

SERIE RESEARCH MEMORANDA

European Regional Development Policies
and Foreign Direct Investments

Peter Nijkamp

Research Memorandum 1998-2 |



**EUROPEAN REGIONAL DEVELOPMENT POLICIES AND
FOREIGN DIRECT INVESTMENTS**

Peter Nijkamp

pn713

Abstract

Regional development takes place in a complex force field, in which competitiveness is playing an increasingly important role. At present, we observe a re-positioning of regions in an open European space. Vanishing borders will automatically mean an increase of competition between European regions. The driving forces behind such competition are strongly related with the presence of R & D centres and network links with other regions.

The paper addresses the fundamentals of modern regional policy and calls in particular for due attention for the critical role of infrastructure networks in the European unification process.. The changing role of governments in this context is also highlighted. The paper focuses on particular in Central and Eastern European regions and discusses in detail the opportunities offered by foreign direct investments.



1. Regional Development Questions

It is widely accepted that traditional forms of regional policy intervention have not been very successful. Rather than a reduction in intensity of regional policy, most countries have in recent years shown a reorientation of regional policy. This reorientation found its roots in modern (mainly neo-Schumpeterian) views on economic growth, with a strong emphasis on both competitive behaviour (rather than government protection) and innovative behaviour of all regions and promising sectors. As a consequence, the foundations for economic growth, i.e. technology policy and infrastructure policy, have become the focus of regional policy, in the framework of an ecologically sustainable regional economic development (Nijkamp, 1996).

The intensity and orientation of regional policy in most countries is strongly influenced by external conditions, as can easily be demonstrated for the case of regional development in Europe. Until the end of the seventies, regional policy was a recognized and respected part of economic policy, focusing its attention on both the enhancement of economic efficiency (by favouring direct productive activities) and the reduction of undesirable interregional discrepancies (e.g., by subsidizing social overhead capital in lagging areas) (see also Hirschman, 1965). In the period of the economic stagnation in Europe - the first half of the eighties - the policy interest shifted more to economic restructuring, to be induced by favouring competitive behaviour (rather than by protecting weaker parts of the economy). Reaganomics and Thatcherianism were typical illustrations of the policy view that direct government intervention would in the long run be detrimental to the economy as a whole. Beside a dramatic reduction in funds spent directly as subsidies for weaker branches of the regional economy, the rapidly emerging budget deficits forced governments also to reduce their expenditures for new infrastructures, one of the traditional means of regional policy.

Only in recent years the bleak perspective of regional policies has improved in various European countries. The reasons for the revival of regional policy are twofold. First, it has been realized that regions are the 'workfloor' of economic activity and that • in order to be competitive • regions should focus much more strongly on economic

restructuring generated by technological innovation (which means essentially an integration of regional policy and technology policy). Secondly, from a European perspective, the completion of the internal market and the recent shift towards Eastern Europe may endanger a rapid economic progress, if at the same time the intra-European discrepancies at regional levels become too large. In order to avoid a situation that in the nineties the fruits of economic development cannot be reaped because of extremely large interregional economic discrepancies, a more intensified tailor-made regional policy effort became necessary (focusing in particular on infrastructure and technology).

How can 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 entrepreneurship 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 problem regions.

In the next section we will address more in particular the issues of efficiency and equity against the background of regional competitiveness.

2. Efficiency, Equity and Competitiveness

Regions • just as nations • offer a remarkable spectrum of development. Many regions may be seen as problem cases, but it is noteworthy that ‘the regional problem’ is not an unambiguous concept. Regions may face problem situations (such as 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 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 for the higher skilled labour market segments.

Competitiveness may be 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 there will always be winners and losers, but it is important to recognise 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 to a dynamic long-range qualitative conversion phenomenon.

Since regions are more sensitive to comparative advantages and competitive

strategies of various players, they 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 region 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 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 inter-regional 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 has also 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.

The efficiency-equity dilemma has generated a world-wide debate 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. 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.

The empirical facts on convergence are not conclusive. There are several empirical 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 to an approx. a factor 6.

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 and cities (see also Nijkamp and Poot, 1998).

Scientists with an optimistic perspective on globalization (usually economists) have pointed out 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 from countries being able to exploit comparative advantage, but the efficiency gains from economic integration may also fuel technological progress and scale economies which in certain circumstances may lead to permanently higher global growth rates.

Recently, it has also been recognized 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. Thus open economies have a fair chance to be on a converging pace.

In addition, an increased openness forces governments to carry out prudent fiscal and monetary policies and, for example, 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, and vice versa.

In contrast to growth optimism, 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 quoted problems is globalization-induced structural change. Globalization may have accelerated the sectoral composition of the economy in a way which has led to large adjustment costs both for capital and labour. In the developed economies these have often taken the form of a decline in manufacturing. This process is commonly referred to as deindustrialization or hollowization. Not only are resources withdrawn from declining industries, but they are increasingly taken abroad 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 such as real estate agents or travel agents.

Moreover, the speed of change is faster than ever before which has 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 led to 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 led to growing income inequality, despite the national welfare gains.

Another strand of literature warns 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. An 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.

Finally, globalization has also contributed to the growing severity of global environmental problems as the increasing global output, trade, mobility and real incomes have led to unsustainable exploitation of natural resources such as tropical forests, the accelerated emission of greenhouse gases and the irreversible damage to the ecosystem.

The strategic question now is 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. 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 Creek 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).

It seems that world-wide there is a tendency that ‘clubs’ of regions are emerging, so that a convergence 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 cannot as yet be easily and precisely mapped out, there is no doubt 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 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 (cf. also Masser et al., 1992).

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.

3. Regional Diagnoses and Remedies

The awareness of the 'regional problem' - in some form or another - has created an avalanche of literature on causes and remedies. It was soon recognized that - if the convergence trajectory would not 'automatically' be followed from a neo-classical perspective - an active policy intervention might be necessary. A major question then was whether this 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.

The influence of public policy on the society and the regional and national economy has drastically increased since 1945. As a result government expenditures have significantly risen (absolutely and relatively), while also much 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.

In the 1980s 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 (cf. Kamann and Nijkamp, 1991). 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 a good management 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.

Despite a lack of overwhelming success, there are several standard reasons for governments to intervene in the market. They are well documented in the literature and will only briefly be summarised here.

First, there is the 'infant industry' and 'infant region' argument. Here, it can be argued that in an initial stage of industrial or regional development the economic basis of a sector or region is too weak to be competitive and to survive, and therefore economic actors should be protected temporarily. In practice however, it appears that these measures are very hard to abolish, while these may lead to inefficiency and a Pareto-suboptimal allocation. Therefore, there is nowadays more a trend to establish an attractive general business climate, while - at least in Europe - protection also is decreased by European legislation. Another argument is that in recent decades the accessibility of peripheral regions has increased substantially by constructing new infrastructure which reduces the validity of the 'infant region' argument.

Nevertheless, in case of structural peripherality a system of special Economic Zones may be envisaged, but it remains to be seen whether firms attracted to a few selective Special Economic Zones will remain there, after the privileges (e.g., tax exemption) will be abandoned.

Second, market failures may occur because a market system does not always result in a Pareto-optimal allocation. The aim of government intervention is then to remedy this sub-optimal allocation and in this way to move towards the theoretically optimal situation of perfect competition. There are several causes of such market failures.

- imperfect competition; infrastructure is an example of this situation, because it is in most cases not efficient to operate two links on the same corridor. Also the special network character of infrastructure causes imperfect competition: one given link may contribute to the profitability of other links, and therefore an unprofitable link may be profitable when the impact on the total network is taken into account. Often however, there is competition with other transport modes (while for highways also a high quality underlying road network is available), which reduces the importance of this argument.
- imperfect information; this seems (besides telematics systems) to be of lesser importance in the case of infrastructure but, in general, less developed and peripheral areas appear to have less access to strategic market information. Thus, improvement of telecommunication services to remote areas seems to be a condition sine qua non for regional development policy.
- absence of markets; governments intervene in transport to eliminate negative externalities or to generate positive externalities as discussed above. In environmental and transport policy however, there is a trend to cope with negative externalities in a more market based way, e.g., by increasing fuel costs and introducing tolls or road-pricing systems. Such measures might also be carried out by private instead of public companies however, since there is in principle a direct user charge for the operator of the infrastructure.

Finally, there is the ethics and justice argument; an obvious example is the provision of non-profitable public transport to isolated places, because the government wants to provide a minimum mobility level for everyone at reasonable costs. In this context, there is world-wide again a clear trend towards a market based provision, e.g., by using franchising contracts in order to link social policies to efficiency incentives.

4. **The Critical Role of Infrastructure**

The main aim of regional policy is to improve the regional production structure and the regional production environment ('milieu') so as to upgrade the regional performance (by making the region more competitive). The market position and the competitive position of a regional are a result of the ratio of relative output prices vis-a-vis relative factor prices. By improving regional infrastructure this ratio may become more favourable, so that the relative strength of the region is increased and more activities are attracted towards the region. This means that infrastructure conditions have especially an impact via **dynamic reallocation effects** (see also the Williamson (1975) hypothesis).

In recent years a clear increase in the interest in infrastructure as an engine behind economic development can be observed (Nijkamp, 1993, 1995). The reasons for the new focus on infrastructure are manifold, but at least four motives of paramount importance can be identified.

First, there is the recognition that the process of economic and technological restructuring will be hampered, if the design and implementation of new infrastructure will not keep pace with the needs of a growing economy. There is a growing fear that 'missing links' or even 'missing networks' will have a negative influence on the competitive position of Europe (cf. Nijkamp et al., 1994).

In the second place, the emergence and implementation of new transport, communication and information infrastructure has to be mentioned. Especially telematics offers an enormous potential, but it is not yet fully utilized (mainly because of problems of compatibility and org ware).

Next, there is the growing awareness that the European integration will increasingly move toward a network economy in which the nodes (i.e., metropolitan areas) will play a key role in a European spatial interaction system, where interactions (material and non-material) will take place along main corridors (cf. Bithas and Nijkamp, 1997).

And finally, in many countries a new emphasis on infrastructure investments can be observed because of the presupposed causal link between these investments and their employment generating potential. In the latter framework infrastructure becomes an

instrument for socio-economic purposes. This renewed interest becomes once more manifest because of the significant reduction in public expenditures in infrastructure construction and maintenance.

Despite the commonly accepted positive role of infrastructure in regional development processes, it ought to be recognized that the empirical evidence is not always unambiguous. This is partly caused by the lack of measurable, generally accepted indicators (e.g., how do we measure regional development, or how do we define in operational terms infrastructure). Seen from an **infrastructural** perspective, it is noteworthy that infrastructure is not a single commodity, but rather a portfolio of functional services offered to the region. The nature of these services and their impact depends largely on the absorption capacity of the region and on the needs composition of the region concerned. This makes a clear-cut empirical proof rather problematic. Furthermore, there are significant differences in terms of the time span of infrastructure investments (see for details also Rietveld and Nijkamp 1993).

It should also be added that infrastructure does not only have a function as a material, physical basis for enhancing regional welfare. It is increasingly recognized that infrastructure has also a role as a contributor to international knowledge transfer, to access to innovative activities elsewhere and to R&D in other regions. This innovative capacity of infrastructure has been convincingly demonstrated in recent studies by Suarez-Villa (1993, 1996). His basic argument rests on the remarkable association between education infrastructure construction (interpreted in a broad sense) and corporate innovative capacity. It seems plausible that the connecting function of infrastructure as a network capital is also playing a crucial role in the spatial pattern of foreign direct investments.

Clearly, it has to be admitted that the interest in transport infrastructure also shows a cyclical pattern, and some authors argue even that transport infrastructure is exhibiting a megacycle. For instance, Andersson and Stromquist (1988) claim that historically major transitions in the European economic system were always accompanied (or even induced) by major changes in transport and communications infrastructures. These authors distinguish even four main transport and logistic revolutions in the history of

Western Europe, each of them characterized by the emergence, adoption and implementation of a new basic type of infrastructure.

Insufficiently functioning infrastructure means missing economic development and as a result a loss of economic potential. On the other hand, reliable and modern transport and communication systems provide a stimulus for economic development. Bottlenecks in these systems in the form of either missing links or missing networks - be it unimodal or multimodal - cause economic inefficiencies. It is therefore no surprise that a very large share of the European Fund for Regional Development is spent on infrastructure; it is expected that such investments would upgrade regional economics in backward areas.

There is no doubt that attempts at improving the physical network infrastructure (such as rail-, motor-, air-, and waterway or telecommunication networks) are not sufficient to overcome the - sometimes much more dividing - non-physical barriers between countries and regions such as language or cultural barriers based on tradition or historical heritage. In particular, the unification of Germany and the recent opening of the borders to eastern Europe have demonstrated that bridging these non-physical gaps may take much longer than the re-integration of transport and communication networks, even though this alone may require decades. Thus there is apparently a tension field between potentiality and bottlenecks in the European restructuring process (cf. also Nijkamp and Van Geenhuizen, 1997; Button and Nijkamp, 1997).

Clearly, a European construction of a network economy does not materialize automatically, but requires dedicated efforts from both the public and the private sector. Substantial capital investment is required to construct a high quality network and difficult decisions have to be made if the European dimension is considered as important as the national concerns. Traditionally, most transport infrastructure investment has been carried out by national governments in the public sector, and it is only in the communications sector that the possibility of private capital has been explored. New European agencies (e.g. EBRD and EIB) have been set up to adjudicate on new investments, and possibilities are also being considered of joint venture projects between the private and the public sector. In the operations of transport and communications markets, many European

countries have had different traditions, some based on strong central intervention and others allowing much greater market freedom.

As mentioned above, in the context of regulatory policy on networks the role of governments is of utmost importance. Most decisions on European networks are taken by national governments through well established procedures. As transnational European networks evolve, many decisions will have to be taken by international agencies. This requires that new institutional, organisational and legal frameworks be established. The roles of the different political, legal, financial and planning agencies will have to be resolved, together with an understanding of how decisions are taken.

The question is, however, whether new infrastructures lead to significant effects at the regional level. This is the subject matter of infrastructure impact analysis. Infrastructure impact analysis is a specific form of spatial impact analysis (cf. Nijkamp and Blaas, 1994) and serves to assess the foreseeable effects (in the ex ante case) or the realized effects (in the ex post case) of investments in infrastructure. Various methods have been designed and used in the context of infrastructure impact analysis.

Input-output analysis is one of the conventional techniques used to estimate the direct and indirect employment effects of infrastructure investments. It turns out that especially the assessment of programme effects is usually problematic. The estimation of the size of spillover effects of infrastructure investments has always been a focal point of attention in regional, development and transportation economics. Especially in regional economic development theories, transport infrastructure has always played a prominent role, mainly because of the potential of such infrastructure for generating new growth impulses.

Beside input-output analysis and regional development theory, also location theories have often focused attention on the role of infrastructure, by providing a micro-economic foundation for the behaviour of firms in view of accessibility conditions. These theories were normally based on the view that accessible locations brought about cost advantages to individual firms (mainly savings in transport costs), so that infrastructure is one of the decision parameters of the firm.

Some of these micro-based considerations have also been translated into a macro-based framework, for instance, by Tinbergen (1957) who tried to investigate the programme effects of infrastructural investments. In the model developed by Tinbergen a major role is played by the improvement of infrastructure as a key factor for the improvement of market positions of firms. This model can briefly be described as follows. The demand for goods is dependent on the income generated by its production. It is evident that improvements in infrastructure lead to a reduction in transport costs of the commodities produced by the firms concerned. As a result, a shift in the relative prices of these commodities will take place generating a multiplier effect, because the shift in demand towards cheaper goods leads to a rise in discretionary income. This extra spending capacity will then lead to a rise in demand for new goods, which generates in turn additional employment, etc.

According to Tinbergen, the multiplier effects of such programmes are higher than the direct and indirect employment effects of infrastructure. Clearly, some remarks concerning this model are in order. For instance, the model neglects the fact that consumers might save their extra discretionary income (rather than spending it), while also the possibility that firms (especially in a non-competitive market) might take a higher profit margin (rather than reducing the commodity prices) is assumed away. Furthermore, the favourable results may be reduced by the phenomenon of leakage effects in international (or interregional) trade. Nevertheless, this approach is interesting and valuable, as it calls attention for higher-order effects that may emerge in other sectors than the transport sector and its directly related sectors.

Although infrastructure investments are of critical importance for regional development, they are by no means sufficient conditions for generating regional development effects. In this context various caveats (see Nijkamp and Blaas, 1994) have to be mentioned.

- The effects of new elements of infrastructures on regional development differ more as these elements are more unique.
- The effects are higher as a clear regional potential is more present; otherwise, even negative effects may result.

- The effects are co-determined by the size of the infrastructure project concerned.
- The effects are higher as the design of new infrastructure is oriented towards the generation of synergetic effects with existing infrastructure (an 'infrastructure complex').
- The effects are higher as a given region is improving its infrastructure significantly more than other regions.
- The effects are also dependent on the overall economic situation.
- The effects are more favourable as infrastructure policy and technology policy are coordinated.
- The effects of new infrastructure are also dependent on the development phase of a region.
- The effects of most large-scale infrastructure investments are usually irreversible, so that such decisions are to be based on a risk strategy.
- Finally, significant positive effects of new infrastructure can never be guaranteed, as infrastructure is only a necessary - and not a sufficient - condition for regional economic development.

The previous remarks illustrate that a simple measurement scheme for assessing the impacts of infrastructure policy on regional development is far from easy. However, a policy based on synergetic effects via an 'infrastructure complex' strategy is likely to generate the highest benefits.

infrastructure development.

5. Regional Development Strategies

Regional development strategies are of a multi-faceted nature. There is not a single and simple recipe. We will discuss here three strategic levels for enhancing regional competitiveness, viz. the economic geography, the industrial development and the micro (firm) behaviour (Van Geenhuizen and Nijkamp, 1998).

5.1 Economic geography

In the history of regional 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.

In the recent past, 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). For the Central European case, in the past a so-called 'boomerang area' (connecting Northern Poland and Warsaw with Prague and Budapest in a boomerang shape) has been proposed, but it seems more logical to think of a 'golden triangle' in which also Berlin, Dresden and Leipzig might be included in this Central European development zone. 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 (cf. Hall, 1993).

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.

5.2 Industrial development

In more recent years, much attention has 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. 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., Lego in Billund or the Swatch industry in the 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 to policies based on the indigenous strength of the region, 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 (see also Section 6).

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.

5.3 Micro (firm) behaviour

Regional development is often a matter of small and medium-sized enterprises (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. This would mean that regional policy would have to address both SME's and multinational activities.

The response of successful companies to the challenge in regional policy may be diverse:

- an increasing emphasis on scaling up by fusion and take-overs (e.g., in the financial sector);
- an aggressive market penetration (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 competitive position (car industry, chemical sector).

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. This is the subject of the next section.

6. Foreign Direct Investment

Foreign direct investment may be defined as the transfer by a firm of capital (and other resources) into a foreign business venture, aimed at acquiring control of the venture (see also Van Geenhuizen, 1998). FDI may take the form of a joint venture, acquisition and establishment of an entirely new venture (greenfield investment). We will address here in particular FDI in Central and Eastern Europe, as this is the most dominant form of

regional development stimuli in this area. In fact, FDI in Central and Eastern Europe tends to take most often the form of a joint venture, either with a domestic company or with an acquisition of such a company (about 50%). This pattern reflects a certain risk-avoiding behaviour.

FDI can be measured in different ways, with slightly different underlying conceptualizations. Accordingly, countries make different statistics available, such as based on the cumulative foreign component of foreign investment enterprises and the cumulative balance-of-payments FDI inflows.

Many lagging regions see nowadays a great potential in the attraction of foreign capital to their area. This may undoubtedly generate various benefits to the region, but it has also various potential disadvantages. FDI's are sometimes exhibiting unpredictable fluctuations due to changes in foreign exchange rates, trade patterns (imports and exports) and country-specific conditions. Furthermore, several economists claim that a close link exists between the relative market size in a country, the relative wealth in a host country or the relative labour costs. And finally, the behaviour of foreign multi-national corporations seeking to avoid uncertainty is a source of fluctuating FDI patterns, especially in case of changes in trade barriers. FDI's are often seen as promising new economic opportunities in lagging regions, and sometimes even regarded as 'manna from heaven'. The actual achievements of regional development goals are thus far not excessively high and some caveats are in order here. In addition, the empirical evidence in terms of cross-national or cross-regional comparative studies is very fragmented and does not offer a simple and promising picture.

Despite a whole range of location-specific advantages, particularly cost advantages, empirical research has pointed to access to consumer markets as the prime motivation for FDI and Central and Eastern Europe in the early 1990's. It needs to be realized that market-related motivation is connected with two different corporate strategies with different outcomes for local economic development and integration of the host country. One is capturing an additional new market in Central and Eastern Europe by investing in domestic industry, and the other is crowding out or transforming domestic industries in order to prevent them to compete in Western European markets.

Despite above advantages, there are many barriers to FDI as apparent from actual and potential investors in Central and Eastern Europe. These barriers can be classified into nine categories. The actual combination of barriers is of course different for each country and for each investment project:

- **Political risks.** These include major shifts in power and potential refusal to acknowledge former administration's decisions, and rapid shifts of key persons in negotiations, all leading to uncertainty and delay.
- **Legal risks.** There is often no solid legal system based on a free market economy. This situation enables sudden (unexpected) modifications in rules and laws, and their interpretation. Legal risks are concerned with property rights, validity of legal contracts, taxes, etc.
- **Monetary risks.** These follow from the lack of Western currency, while the domestic currency sometimes suffers from (hyper)inflation. As previously discussed this situation does not apply to countries with reform based on rules from the World Bank and the International Monetary Fund.
- **Barriers in the labour market.** These include, for example, shortage of qualified staff, mostly in management, information technology, and marketing.
- **Socio-cultural barriers.** These include not only different languages and cultural values, but also different 'ways of thinking and doing things'. Further, there is often a lack of transparency of legal and fiscal systems (procedures) for outsiders, leading to time-consuming action in order to obtain specific approvals and detailed insights.
- **Information barriers.** These barriers are mostly concerned with finding suitable business partners. There is also a shortage of planning data including data on the consumer market in Central and Eastern Europe.
- **Safety barriers.** These are concerned with activities of maffra-like groups affecting established companies in particular cities and transports crossing particular regions.
- **Barriers in infrastructure.** This concerns the poor quality level of information and telecommunication infrastructures. Underlying problems are unreliable electricity supply and poor networks within and between cities. Further barriers are concerned

with the road system, such as small capacity, poor level of maintenance, missing links, and congestion at border crossings.

- **Barriers in distribution and logistics.** These barriers are related with the previous ones, but there is also a strong **organizational** component involved, particularly regarding efficiency.

The above classification mirrors a combination of location-specific barriers and lack of familiarity and information. It needs to be realized that barriers may not hold equally good for small enterprises and multinational organisation, the latter being better endowed with information and resources to bear risks. In addition, it should be noted that barriers may disappear over time, such as concerning telecommunication where new infrastructure is currently under construction (Hungary and Latvia). On the other hand, new barriers may emerge when the recipient countries themselves protect some of their industries from being taken over, when they expect no benefit from the type of FDI at hand.

With more than 11 billion US\$ the stock of foreign investment is presently largest in Hungary. The Czech Republic is second, with the Russian Federation and Poland as third and fourth. FDI in Central and Eastern Europe has increased tremendously in the recent past. This holds particularly for Hungary, witness a rise of the stock of FDI of over 8000 million US\$ between 1992 and 1995. A large increase can also be observed in the Czech Republic and Poland in these years, witness an increase of over 4400 and almost 3700 US\$, respectively. Most recently, the Czech Republic is 'running up' with an equally large increase of stock as Hungary over 1994 and 1995. It can be concluded that FDI in Central and Eastern Europe is heavily concentrated in countries bordering the EU, Hungary, the Czech Republic and Poland account for 65% of all FDI stock. This strong concentration is underlined by the per capita distribution, albeit that Slovenia and Estonia join Hungary and the Czech Republic in the top, whereas Poland and the Russian Federation are behind.

The above spatial concentration of FDI seems to reflect the factor of familiarity (information), connected with cultural ties based upon geographical proximity. It also

reflects the influence of geographical proximity in itself. However, the pattern does not conform access to markets as the major motive for FDI, because the home market of two of the four major recipient countries – Hungary and the Czech Republic – is rather small. This indicates that other factors are at play. One such factor is the privatisation process. Many countries permit foreign participation in this process under certain restrictions, but countries like Hungary and Estonia have made it the corner-stone of their privatisation strategies. Further, agglomeration effects may have played a role. Such effects are based on the sharing of supporting facilities, infrastructure and pool of skilled labour provided by an existing cluster of foreign firms, and the concomitant lower entry costs for new projects. This would suggest that FDI in particular locations (often the capital city) in a country may rise quickly once a certain threshold of agglomeration has been surpassed.

As previously indicated, foreign investment is also unequally spread over the various regions within transitional economies. Large urban centres with international airports, modern telecommunication facilities and good living conditions, and the regions bordering Germany and Austria are most preferred. Thus, the further to the East, the less foreign capital invested. For example, the Austrian-Slovenian border zone (Hungary) and the region of Bratislava (Slovakia) attract more than proportionally FDI. A dominance of FDI in large cities and in regions near the Western borders is also evident in the Russian Federation. The largest concentration is the North West regions (St. Petersburg and Kaliningrad province), and the North region with a high innovation potential (formerly closed military towns) and large natural resources. It goes without saying that in these Central- and East-European regions still many fluctuating FDI patterns may be expected.

7. Retrospect

The scene of regional policy has shown remarkable changes in the past years. Market forces have become a respected ingredient of regional policy, but it has not led to a disappearance of regional policy. Instead, the focus has been directed much more rigorously than in the past on the essence of regional policy, viz. the creation of new seedbed conditions which would make the region more competitive. Especially three focal

points have come to the fore in recent years, viz. infrastructure, technology and the environment. This re-orientation has led to a shift in - but not to a decline of intensity of - regional policy in most European countries.

A policy trend toward devolution does by no means imply that there is no case for regional policy, but its scope has changed. A free market orientation runs the risk of increasing regional discrepancies. Without directly interfering at the sectoral or firm level, it is important to make the system of regions as competitive as possible, by providing all regions with sufficient access to national-international markets by means of transportation-communication infrastructure and information about (or incentives for) new technology. Besides, economic restructuring may incorporate various types of external costs (e.g., environmental decay, diseconomies of scale etc.) and policies should then be addressed toward enhancing environmental quality and ensuring an ecologically sustainable regional economic development. In this respect, neo-Pigovian views on economic policy are to be linked to neo-Schumpeterian views on (regional) economic evolution and neo-Vernonian views on the incubation conditions of cities and regions. It seems that regional policy will move to a stage of maturity around the turn of the century.

References

- Andersson, A. and Stromquist, The Emerging C-Society, **Transportation for the Future** (D.F. Batten and R. Thord, eds.), Springer, Berlin, 1988, pp. 33-48
- Bithas, K. and P. Nijkamp, Critical Factors for an Effective and Efficient Multi-modal Freight transport Network in Europe, **Innovation**, vol. 10, no. 3, 1997, pp. 243-258
- Button, K. and P. Nijkamp, Social Change and Sustainable Transport, **Journal of Transport Geography**, vol. 5, no. 3, 1997, pp. 215-218
- Geenhuizen, M. S. van, and P. Nijkamp, Potentials for East-West Integration, **Environment & Planning C**, 1998 (forthcoming)
- Hall, D. Impacts of Economic and Political Transition on the Transport Geography of Central and Eastern Europe, **Journal of Transport Geography**, vol. 1, no. 1, 1993, pp. 20-35
- Hirschman, A.O., **The Strategy of Economic Development**, IIASA, Yale University Press, New Haven, 1965

- Kamann, D.J. and P. Nijkamp, Technogenesis, **Technological Forecasting and Social Change**, vol. 39, 1991, pp. 35-46
- Masser, I., M. Wegener and O. Sviden, **The Geography of Europe's Future**, Belhaven, London, 1992
- Nijkamp, P. Towards a Network of Regions: The United States of Europe, **European Planning Studies** vol. 1, no. 2, 1993, pp. 149-168
- Nijkamp, P., J. Vleugel, R. Maggi and I. Masser, **Missing Transport Networks in Europe**, Avebury, Aldershot, 1994
- Nijkamp, P. (ed.), **Europe on the Move**, Avebury, Aldershot, 1995
- Nijkamp, P. and E. Blaas, **Impact Assessment and Evaluation in Transportation Planning**, Kluwer, Boston, 1994
- Nijkamp, P. J. Poot, New Perspectives on Spatial Growth, **Annals of Regional Science**, 1998 (forthcoming)
- Nijkamp, P. and M.S. van Geenhuizen, European Transport, **Journal of Transport Geography**, vol. 5, no. 1, 1997, pp. 4-11
- Nijkamp, P., Regional Economic Growth and Regional Policy; A European Perspective, Research Memorandum 1990-76, Dept. of Economics, Free University, Amsterdam 1990
- Rietveld, P. and P. Nijkamp, Transport and Regional Development, **European Transport Economics** (J. Polak and A. Heertje, eds.), Blackwell, Cambridge, 1993, pp. 130-151
- Suarez-Villa, L., The Effect of Infrastructure on Invention, **Technological Forecasting and Social Change**, vol. 44, no. 4, 1993, pp. 335-358
- Suarez-Villa, L., Innovative Capacity, Infrastructure and Regional Policy, **Infrastructure and the Complexity of Economic Development** (D.F. Batten and Ch. Karlsson, eds.), Springer-Verlag, Berlin, 1996, pp. 25 1-269
- Tinbergen, J., The Appraisal of Road Construction: Two Calculation Schemes, **The Review of Economics and Statistics**, vol. 39, no. 3, 1957, pp. 241-249
- Williamson, J.G., Regional Inequality and the Process of National Development, **Regional Policy; Readings in Theory and Applications** (J. Friedmann and W. Alonso, eds.), MIT Press, Cambridge, Mass., 1975, pp. 183-207