Pellervon taloudellisen tutkimuslaitoksen työpapereita

ellervo Economic Research Institute Working Papers

N:o 7 (May 1998)

MOVING FRONTIERS: A LOCAL-GLOBAL PERSPECTIVE[1]

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Helsinki May 1998

[1] This paper was presented at the seminar "Economic Justification and Success of Regional Policy" arranged by Pellervo Economic Research Institute and Government Institute for Economic Research, Monday, 4 May 1998.

CONTENTS

NIJKAMP, PETER, 1998. MOVING FRONTIERS: A LOCAL-GLOBAL PERSPECTIVE. Pellervo Economic Research Institute Working Papers No. 7 (1998). 28 p. (Pellervo Economic Research Institute PTT, Eerikinkatu 28 A, 00180 Helsinki, Finland). ISBN 951-8950-79-2, ISSN 1455-4623.

ABSTRACT: The paper addresses the position of peripheral areas from both a local and a global perspective. It is argued that the drive towards a network economy - often global in nature - has far reaching implications for the economic and geographical profile of border regions. The paper starts off from a theoretical perspective and shows that modern network theory - in combination with transaction cost theory - may offer a meaningful operational analytical framework for understanding the changing positions of regions in our world.

A major question is then whether the new spatial dynamics will lead to convergence or divergence patterns among regions. A critical overview of convergence theories - against the background of globalisation phenomena - is then given. It is argued that there is a tendency towards club convergence.

The consequences for regional development policy are next spelt out. There is no uniform policy panacea; policy strategies have to be fine-tuned and tailor-made, and should address the specific needs and opportunities of regions.

Finally, the position of border regions is revisited. It is argued that accessibility policies aiming to alleviate the negative consequences of peripheral location deserve priority, provided the region has sufficient economic self-reliance to cope with competition from outside.

Key words: *Network economy, club convergence, border regions*

NIJKAMP, PETER, 1998. RAJAT LIIKKEESSÄ: PAIKALLINEN JA GLOBAALI NÄKÖKULMA. Pellervon taloudellisen tutkimuslaitoksen työpapereita n:o 7 (1998). 28 s. (Pellervon taloudellinen tutkimuslaitos PTT, Eerikinkatu 28 A, 00180 Helsinki). ISBN 951-8950-79-2, ISSN 1455-4623.

TIIVISTELMÄ: Tässä esityksessä syrjäisten alueiden asemaa käsitellään sekä paikallisesta että globaalista näkökulmasta. On väitetty, että siirtymisellä kohti verkostotaloutta - joka usein on luonteeltaan globaalia - on kauaskantoisia vaikutuksia maiden reuna-alueiden talouteen ja talousmaantieteelliseen profiiliin. Tämä työ alkaa teoreettisella tarkastelulla ja osoittaa, että nykyaikainen verkostoteoria - yhdistettynä liikekustannusteoriaan - voi tarjota järkevän operationaalisen analyysikehyksen alueiden muuttuvan aseman ymmärtämiselle.

Yksi merkittävä käsiteltävä kysymys on, tarkoittaako uusi alueellinen dynamiikka konvergoivaa vai divergoivaa kehitystä alueiden välillä. Tässä työssä luodaan kriittinen katsaus ns. konvergenssiteorioihin - globalisaatioilmiön taustaa vasten.On havaittu, että alueiden ja etenkin maiden välillä on muodostumassa konvergenssi-klubeja.

Työssä tarkastellaan myös aluepolitiikan seurauksia. Havaintona on, että yhtenäistä standardiratkaisua alueellisiin ongelmiin ei ole, vaan strategiat on hienosäädettävä ja räätälöitävä sekä kohdistettava alueiden erityistarpeiden ja mahdollisuuksien mukaan.

Lopuksi palataan reuna-alueiden asemaan. Väitetään, että alueen saavutettavuuteen tähtäävä politiikka, joka pyrkii vähentämään syrjäisen sijainnin aiheuttamia negatiivisia vaikutuksia, ansaitsee tärkeysjärjestyksessä etusijan. Tämän edellytyksenä luonnollisesti on, että alueella on riittävä taloudellinen itseluottamus pystyäkseen vastaamaan ulkopuolelta tulevaan kilpailuun.

Avainsanat: *Verkostotalous, konvergenssiklubit, reuna-alueet*

1. TRENDS TOWARDS A NETWORK ECONOMY

Traditionally, border areas are regarded as low opportunity regions. The geographical isolation of such areas causes a low competitiveness profile as a result of relatively high transportation costs and low economies of scale and density. In many countries, border areas are regarded as economic problem regions which are often supported by policy stimuli (e.g., infrastructure subsidies). A significant part of the structural funds of the EU is based on this background view.

Recently however, also many studies have been published which demonstrate the growth potential of border areas. Through their geographic position border areas may act as strategic contact and communication regions between different economies which are interlinked by means of cross-border trade and transport flows. There are several examples which show the validity of this argument, e.g. new emerging cities near the US-Mexican border, cities like Aosta and Bellinzona near the Swiss-Italian border etc. (see e.g. Ratti and Reichman 1993). In this context, the notion of an 'active contact space' has been introduced.

Apart from connectivity reasons, there are also other strategic elements which may offer border areas a competitive advantage. Especially in case of infant industries, emerging new firms may need a protective - and hence less accessible - environment to develop a market niche. Examples are the Swatch industry in the Swiss Jura or Lego in Billund (Denmark). It seems thus plausible that peripherality may also offer a temporary protective shell for specific branches of the industry.

In recent years we are witnessing drastic changes in the industrial composition and mechanisms of our world. Cities, regions and nations world-wide exhibit complex and turbulent movements induced by indigenous growth and spatial connectivity. In the past decades, structural change and differential (fast and slow) dynamics have become a dominant feature of economies at all levels, where stability is substituted for transform-ation. After the era of the **Industrial Revolution** in the second part of the last century which was marked by new ways of organising production and transport on the basis of new technological innovations favouring large-scale production, we observe in the second part of this century a new phase in the history of our developed world, viz. a **Network Revolution** marked by interconnected modes of production and transport on the basis of radical restructuring of logistic, informational and communicative processes favouring neo-Fordist types of production including the emergence of component industries (see Lagendijk 1993).

The changes we are observing nowadays have several important dimensions, each relating to and interacting with a number of others. **Spatially**, we see new trends

reshaping the location of goods handling activities (and also the location of information-handling activities) between and within regions and nations, where interconnected nodes play a strategic role. **Sectorally**, the Network Revolution incorporates both the growth of tertiary activities, and the changing relationship and blurring differentiation between manufacturing and service industries. And finally, from an **organizational** perspective, new developments reflect important changes in the nature and forms of the relationship between enterprises, and the ownership and control of these enterprises, a phenomenon supported by competition and deregulation.

The recent revival of Schumpeterian views on current spatial economic restructuring phenomena has increasingly induced scientific interest in innovation and economic transformation (Giersch 1984). Both the behavioural stimuli and the selection environment for the creation and adoption of technological and organizational change in firms have become a subject of intensive scientific investigations. In this context, a rich field of economic research on spatial dynamics has recently been developed, for instance, long waves analysis, network configurations, technogenesis conditions, impact studies on small and medium sized enterprises, neo-Fordist structural approaches, labour market dynamics, and the growth potential of high technology industries. Clearly, various studies have been devoted to the seedbed conditions of new technologies, especially in relation to small and medium sized firms (Kamann and Nijkamp 1991). In this context, several new frameworks of analysis have been developed which have attracted much attention, such as the spatial incubator hypothesis and the spatial product life-cycle model. In the same vein, also **industrial dynamics** has received much attention in the past decade.

It is noteworthy however, that in the Schumpeterian view entrepreneurial innovation is not an exogenous determinant of economic growth, but an endogenous force in a profit maximizing economy. Thus, the profit motive, which is crucial to survival in a competitive system, is the main driving force for adopting and generating innovations and hence of cyclical economic patterns. Clearly, the discontinuities associated with the adoption and diffusion of innovations may lead to perturbations in a spatial-economic system and hence lead to sometimes unpredictable movements.

An interesting phenomenon that has recently emerged in the economies in many countries and regions is the awareness and appreciation of emergence of a **network society**. A network is a particular organization of an economy based on synergy via actor dependency and operating mainly via nodal economic regions connected by various modes. Especially the rise of the **information economy** has caused this new network-based structure in the evolution of spatial economic systems. Such networks are also the vehicles par excellence for rapid transition, diffusion of technological innovation, international mobility and knowledge transfer. These new networks are increasingly becoming the vehicles for competition and cooperation in the industrial sector. Organized

production and service linkages in dynamic niches in networks are governing not only international trade (e.g., between the EU and the USA, or between the EU and the Pacific Rim countries), but - by way of a fractal representation - also the interaction patterns between regions or cities.

In light of these developments, the present paper seeks to offer an answer to two research questions:

- which theoretical frameworks can be envisaged that explain the above dynamics in spatial industrial development?
- which policy lessons can be drawn that map out the proper responses to the above transformation processes?

To offer an answer to the first question, we will in the next section discuss three alternative explanatory frameworks, viz. the eclectic theory, the transaction cost theory and the network theory. Next, the description of a new methodological framework will be based on recent changes in industrial networks in a spatial setting.

2. EXPLANATORY ANALYSIS FRAMEWORKS

Our industrial world is in a state of flux. Industrial linkages have in the past decades increasingly assumed the form of internationally operating industrial networks. This has exerted a profound impact on the volume and structure of international trade (e.g., containerisation, outsourcing) and service delivery. In addition to such external network developments, also the transaction costs for intermediate deliveries made up an important motive for such changes. The economic organisation of modern industries can essentially adopt three arche-types,, viz. **market, hierarchy** and **networks**. A market configuration takes for granted that a firm has a flexible behaviour and buys its necessary inputs from other producers as intermediate goods on a competitive market, thus incurring high transaction costs for ad hoc contracts and less stable relationships. A hierarchy is an organisational structure where a significant part of the firm's industrial production is carried out inside the own corporation. And finally, a network is a sustainable organized industrial structure characterized by sets of two or more connected exchange relations between economic actors based on interaction and mutual linkages (Hakansson 1987).

The above mentioned far-reaching transformation in both the global economy and the regional economies in terms of industrial structure and organization has provoked the birth of various explanatory frameworks. These frameworks have emerged in geography, regional science, industrial economics and international trade theory. There is a wide variety of such new theoretical paradigms, but some major representative classes in new theoretical thinking are the **eclectic theory,** the **transaction cost theory** and the **network theory**. All of them serve to offer more adequate insights into the backgrounds and consequences of our 'Schumpeterian era' (Giersch 1984), with a clear emphasis on industrial dynamics in space.

The eclectic theory addresses the issue of foreign investment and trade from the viewpoint of internationalisation of international production (see Buckley 1988; Dunning 1988a, 1988b). This approach takes for granted that multinational firms have a certain competitive asset (e.g., a high quality labour force, a superior technology) which is exploited internally within the firm's international organisation, rather than using e.g., a license system. This is mainly done because of market imperfections and location-specific advantages (see Lagendijk and Van der Knaap 1993). Especially the eclectic theory of Dunning has offered interesting contributions to a better understanding of international production and foreign investment. Three main categories of international investments are distinguished by him: localised resources which encourage resource-seeking investments; markets, which lead to profit-seeking investments (e.g., import substitution); and advantageous production inputs (e.g., labour) which attract rationalised production strategies. The main emphasis is thus on internationalisation of multinational

companies. Less attention is given to transaction costs or network configurations, issues which will now be discussed.

Next, we will address the **transaction cost theory**, originally developed by Williamson (1979). The author focuses in particular on the choice between self production (inside the hierarchy of the firm itself) or farming out (via the market). A transaction means then essentially a contractual agreement and communication with the external environment. Clearly, in a complex multi-product multi-location multi-plant firm the number of transactions may be formidable. The choice for a particular form of input channel depends then according to Williamson on the asset specificity, the uncertainty and the frequency of the transaction concerned. Based on these characteristics, the author makes then a typology of organisational forms of industries and their associated contract forms (so-called governance structures). It is thus clear that the transaction cost theory places most emphasis on efficiency gains in bilateral contacts and contracts between firms. This is of course a major limitation of this theory, as, for instance, historical, political or institutional influences are receiving relatively less attention.

Finally, we will focus on **network theory**. Networks are essentially an intermediate form between the market and a hierarchical industrial structure (see Davidson 1995). The benefits of a network originate normally from a synergy as a result of a complementarity of capacities and activities. Efficiency is enhanced by a combination of both competition and cooperation inside the network, supported by high quality communication and regular interactions among interdependent partners. Thorelli (1986) and Hakkansson (1987) emphasize in particular the long lasting structuring effects of a network, even though the firm's position in a network may change (this position is a market asset built up by investments in manpower, time and scarce financial means) (see also Hinterhuber and Levin 1994). Networks may also exhibit different forms: vertical, horizontal, diagonal and internal, depending on the firm's internal organisation and competence as well as on the external market conditions. It turns out that in general the motives for partners to cooperate in a network are stemming from efficiency increase, information gathering, power position and external economies (see Capello 1994). Thus, network theory offers a rather broad perspective for the behaviour of network partners, especially since financial-economic arguments as well as strategic considerations play a critical role.

The use of network theory has mainly received a path breaking stimulus due to the work of the IMP Group (Industrial Marketing & Purchasing Group), an informal group of scientists involved in network research in industrial markets. (see Axelsson and Easton 1992, Johansson and Mattsson 1991, Pfeffer and Salancik 1978 and Hakansson 1987).

It should be added that the more recently developed **value chain theory** (see Porter 1991) is also based on a network framework by focusing on competitive advantages to be

achieved through the choice of strategically relevant activities of a firm (including its position in a network). In this context, also the firm's logistics, marketing, R&D, trade channels etc. have to be taken into consideration.

The previous frameworks have emphasized in particular the strategic relevance of efficiently operating networks among firms in a competitive environment. Vertical integration, horizontal integration, outsourcing and search for new markets determine the industrial dynamics of our world. We will now in the next section address the question whether from a socio-economic perspective the above mentioned changes in force fields will lead to spatially convergent developments. This issue is of course of particular importance for border areas.

3. SPATIAL COMPETITIVENESS AND CONVERGENCE

Many peripheral and border regions have a weak economic structure and are faced with severe barriers (in terms of infrastructure and skilled labour force) which prevent a smooth and effective adjustment to the new economic opportunities in a globalizing network economy. There is no doubt that such regions have to improve their competitiveness in order to play a significant role in a globalizing open market economy. Competitiveness means in this context that the region has to do things better than others, and also that it has to do things together with others. Mobilizing and joining the indigenous regional forces will hence be a major challenge at the interface of the public and the private sector.

How can existing regional development initiatives be reinforced and how can the necessary critical mass of mature regional development programmes be created, if a region is still hampered by various structural bottlenecks? In general terms, one may argue that a drastic improvement of the region's comparative advantage is a sine qua non. This implies in particular:

- there have to be sufficient locational advantages in terms of inexpensive (both skilled and unskilled) labour and low real estate prices
- private sector initiatives have to be supported by 'good governance', i.e. non-bureaucratic, flexible and efficient policy and management procedures (e.g., quick approval procedures, efficient customs procedures, sufficient supply of public services etc.)
- the region as a whole has to develop a sense of Schumpeterian entrepreneur-schip where new initiatives are welcomed and where the public sector offers support mechanisms for private sector developments
- the lack of accessibility and connectivity has to be remedied by developing a consistent new infrastructure policy over a long-range period which serves to alleviate the disadvantages originating from the peripheral character of the region.

In the present section we will address several questions related to regional development policies, based on a concise overview of convergence debates and endogenous growth theory.

At the outset it should be noted that 'the regional problem' is not an unambiguous concept. Regions may face a variety of problem situations (such as peripherality, high unemployment rates, high (or low) population densities, low education, inferior infrastructure, poor environmental conditions etc.) and many of these problem situations are directly or indirectly related to regional welfare levels (or lack of growth therein). Seen from this perspective, regions do in general not differ

from nations: nations also exhibit persistent disparities in GDP per capita. But there is a basic difference with respect to regions: a system of regions is much more an open trade system without customs' or institutional barriers. Thus, competitiveness plays a crucial role in regional development. This is once more important, as also factor mobility tends to be much higher between regions, especially the higher skilled labour market segments.

Clearly, border regions often face an intermediate position: the border creates a semi-permeable barrier, while there is an open connectivity to the central areas. Is it possible to turn such impediments into new opportunities?

Competitiveness is often seen as a vehicle to cope with 'the regional problem'. It should be added that interregional competitiveness has a clear spatial (geographical) dimension, as firms (or even entire regions) in a competitive environment may address different geographical markets, ranging from local to global. Of course, this depends largely on the type of product and the industrial organisation of the sector concerned.

In a static competitive market, industrial competition means that there will always be winners and losers, but it is important to recognise here the difference between absolute and relative winners (or losers). This is undoubtedly important in a regional economy, as it often happens that a region is growing in absolute sense (e.g., in GDP per capita), while it is losing on its market share (in relative terms). This may widen the welfare gaps between various regions, thus aggravating the equity problem among regions. The basic question then is whether - after an initial period of growing interregional disparities - in the longer run a process of spatial-economic convergence will start. This means that the regional question does not only refer to a static allocation problem, but also a dynamic long-range qualitative conversion phenomenon (Nijkamp 1998).

It is important to realize that regions are more sensitive to comparative advantages and competitive strategies of various players, and hence display also more severe fluctuations in income and employment. Following Keynesian recipes, regions tend to generate a relatively high output growth, if they are involved in export activities. But there are also other factors which lie at the heart of the existence of regional disparities. This may be understood by referring to the well-known efficiency-equity dilemma. A regional which is lagging behind may have an improper use of factor inputs which prohibits the achievement of a maximum output growth. This means that a first goal of regional development would have to be an optimum allocation of input with a view on a maximum contribution to a regional production. This efficiency goal is often contradicted by another policy consideration, viz. equity. Regions do not grow to the same extent, with the consequence that regional disparities emerge. Some of

such disparities may be temporary in nature (e.g. due to market adjustments), but others are more persistent and may exhibit a robust pattern over many generations. From a policy perspective, this provokes the need to mitigate such interregional welfare differences, but it is clear that the goal of a reduction of welfare discrepancies is usually - and certainly in the short run - at odds with the goal of a maximum contribution of each region to overall output.. This issue has recently in Europe provoked the question whether huge sums of public financial support would have to be given to 'lost cases', and whether the money should not have been spent otherwise, e.g. to the creation of promising opportunities.

The efficiency-equity dilemma has generated a world-wide debate among economists on the question of convergence in the medium or long run. Based on a simple neo-classical growth model, it can easily be demonstrated that convergence between regions in terms of output per capita will arise as a result of declining output of capital, a phenomenon which may be ascribed to declining revenues of capital accumulation (Armstrong and Taylor 1993). This situation would mean that in the long run the 'forerunners' will lose their comparative advantage and the 'backrunners' will sooner or later catch up their delay. In the economics literature the convergence theory has extensively been discussed; it has led to adjusted concepts such as absolute versus conditional convergence, or beta convergence versus delta convergence (see also Van de Klundert 1998).

Unfortunately, the empirical facts on convergence are not conclusive. There are several cases where within a country convergence has occurred, but there are also cases where persistent welfare differences continue to exist. For instance, in the EU 15 the maximum difference in terms of GDP per head amounts approximately to a factor 6. The existence of large welfare discrepancies is also an argument to exclude backward regions from a joint economic market (such as the EU).

It is interesting that in recent publications on regional growth differences, much attention has been given to the effects of globalisation which position regions in an international force field with many opportunities, but also with many problematic outcomes for vulnerable regional economies (Kohno *et al*. 1998).

Scientists with an optimistic perspective on globalization (usually economists) have pointed to several other positive features, in addition to an avalanche of product and process innovations plus the lower costs of communication and transportation. One of the most important is that the growth in international trade does not only lead to an enhanced economic welfare for countries being able to exploit comparative advantage, but the efficiency gains from economic integration may also fuel technological progress and scale economies which in favourable circumstances may lead to

permanently higher global growth rates for the winners.

In terms of equity, an advantage is that the increasing fluidity of innovation diffusion and absorption contributes to the convergence of living standards between regions or countries which share common technologies and this convergence is reinforced through trade and factor mobility. Convergence is in the standard neo-classical growth models due to diminishing returns to capital accumulation but evidence is now emerging that trade can also contribute to the catching up of the lagging regions and countries. This would suggest that strategic but selective openness might be beneficial to border regions.

A situation of competitive openness forces governments also to develop prudent fiscal and monetary policies and to maintain low rates of inflation. That the discipline of the international marketplace reduces the degrees of freedom in economic policy is clear, for example, from the political difficulties surrounding the introduction of the European Monetary Union (EMU). Finally, rather than being a threat, rising incomes in huge emerging economies such as China and India open up vast export opportunities for the developed world. The main challenge of peripheral areas will be to develop strategies that ensure a participation in this globalisation process.

Against the widely shared belief in the fruits of globalisation, there is also an emerging school of thought which emphasises the costs of globalization. Its proponents are found primarily among protectionists, politicians and adversely affected sectors. One of the most often heard complaints is the fear for the adverse effects of globalization-induced structural change. Globalization may have accelerated the change in sectoral composition of the economy in a way which has led to large adjustment costs for both capital and labour. In many developed economies this process has often taken the form of a decline in manufacturing. This development is commonly referred to as deindustrialization (or hollowization). In such situations are not only resources withdrawn from declining industries, but are also increasingly taken abroad in order to reap higher rates of return to capital. The effects of globalization on the service sectors are not unambiguously positive either, as for example the Internet may substitute for local intermediaries which are real estate agents or travel agents. Clearly, current spatial dynamics tend to create both winners and losers.

It should be added that the speed of change is faster than ever before which has, in many cases, led due to limited substitution elasticities between different types of occupations and the time-intensive processes of upskilling and retraining, to growing unemployment. Restructuring has also caused growing wage premiums for highly skilled internationally mobile people in professional and managerial occupations,

while it has marginalised blue collar employment in traditional industries. There is therefore little dispute that globalization has for the time being led to growing income inequality, despite the national welfare gains. Thus, globalisation offers a clear case of the equity-efficiency dilemma and will continue to exert a significant impact.

It is also often argued that increasing returns in information-related industries may lead to a monopolisation of large enterprises in certain areas (e.g., Microsoft in the software industry) or the widespread adoption of sub-optimal technologies due to network externalities. Surprisingly, an increasingly important, opposite force is the re-emergence of the small firm, as falling communication costs permit specialization, niche marketing and outsourcing. The global trend in the growth of small firms encourages competitiveness and innovation. The two forces of market concentration and dispersion operate at the same time and lead to a growing complexity and diversity of global market structures, with clear consequences at the local level.

The various force fields can also be depicted in a stylized - and hence illustrative way (see Figure 1), which shows different mappings of global-local configurations.

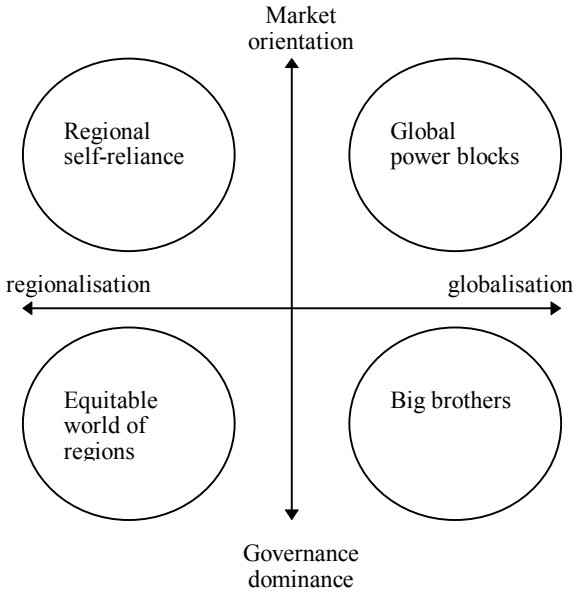

Figure 1. Force fields in the age of global and regional developments

It is now an intriguing question how the regions of the world are faring under these far-reaching global changes. It is hard to find regional islands of stability amidst the global turbulence. The pattern is extremely diverse. Some regions (e.g., California, Ile-de-France, Bavaria, Randstad Holland) have become “world regions” with a far-reaching impact on the world economy as a whole. Others have become important specialised areas providing services or manufacturing to a significant part of our

world (e.g., Third Italy, the Greater London area, Silicon Valley, Tokyo Metropolitan area). And yet others have become the losers in the new competitive world economy (e.g., regions in Central and Eastern Europe, Greece, parts of Latin America). And finally, there are also peripheral regions, which due to historical or ecological advantages are booming as a result of global tourism flows (e.g., the Greek islands and the Turkish coast, the Caribbean, northern Queensland). Virtually all regions in the world seem to be in a state of transition as a result of global forces (economic, geopolitical, cultural, demographic).

The question is now whether this structural dynamics will shape more equitable conditions for individual regions. In recent years we have witnessed an increasing interest in the theory of club convergence (see e.g. Durlaug and Johnson 1995, Galor 1996, Levine and Renelt 1992, Quah 1996, Sachs 1997). The idea is that regions or countries do not move to one and the same average level, but tend to move to a series of different welfare levels. This so-called club convergence has become a source of much research. The reason for the emergence of multiple convergence levels may be found in intervening factors such as institutional frameworks, climatic conditions, geographical positions etc.

It seems likely that there is a world-wide tendency towards 'clubs' of regions, so that a convergence of individual regions to one of these clubs seems to take place, which would eventually lead to a fragmented regional convergence. Although the exact nature of this global change and the related local-regional development cannot as yet be easily and precisely mapped out, it is plausible that development prospects, uncertainties and interdependencies of regions are key features. Research into the major issues, challenges and problems of the regions has only recently commenced. The regional configuration in the age of globalization appears to turn increasingly into a multi-polar spatial system, in a partly fragmented way (following the end of the cold war) and in a partly uniform way (following the diminishing of the North-South conflict). The global picture of the regions is rather heterogeneous. This applies of course also to border areas, but the overall empirical insight into the nature of the regional disparity problem is still fragmented. Seen from an empirical research perspective, we may argue that systematic data collection and economic monitoring at a regional scale is necessary to build up a reliable policy assessment and evaluation methodology. Such information would also be helpful to find out whether actually in border areas there is regional convergence to an average national level, or whether socio-economic clusters of
regions are emerging which display significant welfare disparities between these region-clubs (exhibiting a pattern of forerunners and backrunners).

A final remark is still in order here. Besides the well-known efficiency-equity dilemma and the issue of regional convergence, there is also the need for regional sustainable development (in terms of environmental quality, safety and security). The goal of regional sustainable development may be at odds with the goals of efficiency and equity, which once more may restrict the degrees of freedom of a regional development policy. On the other hand, the goal of regional environmental sustainability may be supportive with respect to efficiency and equity, e.g. in areas with a high environmental quality which may reap the fruits of tourism or cultural visits. This may offer interesting opportunities for border regions.

4. NEEDS FOR REGIONAL POLICIES

A major question at present is whether a public policy support would have to take the form of income transfer (e.g., subsidies, fiscal mechanisms) or whether a fine-tuned overhead policy (e.g., education, infrastructure, innovation) would have to be induced. Clearly, the regional development problem has led to a fundamental debate on the role of governments in regional-economic policy in the age of globalisation.

It is interesting to observe that in the post-war period the influence of public policy on the society and the regional and national economy has drastically increased. As a result government expenditures have significantly risen (absolutely and relatively), while also more regulatory measures have been introduced. Social security systems were, for example, largely expanded, while the government assumed inter alia responsibility for the financing and operation of transport infrastructure, education and communication.
In the past decade however, the societal and institutional environment in which economic agents were used to act has changed dramatically. This holds for the public as well as the private sector: the devolution movement has induced an increased competition between companies and countries. As a result, a rising need for restructuring and renewal has come to the fore, and hence the Schumpeterian paradigm of 'creative destruction' has gained popularity. Even large companies like IBM and Philips appear to face problems when lags in renewal cause structural inefficiencies. The same may hold for countries and regions: the economic development of most Western-European countries and regions, for example, lags behind that of the US and the Pacific, which may be due to a more regulatory and conservative institutional environment in Europe.

The new institutional model which has arisen is a blend of competition and cooperation between actors or stakeholders. The connecting constellation is mostly made up by network configurations, with key players in the nodes of such a network. It is increasingly recognised that a network model may be an efficient tool for competition and strategic policy.

These trends apply to both the private and the public sector. World-wide, we observe much more cooperation between countries and between trade blocks (EU, NAFTA ASEAN), while unnecessary regulations are abolished (labour market, capital market). It has become clear that good governance in the public as well as the private sector may be of increasing importance for the economic development and welfare of countries, regions and their citizens. Thus, institutional reform seeking to enhance the efficiency of public (regional) authorities seems to be inevitable. This has led to interesting new forms of public-private modes of cooperation which are different from

traditional views on the role of governments. Clearly, there are several standard reasons for governments to intervene in the market. They are well documented in the literature and will not be repeated here. But new institutional ramifications of public and private initiatives seem to emerge and flourish, and these need more research attention.

As a result of external - mainly globalisation - forces and of institutional reforms, it is increasingly recognized that regional development strategies are of a multi-faceted nature. There is not a single and simple recipe to solve the efficiency-equity dilemma. We will discuss here three anchor points for enhancing regional competitiveness, viz. the **regional economy**, the **industrial development** and the **entrepreneurial behaviour**.

In the history of regional-economic development policy several approaches have been advocated to increase regional efficiency and at the same time to reduce inter-regional disparities. The growth pole concept, for instance, has been an established policy concept in the seventies. Although this notion as a policy orientation has faded away, it has re-emerged under different names such as technopoles, innovation centres, technology districts, islands of innovation etc. The basic idea is that not all regions can be at the same time a subject of public policy, as this would be too costly and would not create a sufficiently large critical mass. Thus, selectivity is a sine qua non for an efficient regional development policy. Although some successes are certainly found, it turned out that the scale and critical mass of such initiatives was in many cases insufficient. More recently, an interest has emerged in spatial-economic corridors (e.g, the Blue Banana stretching from London via Holland and the Ruhr Area and Paris to Baden-Württemberg and North Italy and mapping out the Western European economic force field). Clearly, such geographical maps are imaginative and provoke political debate and action, as they reinforce the socio-economic and geographical image of an area in connection with adjacent (cooperative and competitive) areas. In the same spirit, we also witness an increasing interest in spatial-economic networks of a trans-national nature (e.g., Euregions), which are also meant to maximise the benefits through cooperation of competing regions. Especially the latter strategy may be relevant for border regions.

Secondly, seen from an industrial development perspective, much attention has recently been focused on regional self-reliance, on a much more active and self-conscious involvement of the region and all its (private and public) actors. This is in line with the present decentralisation movement in many countries. Competitiveness is then not regarded as the result of a top-down support, but is preponderantly contingent upon the creativeness of the regional base. This has led to the idea that the regional (or local) milieu is a critical success factor for any regional development policy. Business

climate is not something which can be imposed upon the region, but is a spin-off of the existing entrepreneurial spirits in the region. Clearly, such entrepreneurial conditions are certainly more likely to exist in larger agglomerations, but they may also be the result of creative entrepreneurship in even isolated areas (cf. e.g., Legoland or Jura). Another, increasingly important factor is the industrial organisation in a region, in particular the network configuration between industries mutually and the linkages with the public sector. This may lead to new clusters of regional innovation, following also Porter's diamond approach where communication channels, personal relationships, geographical proximity, and local ties are seen as necessary conditions for regional development. In addition, policies are based on the indigenous strength of the region, while there is also the need to attract foreign capital. Foreign Direct Investments (FDI's) are often seen as the miraculous vehicles for accelerated regional development. Necessary as they may be, it ought to be recognized that the interest of FDI's is in general not in the regional development as such, but in the exploitation of the region's comparative advantage for the company itself. More recently, we have also witnessed successful industrial policies focused on the creation of regional industrial networks (so-called 'filières'), sometimes also with the assistance of foreign participation. The success story of the Third Italy is a good example of this new potential.

Finally, from a micro (entrepreneurial) viewpoint it is clear that regional development is often a matter of SME's, of small-scale initiatives, but if they occur in large numbers they may add significantly to regional growth. Thus, the nurturing of existing (incumbent) business life and the creation of favourable incubation conditions for new business initiations is an important regional development task. Clearly, the attraction of multinational, large-scale firms is an interesting option, but may make the region also vulnerable, as such companies do often exhibit 'nomadic' behaviour (see Bruinsma et al. 1998). This would mean that regional policy would have to address both SME and multinational activities. A proper response of successful companies may be diverse (see also Van Geenhuizen and Nijkamp 1998):

- a better linkage to the global economy by investing in the ICT sector;
- an increasing emphasis on scaling up by fusion and take-overs (e.g., in the financial sector);
- pervasive market penetration by quality enhancement (e.g., consumer electronics);
- 'back to basics' strategies with repulsion of other activities (e.g., car industry, micro-electronics);
- emphasis on quality and flexibility (just in time principles, temporary contracts for employees);
- developing national and international strategic alliances, in order to secure the indigenous competitive position;
- support for 'regional champions' which are able to conquer broader markets.

Thus, it is clear that - in addition to conventional roles of regional policy addressing overhead investments (e.g., in the education sector or in infrastructure) - indigenous regional entrepreneurial and administrative skills are necessary to put the region on an accelerated growth path. Networking will then turn out to be a critical factor for business attitude, while the region as a whole would have to build on information and communication infrastructure which would encourage the region to abandon inertia and to become a learning region in a Schumpeterian sense. This would also be of critical importance for the attraction of foreign capital to the area.

5. THE POSITION OF BORDER REGIONS

Border regions are not exceptions, but rules in the political geography of many areas in our world. For example, Europe has approximately 10.000 km. of land frontier, 60 percent of which consists of internal borders between EU members. Border regions located at two sides of the frontier between nation states have often big differences in language, culture and socio-economic conditions. Border areas are often typical examples of peripheral regions hampered in their development by their isolated position. Such regions had usually only an orientation towards the central areas of a country and ignored their back-to-back neighbours (cf. Gradus and Lithwick 1996).

In a document of the European Commission on 'Europe 2000; Outlook for the Development of the Community's Territory' (1991) the position of border areas is phrased as follows: *"Changing borders have been a feature of the Europe's political history, but most of the borders of the community have been in place for a century or more. Their experience has shaped the economic, social and cultural development of border regions and cities for even longer than that"* (p. 169). After the completion of the single European Market the frontier obstacles will mainly be removed, so that by then the border areas will assume a new position in the EU, as they represent both a potential impediment to and a potential model for the integrated development of the economic and physical space of the European territory. In the latter case new 'transborder' regions may emerge with a strong growth potential, given their transfrontier contact orientation.

The current regional economic profile of European frontier regions is far from favourable. They have in general a **poor economic performance** as a result of:

- a peripheral location and an isolated position with respect to the economic and political heartland of their country
- a separation between the economic centres of a frontier region and their natural hinterland thus leading to a distortion in patters of trade and service provision
- a relatively poor infrastructure endowment because of their geographical location on extreme arteries of transport and communication networks
- (often) a poor natural resource endowment, a low agricultural productivity and a less developed social and business service provision
- large differences in legal, administrative and social welfare systems as well as in language and cultural traditions which altogether hamper communication and cooperation with regions across the border.

In general, the present EU border areas have a lower income level per capita and a higher unemployment rate than the other regions of their countries. It is evident that regions along the (disappearing) European frontiers will be strongly affected by the increasing integration of the Community. The degree to which they will be influenced depends on

the question whether these regions are **internal** or **external** border areas.

Internal border regions will face three major changes:

- **economic integration effects** leading to an increase in cross-border trade and service flows and in international labour movement (cross-border community, e.g.)
- **transnational infrastructure investment** leading to an expansion of transportation networks, public utilities and services and new economic activity patterns
- **uniformity of legal and administrative procedures** leading to closer cooperation with neighbouring cross-border areas and to cross-border development initiatives.

External border areas will be facing major development bottlenecks, although the trade agreement with many countries outside the EU (e.g., the EFTA-countries and former COMECON countries) will alleviate their disadvantageous position. A major problem to be expected in these external border areas is the foreseeable flow of immigrants from non EU countries. At present, initiatives are developed by the EU to ensure a sufficient linkage of these areas to wider Community networks and to let them play a pivotal role in economic cooperation with adjacent non-EU countries.

Border areas suffer in general from a lack of interaction and communication, thus leading to high transaction and transportation costs for economic activities in these areas. An illustrative list of potential barriers to interaction is given in Table 1. Clearly, vanishing borders also lead to an opening up of regional economies to many new economic and social influences, which may generate an increased competition between these regions. Thus, a fine-tuned and tailor-made development strategy seems to be the best guarantee for a reinforcement of regional potentials.

In the past decade, two major strategies have been proposed - in addition to conventional regional development initiatives - to assist border regions in enhancing their competitiveness, viz. foreign investments through free enterprise zones and gateway strategies. Both will now concisely be discussed.

The attraction of foreign investments is an integral part of the industrialization policy in many border areas. In particular, many governments have been actively seeking to attract foreign investment in high technology activity to help their region move more quickly into more advanced industries (cf. Dicken 1992). One of the instruments of such a policy is the establishment of **free enterprise zones**, where exemption from certain kinds of legislation and special incentives apply. There is however, a large variation in the type of 'enclaves', such as free trade zones, export processing zones, free ports, etc. The establishment of zones for free enterprise is an instrument within a particular (regional) industrialization policy that a country pursues. On the **national** level, broadly speaking, three kinds of **industrialization strategy** can be distinguished:

- local processing of indigenous raw materials;

- import-substituting industrialization;
- export-oriented industrialization.

Table 1 Potential barriers to interaction

	Type of Barrier
A. Physical	Spatial distance Natural obstacle Congestion (overload) Lack of safety (criminality) Missing (small) links in traffic infrastructure
B. Economic-Political-Legal	
a. Unintended	High cost of network participation Monetary system Lack of convertibility of currency Legal system Unstable power structures
b. Intended	Political borders Trade borders and (fiscal) tariffs Market regulation Border customs formalities (waiting time) Property and ownership regimes Secrecy
C. Socio-Cultural	
a. Unintended	Small skills of actors to identify networks (mental map) Language and vocabulary disparities Educational and income disparities Cultural behaviour disparities Network inertia
b. Intended	Political and ideological protection Social group protection
D. Time	Peak and off-peak hours Divergent (global) time zones

Source: Van Geenhuizen and Nijkamp (1998)

The success of these strategies depends on a number of factors, such as the economy's resource endowment (both physical and human), its size (particularly of its domestic market) and the attitude of the national government. For example, not all 'transition economies' or developing countries possess a natural resource endowment which could enable the development of a local processing industry. And even those which have such an asset may experience severe difficulty in setting up a local industry: developed

country's tariffs tend to be higher on processed than on unprocessed materials and, when multinational corporations are involved, it may be corporate policy to locate processing operations outside the raw material producing country.

It is noteworthy that the rise of the major Newly Industrialized Countries is only to a very small extent based on local materials processing. Neither Singapore nor Hong Kong had the material base to support such a strategy. But even in countries such as Brazil, industrialization has followed the pattern of initial emphasis on import substitution, eventually followed by a shift to export-oriented policies. Particularly one type of free enterprise zones is closely related to export-oriented **manufacturing** policies and the attraction of foreign investment, namely the export-processing zone. On the other hand, freeports and free trade zones are often **commercial** zones only. These various forms of zones will now be discussed more in detail.

Many developing countries have used **export-processing zones (EPZ)** as one of the instruments aimed at stimulating their export industries and attracting foreign investment. An EPZ is a small separated area within a country, with the purpose to attract export-oriented industries by offering them especially favourable investment and trade conditions compared with the remainder of the host country. In particular, an EPZ provides for the importation of goods to be used in the production of exports on a (bonded) duty free basis. EPZs are set up for actual **manufacturing**: the processing and/or assembly of export products from primarily **imported** materials and components.

EPZs can be seen as 'export enclaves' within which special concessions apply, including a package of incentives (for investment) and exemption from certain kinds of legislation. In addition, within EPZs all the physical infrastructure and services necessary for manufacturing are provided, such as roads, power supplies, and low cost/rent buildings. In various cases the restrictions on foreign ownership which apply in the country as a whole, are waived for foreign companies in the zone.

In developing countries, EPZs have been located in a variety of **environments**, such as incorporated in airports and seaports, or next to large cities. Others have been established in relatively underdeveloped areas as a part of a regional development strategy. With respect to **size**, EPZs vary enormously, ranging from extensive developments to a few small factories. They host employment ranging from more than 30,000 to little more than 100 workers. EPZs have been established in developing countries primarily in **recent** years. By the end of the 1980s, Asia contained approximately 60% of all EPZ employment in developing countries. Major examples are Hong Kong and Singapore, being in fact **entire free zones**, but with export-processing activities concentrated in various industrial estates. The other major concentrations are in Taiwan (80,000 employed in four EPZs), Malaysia (82,000 in eleven EPZs) and South Korea (140,000 in

three EPZs).

In the United Kingdom, the view has developed that the path to a regaining of economic prosperity would lie in restricting government intervention in the market. In the early 1980s, there was a new need and hope that the fruits of market competition and free enterprise could be enjoyed in this way. This goal was behind the establishment of a number of **enterprise zones and freeports** in the United Kingdom.

Enterprise zones and freeports can be seen as a departure from the 'interventionist' philosophy underlying traditional regional policy. Enterprise zones have initially been set up on an experimental basis for a ten year period. Firms located in **free enterprise zones** enjoy two different benefits:

- **tax concessions**, the most important being exemption from industrial and commercial rates, and also 100% allowances for capital expenditure on buildings;
- **simplified** planning procedures, aimed at reducing the gap between investment decisions and the construction of new plants, and **less bureaucratic impediments** such as access to quicker customs procedures.

Freeports are rather different. A freeport is an enclosed zone within or adjacent to a seaport or airport within which goods are treated for customs purposes as being **outside** of the customs territory of the country. Two benefits are enjoyed by the firms located in freeports. First, customs duties, levies and value-added tax payments are paid only when the goods leave the freeport for the rest of the United Kingdom or the European Community. Secondly, the firms benefit from simplified customs procedures.

After the above discussion of the characteristics of various types of FEZs, we now pay attention to their benefits. In general, the effects of instruments of regional economic policy are difficult to assess. For example, job creation and multipliers can only be observed where enterprise zones have been established, whereas it remains unknown what the outcomes in the regions would have been without those zones (zero-case). The discussion will focus therefore, on what has been realized in these zones, without an evaluation in terms of success or failure. With regard to export processing zones the following can be stated. The above indicated 'up-market' shift is still very small, which means that the type of manufacturing and labour force in these zones is still quite uniform throughout the world, namely:

- production of textiles and clothing and the assembly of electronics. Almost half of the labour force in the Asian export processing zones is engaged in electronics industry.

- a dominance of relatively low-skilled workers and a dominance of young female workers.

Regarding the experiences in the United Kingdom in enterprise zones, it can be stated that their value is somewhat in doubt. Investigation has revealed that the majority of the firms in these zones would have existed anyway, most of these in nearby locations.

In general, a generic policy of free enterprise zones for border areas is somewhat doubtful. It must be recognized that there is a fierce 'competition' throughout the world in attracting foreign direct investment, not only in the so-called 'transition-economies', but also in developing countries. In such a situation it is important that the **specific strong points** of a border region are made clear, particularly what can be offered to foreign investors in general and in relation to the instruments of free enterprise zones. At the same time, it is important to have a clear idea about the **type of economic activity** one wants to attract.

It can thus be concluded that specific economic zones which provide a combination of exemption on taxes and duty, use of technological knowledge, and 'deregulation', may likely offer good opportunities for the attraction of foreign direct invest towards border regions.

A second strategy to develop border areas is to reconvert them into **gateways** for transportation and communication. Some regions have successfully adopted such a strategy (cf. Nijkamp and Rodenburg 1998).

The concept of a gateway is not always unambiguous and sometimes it is not clear what is meant by the term gateway. According to Webster's Third New International Dictionary a gateway is: *"a passage for navigation or travel as (1) any one of a limited number of points by which the traffic of a defined region can enter; (2) a point at which freight moving from one such region to another is interchanged."*

It is sometimes claimed that modern gateways can no longer be considered only as points but as areas as well, e.g. internationally accessible host areas for direct investment. As a result, an enlarged definition of gateway activities is required. This definition may cover (Gaebe and Schamp, 1994):

- new forms to organise the commodity flows and new forms to penetrate a hinterland;
- new ways of entering a region or market with direct investment;
- new flows attracted to the area at hand.

From the above mentioned views it can be derived that a gateway is an area that may cover regions of more than one country, through which the distribution of voluminous incoming and outgoing transport flows takes place by means of transfer and transhipment, and in which added value can be obtained by entering new regions/markets

with the help of direct investments.

Clearly, the gateway concept is not entirely unambiguous and still creates confusion. It has even been suggested that the term should be replaced by a better, more specific and descriptive word. The gateway concept does not seem to be sufficiently multi-faceted enough to cover all aspects of bridging strategies which relate to gateway functions. On the other hand, the gateway concept is not specific enough to describe emerging dimensions of bridging strategies (Santalainen, 1995): gateway strategies tend to bring a range of economic benefits to firms, cities, regions or even countries. This is because public authorities can, for example, exploit the location, traffic and communication connections and infrastructure.

It should be added that timing plays a key role in developing successful gateway strategies. The correct timing of major strategic moves such as huge investments forms a critical success factor of a gateway strategy. It is also important that gateway strategies - especially those of an international nature - are developed by the highest possible authorities such as the government or key ministries. In this context, strategic gateways for border areas should in future public strategies be explored and addressed in greater detail than has been done in the past. One of these problems is, of course, the environmental and congestion burden of transit traffic, which causes increasingly high external costs which may reduce the economic benefits. Nevertheless, in addition to the natural resource potential of many border regions, it seems that gateway strategies may act as important anchor points for competitiveness strategies of border areas. Also here it is clear that new institutional modes of cooperation are necessary to ensure benefits to the border areas concerned.

CONCLUSION

Regional policy at the turn of the century will not be more of the same. Regions will have to play a much more active role, even a pro-active role. Backward regions are no longer dependent and weak areas which have to be financially supported by national and supernational governments. On the contrary, they have to develop a learning model to exploit their indigenous potential. In this context, also issues like decentralized taxation schemes and fiscal incentives based on new forms of fiscal federalism ought to be considered. Regional authorities are in the next century no longer dignitaries with a ceremonial task, but have to play the role of a regional management board operating with a sense of Schumpeterian entrepreneurship. They ought to seek for new institutional frameworks supported by modern information and communication technology which may create a new drive to a balanced regional development of less favoured regions.

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