3 THEORIES ON ECONOMIC DEVELOPMENT IN RURAL REGIONS IN DEVELOPED COUNTRIES

3.1 Introduction

In the previous chapter we discussed main socio-economic trends and policy issues in rural regions of the EU. One finding which emerged was the mosaic-like pattern of socio-economic development expressed in leading and lagging regions since the beginning of the 1980s. In this chapter, we turn from ‘practice’ to ‘theory’ and give an overview of theories that can help to explain the economic development in rural regions in advanced countries. As indicated in the previous chapter, a rural region is described in terms of a territorial unit with one or more small or medium sized cities, whose regional economy comprises agricultural, industrial and services activities, with a relatively low population density. We restrict our study to economic developments in rural regions in advanced countries since the beginning of the 1980s. This implies that the focus is on a situation of rural restructuring, largely due to ongoing decline in agricultural employment, growing diversity of employment in the industrial and services sectors, changing commuting patterns and counterurbanization (see Section 2.3). This rural restructuring is often thought to be the outcome of the interplay of global forces and local responses, mediated through national structures. Within this context, the selection of theories on economic development in rural regions in advanced countries is based on the following criteria:

- the theories have to be comprehensive, that is, they have to focus on an economy which consists of agriculture, industries and services;
- regional economic change tends to be a dynamic process, which affects the pattern of regional economic inequalities (leading regions may become lagging regions); hence theories need to account for dynamism (Healy and Ilbery, 1990:301);
- the spatial dimension of production or the territory must be included in the premises of the theory (Bramanti and Ratti, 1997:3). In our study the spatial dimension must be applicable to a rural region;
- theories have to take account of the specific attributes of rural regions, in particular the low density of actors and economic activities, which hampers agglomeration economies.

To provide an overview of theories on economic development in rural regions would be an easy task if rural economics was an independent discipline. As such a discipline does not exist, we have to look at other disciplines that deal with economic development in rural regions. Regional economics and the multidisciplinary field of rural studies offer the best prospects as the former focuses on regional economic development and the latter concerns rural development. Within regional economics, we have to take into account whether theories apply to both rural and urban regions, or whether they are restricted to explaining development in either urban or rural regions. Within the field of rural studies, we tried to isolate studies on economic development. Such studies are often related to the question of the most suitable policy to implement in order to stimulate economic development in rural regions.
Organization of this chapter
The remainder of this section discusses the notions of theory and economic development. Attention is also paid to the relation between economic development and employment growth. In the next section, we turn to the debate in regional economics, and elaborate on the main theories put forward. These are classified into four main groups comprising traditional models, pure agglomeration models, local milieu models and territorial innovation models. Section 3.3 further reflects on the debate on economic development in rural regions in the multidisciplinary field of rural studies. Here three main groups of theories are distinguished: the exogenous development approach, the endogenous development approach and the mixed exogenous/endogenous development approach. From the analysis of both debates, ten theories on economic development in rural regions are selected for further research in this study. These theories are discussed in more detail in Section 3.4. In the last section of this chapter, some concluding remarks are made.

The notion of theory
Theories figure prominently in science. On the one hand, they are the result of research; on the other hand, they give direction and inspiration for further research (Swanborn, 1993:97). Our review of existing theories on economic development in rural regions can be seen as an example of the second case. The importance of theories justifies an explanation of the notion of theory. We begin with the hypothesis, which is commonly used for solving problems in a scientific way. A hypothesis is basically an answer to a problem and always expresses a relationship between events in a form like: if X then Y (Abler et al., 1972:31-2). If a hypothesis has been tested and confirmed as being valid, Abler et al. (1972:40) label such a hypothesis as ‘law’. They describe theories as ‘structures composed of laws and the rules by which those laws are put together’ or more concisely as ‘systems of laws’ (1972:42-3). Swanborn (1993:98) gives a rather similar description of a theory: a collection of coherent statements of different levels of generality, of which some can directly be tested. In science, models are also often used: these can be referred to as an abstraction of a theory, which is stripped of its empirical content but which maintains the same structure (Abler et al., 1972:45). So a model is a simplification and abstraction of existing relationships between experiences. In social sciences normative models are important, i.e. models in which a standard or idealization of a particular relationship is used as a norm against which we measure our experiences. A famous normative model is that of homo economicus (Abler et al., 1972:46).

Both Abler et al. (1972:47-8) and Swanborn (1993:43) admit that hypotheses, theories and models are often used as synonyms and that in reality the scientific process is messier than the abstract description given above. In this study, we will use the term ‘theory’ in the sense of ‘a system of (confirmed) hypotheses’. However, we also follow common practice, e.g. when a certain theory is referred to as a model (like the creative destruction model) or as an approach (like the mixed exogenous/endogenous approach).

The notion of economic development
A second notion which deserves explanation is economic development. In a narrow sense, the concept of economic development can be seen as a rise in per capita income, accompanied by a qualitative change in the production structure (Szirmai, 1994:7). This change usually refers to an increase in the share of the industrial and services sectors in
the gross domestic product (GDP) and a decrease in the share of the agricultural sector. In a broader concept of economic development, social indicators, like life expectancy, literacy, education level, income distribution, infant mortality, daily calorie intake, the number of hospital beds, doctors and telephones, rationality, planning, an efficient institutional structure, democracy etc. are added to the narrow concept (Szirmai, 1994:7-9). In fact, three principal dimensions can be identified in the broader concept: an economic dimension expressed as economic growth, a socio-cultural dimension reflecting cultural needs and community identity, and a political dimension referring to political decision-making and the involvement of groups of individuals in the policy process (Moulaert and Sekia, 1999:10). In the theories discussed in this chapter, both the broad and narrow concepts of development are referred to. It has to be noted that ‘development’ is often associated with a positive change or an increase. However, development can also be negative, i.e. a decline in income or a deterioration of a social indicator. In this study the concept of development encompasses both positive and negative changes.

**Relation between economic and employment development**

Economic growth, be it expressed as a rise in output (GDP), a rise in GDP per capita or a rise in output per worker (Armstrong and Taylor, 2000:66), plays an important role in both concepts of economic development. However, as discussed in Section 2.4, rural development policy is not only concerned with an increase in GDP/capita but with providing employment opportunities as well. The relation between output growth and employment growth in a region can be explained by using a simple diagram of the interaction between a region’s product market and its labour market (Fig. 3.1). The figure shows that employment growth depends on the growth of a region’s output, which is itself determined by the competitiveness of its firms, i.e. the ability of firms to produce a certain share to meet the region’s own demand and the demand from other regions. The figure also demonstrates how a number of other issues are related with the competitiveness of a region’s firms. Changes in one or more of these issues affect employment growth, as indicated by the linkages depicted in the figure. Of course, it can be said that this model is too simple because the competitiveness of firms is only determined by labour costs, and factors like economies of scale, transaction costs and network relations are fully ignored. Nevertheless, the model clearly reveals the basic relationship between output growth and employment growth, and it can easily be expanded to include other factors.

### 3.2 Debate in regional economics

In this section we will identify theories on economic development in rural regions by examining the debate on regional economics. The theories put forward in this debate cover both abstract spatial-economic models based on neoclassical assumptions and institutional perspectives on regional economic development, in which regions are embedded in a complex web of social, cultural, political and historical factors (Boekema et al., 2000:461). Apart from economists, economic geographers are also involved in this debate. Since theories put forward in this debate all focus on explaining growth of a region’s output, it is worthwhile to pay some more attention to Fig. 3.1, notwithstanding
its simplicity. By linking output growth with the competitiveness of a region’s industries, the figure suggests that competitiveness is at the core of the economic development process. This competitiveness can be assumed to refer to regional firms and the ‘production circumstances’ under which they operate, i.e. all kinds of assumptions related to the behaviour of firms. From this interpretation, it appears that firms and their ability to adapt to changes are decisive for realizing economic growth (Lambooy et al., 1997:73). Fig. 3.1 also illustrates that regions are embedded in interregional interdependencies through the linkage of demand for the region’s export, suggesting that regional economic development depends on ‘the ability of each region to produce with a comparative advantage the goods and services that are demanded by the national and international system of which they form a part’ (Camagni, 1992:1). In the development process, some regions may experience a more favourable development than others, since competitive economic struggles ‘cannot have winners without also having losers, although the absolute level of regional development may rise over a long historical period’ (Healy and Ilbery, 1990:298).

Regional economic growth theories conceptualize the competitiveness of a region’s industries in different ways. For example, in neoclassical theories competitiveness of firms is derived from the availability of labour and capital, whereas in Porter’s theory on the competitive advantage of nations a wide range of additional factors play a role like trust, values, norms, networks and innovation. When we express the relation between the
Figure 3.2 Classification of theories on regional economic growth

<table>
<thead>
<tr>
<th>Production function $^a$</th>
<th>Theories</th>
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<tbody>
<tr>
<td>Traditional models $Y = f(L, K)$</td>
<td>Neoclassical growth theory</td>
</tr>
<tr>
<td>Pure agglomeration models $Y = f(AE, L, K)$</td>
<td>Cumulative causation theories</td>
</tr>
<tr>
<td>Local milieu models $Y = f(LM, L, K)$</td>
<td>Endogenous growth models</td>
</tr>
<tr>
<td>Territorial innovation models $Y = f(I, LM, L, K)$</td>
<td>Incubator theories</td>
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$^a$ $Y$: income or output; $L$: labour; $K$: capital; $AE$: agglomeration effects, due to external effects or scale economies; $LM$: local milieu, which includes factors like space, human capital, technology, networks, trust, culture and policies; $I$: innovation.

Competitiveness of firms and output in terms of a production function as $Y = f(X, W, Z)$, then we can divide regional economic growth theories into four main groups, depending on the factors in the production function: traditional models, pure agglomeration models, local milieu models and territorial innovation models (Fig. 3.2). The sequence of these models is such that the factors in the production function increase in complexity. Besides, the models reflect a certain degree of chronological sequence: the traditional models were prevalent in the 1950s, the pure agglomeration models in the 1960s, the local milieu models in the 1970s, and the territorial innovation models have dominated since the 1980s. Of course, other classifications of regional economic growth theories can be made, for example, according to traditional and modern theories, according to theories that stress the demand or supply side or according to different schools of economic thought. The four distinguished groups in this study are briefly discussed in Sections 3.2.1-3.2.4, without considering their applicability to rural regions. That question is addressed in Section 3.2.5.

### 3.2.1 Traditional models

In the first group of regional economic growth theories - here labelled as traditional models - output is assumed to be a function of the input of labour and capital. Main exponents in this group are the neoclassical growth theory and the export base theory.

*Neoclassical growth theory*

In the neoclassical growth theory, the evolution of regional disparities depends on the availability and the interregional mobility of the production factors of capital and labour. Flexible prices and wages on regional markets guarantee the full utilization of regional resources. Given identical production functions, capital tends to move to regions where
labour is abundant and cheap while labour will move in the opposite direction. These flows continue until returns to capital and wages for labour are equal in each region. Ultimately, per capita incomes will converge.

Objections to the neoclassical growth theory are manifold. The mobility of both labour and capital is restricted by various factors. For example, labour mobility is not only determined by income gains, but it is also dependent on spatial frictions, mobility costs, non-economic resistance to migration, and family ties. Although capital mobility is much higher than that of labour, it is often restricted by the lumpy character of investments, which often are made in large units, and by industrial inertia, implying that once firms have settled in a location, the advantages of staying there are larger than those of moving. Other objections refer to the neglect of transport costs, trade barriers and differences in technological development among regional economies.

Export base theory
The export base theory divides economic activities into basic activities for export and non-basic activities for internal consumption. This theory is driven by demand factors in contrast to the supply driven theory in the previous paragraphs. According to the export base theory, regional economic change depends on the proportion of the economic activities in a region that produce goods or services for export. Growth in the basic activities enlarges the flows of money into the region, increases the demand for goods and services within it, and causes a corresponding increase in the volume of non-basic activities. The size of this multiplier effect depends on the amount of money that is spent in the region.

Shortcomings of this theory are, for example, the fact that the rise in purchasing power through exports is not necessarily a catalyst of growth: import substitution may also stimulate growth by increasing the regional purchasing power through the prevention of the outflow of currency. Furthermore, the size of the region matters: smaller regions have by nature more sizeable exports than larger regions, which makes the division of basic and non-basic activities rather arbitrary. Other objections pertain to ignorance about changes in the natural resource base caused by exhaustion or discovery of new resources and disregarding the fact that government expenditures such as social security may increase regional purchasing power.

3.2.2 Pure agglomeration models

In the second distinguished group of regional economic growth theories - the pure agglomeration models - output depends on the availability of capital and labour and external effects or scale economies, which may arise due to a concentration of labour and capital in a specific location. We briefly introduce here two exponents of pure agglomeration models: growth pole theories and cumulative causation theories.

Theories of growth poles
In the 1950s, Perroux laid the foundations of these theories. The basic idea in the growth pole theories is the existence of a leading or propulsive firm, which acts as a growth pole
and stimulates other industries and businesses through multiplier effects. Leading industries are characterized by their newness, high technology and strong linkages with other sectors, while propulsive industries can be seen as relatively large firms, belonging to a growth sector and having a high ability to innovate and to generate growth. Growth pole theories are discussed in more detail in Section 3.4.1.

**Cumulative causation theories**

The main idea behind cumulative causation theories is that once regional disparities come into existence, a self-reinforcing process starts that, in the absence of catastrophic events, maintains the status of growing areas. Contrary to the convergence trend in the neoclassical theories, here divergence among regions is the expected result. An agglomeration of economic activities and people induces further rounds of expansion in the wealthy regions, whereas lagging regions are confronted with a negative spiral of declining economic activities and outmigration. The most well-known exponent of these theories is the Swedish Nobel prize winner Gunnar Myrdal. His theory is discussed in more detail in Section 3.4.3.

### 3.2.3 Local milieu models

In the theories governing local milieu models, various factors in the local milieu, such as skills of the labour force, technical and organizational know-how, and social and institutional structures, affect the revenues from the input of capital and labour. A distinction can be made between endogenous growth models and theories based on changes in the organization of labour. The inclusion of technological progress in the production function constitutes one main difference from the neoclassical growth theories, where technological progress is supposed to be exogenous, falling like ‘manna from heaven’. In the so-called endogenous growth theories, the rate of technical progress is embodied in production factors such as ‘learning by doing’ or regarded as a ‘specific growth factor’, which raises the total productivity of the other production factors (Boltho and Holtham, 1992:8-9). This specific growth factor may consist of human capital, a stock of knowledge from R&D or public infrastructure. In contrast to the convergence tendency among regions in the neoclassical growth theories, endogenous growth theories assume divergence as a result of differences in the level of technology.

**Endogenous growth models**

The endogenous growth models usually refer to agglomerated but non-metropolitan areas with small and medium sized firms. These local economies tend to be characterized by entrepreneurship, production flexibility, district economies, and some collective agents, which act as a catalyst in the development process. There are many applications, for example, industrial districts models. An industrial district can be seen as ‘a local thickness of inter-industrial relations which is durable in time and forms an inextricable network of positive and negative externalities (and) historical-cultural inheritances’ (Becattini (1987), quoted in Iacoponi et al., 1995:34-5). In this system, an agglomeration of small and medium sized firms exchanges semi-finished products, which can be described as a collective production process. In this process transaction costs are very low. Technology employed in each firm is very similar and well known to everyone
because of the local technological atmosphere. Hence, information costs are also very low. Relations between firms and persons in the local system are not only established by national regulations, but to a large extent by local regulations, rules and customs which have their roots in local historical culture (Iacoponi et al., 1995:34).

Theories based on changes in the organization of labour
The starting point in the theories based on changes in the organization of labour is that the composition of the labour force in terms of skills, costs, mobility, number etc. varies between regions. These differences in the labour force may affect the location decision of firms. Here the theory on the spatial division of labour and regulationist theories are discussed.

The theory on the spatial division of labour assumes that spatial inequality is both produced and used by firms in their search for favourable conditions for profitable production, and that there are rounds of investment and disinvestment. Investment is attracted to areas where there are profitable opportunities, and disinvestment occurs in areas where profitable opportunities are exhausted. The pattern of geographical differentiation is continuously transformed by new investment or disinvestment rounds. In these theories, the development of a particular region results from the interaction of external factors (the national and international context) and local actors (available material resources and factors of production, industrial structure and social composition of the area).

Regulationist theories suggest that capitalist economies develop through a series of regimes of accumulation: the way in which labour is organized and controlled in the production process like Fordism and post-Fordism. The transition periods from one regime to another are of critical importance as these are accompanied by a decline of the industrialized regions of the previous regime and the emergence of newly industrialized regions under the next regime. According to the proponents of this approach, capitalist economies have been in a transition phase between Fordism and post-Fordism since the mid-1970s.

The points of contention in regulationist theories tend to revolve around questions whether different regimes have replaced each other or whether they coexist, and whether different regimes are associated with different spatial economic patterns.

3.2.4 Territorial innovation models

The theories governing territorial innovation models mainly differ from those of the local milieu models in the sense that the former assume that – apart from labour, capital and local milieu factors - the diffusion of innovations is also an important engine behind growth. Innovation has to be understood in a broad sense: it includes product, process and organizational innovation in the firm as well as social and institutional innovation at the level of an industry, region and nation (Morgan, 1997:492). The emphasis on innovation implies that technological ability to adapt to innovations is considered to be crucial for new types of production and entry into new markets. Consequently, ‘the
development of the local economy depends on its capacity to transfer its resources from old activities to new ones, notably by mastering new product technologies’ (Molle and Cappelin, 1988:7). Various theories fall within this group, such as incubator theories, product life cycle theories, innovative milieux, Porter’s theory on the competitive advantage of nations, and Storper’s theory on the region as a nexus of untraded interdependencies.

**Incubator theories**

Incubator theories emphasize the tendency of R&D and innovation activities to move towards areas with a concentration of people and activities. Such areas can benefit from external economies, spin-off effects of a skilled labour force, and organizational and technological know-how, which create a fertile environment for R&D investments and innovations. In this context, Jane Jacobs has put forward the term ‘urbanization economies’ to denote the benefits which firms involved in different activities and sectors can derive from concentration. Together with the emphasis on innovation as a driving force behind economic growth, the implication of the incubator theories is that present economic core areas tend also to be the core areas of tomorrow. As such, core regions seem to be characterized by continuity.

The incubator theories focus on the origin of innovations, which may afterwards be diffused to other regions as well. One main difference between incubator theories and the cumulative causation theories is that growth does not necessarily result in a polarization between wealthy and lagging regions.

**Product life cycle theory**

The product life cycle theory builds upon the incubator theories. The product life cycle can be divided into three stages: innovation, growth and maturity. The central idea in the product life cycle theory is that locational shifts occur in the various stages of the cycle. The innovation phase takes place in areas with a concentration of technical and scientific labour, whereas the maturity phase of the product requires areas with large amounts of low-cost labour such as peripheral regions.

Comments on this theory refer to the shortening of the product life cycle of many products that has resulted in a reduction in the time for spatial diffusion of the maturity production stage. Furthermore, the initially separate activities of innovation, production and consumption become increasingly an interactive process, favouring the concentration of the various stages of innovation, upgrading and production into one unit in the core area.

**Theory of innovative milieu**

The innovative milieu can briefly be described in terms of a local milieu of small and medium sized enterprises with specific properties, which is fed with innovation through extraterritorial networks (see Section 3.4.7 for an extensive discussion). Collective learning processes in order to adapt to technological changes are essential in innovative milieus. Hence, such milieus are also referred to as ‘learning regions’ or as ‘regional innovation systems’ (Armstrong and Taylor, 2000:299). The innovative milieu can be positioned within the global-local paradox, in which globalization and regionalization
simultaneously occur. On the one hand, there are firms, which make the different parts of their product in different parts of the world and sell their products all over the world, and on the other hand, firms which concentrate in regional clusters. These different organization forms of the so-called ‘network firms’ are studied in the scope of the ‘network approach’ (Capello, 1996) by various schools in the social sciences and organization theory. Transaction costs (costs of using the market), complementarity and trust are main items in the network approach (see also Section 2.4.3). In the scope of our discussion of regional economic growth, it can be said that networks are an important local milieu factor.

*Porter’s theory on the competitive advantage of nations*

In his theory on the competitive advantage of nations, Porter (1990) employs the ‘diamond’ to explain the determinants of national advantage. He distinguishes four main determinants, which individually and as a system, create the context in which a nation’s firms are born and compete. These four determinants refer to factor conditions, demand conditions, related and supporting industries, and firm strategy, structure and rivalry. In addition, the two determinants of chance and government complete the diamond (see Section 3.4.8 for an extensive discussion).

*Storper’s theory on the region as a nexus of untraded interdependencies*

Storper’s theory (1995) on the region as a nexus of untraded interdependencies deals with the question why some regions keep emerging as centres for new rounds of economic growth in a time of increasing ease in transportation and communication. In the theory, firms are supposed to be tied to other firms through formal exchanges (i.e. the input-output linkages) and through untraded interdependencies. These include labour markets, public institutions, and rules for action, customs, understanding and values. The untraded interdependencies can also be seen in terms of ‘regional production culture’ or ‘civic culture’, i.e. the set of virtuous connections of economic coordination, which mobilize capacities for efficient economic action. The untraded interdependencies form the public assets of the production system and they may differ among regions. All production systems are subject to uncertainty between producers, producers and labourers, and producers and consumers. These uncertainties are mainly solved through conventions, which are taken-for-granted rules and routines between the partners in different kinds of relations of uncertainties. There are different combinations of uncertainty and different conventions among regions, resulting in different ‘frameworks of economic action’ or different ‘worlds of production’. Some of these worlds of production are more competitive than others, for example, Silicon Valley. The evolution of the production system is strongly dependent on its underlying conventions. These affect the labour market, the input-output system and the knowledge system, and tend to push the production system from generality into specificity. This evolution is path dependent in the sense that it involves interdependencies between the choices made over time and that it is irreversible.
3.2.5 Regional economic growth theories and rural regions

In the preceding discussion of the four categories of regional economic growth theories, no attention was paid to the question whether the premises of the theories are compatible with the specific features of rural regions. According to our definition, rural regions are regions with a low population density and one or more small and medium sized cities, whereas urban regions have a high population density and big cities (Section 2.2). These differences in density of actors and economic activities imply that firms in urban regions are in a more favourable position to benefit from agglomeration economies than those in rural regions. Agglomeration economies arise from the presence of a large pool of labour, buyers and sellers, interfirm linkages with customers, suppliers, subcontractors and other firms, a stock of scientific and technological knowledge and linkages among this knowledge and firms (Malecki, 1991:228-31). These linkages enable the flow of innovations and information. Rural regions lack agglomeration economies, except for the cities, in which some agglomeration economies may flourish. From this point of view, urban regions are in a more favourable position than rural regions to generate economic growth. However, mainly due to congestion in urban regions, dispersion forces are also at work that may push firms and labourers out of the cities. With regard to these differences between rural and urban regions, one may question whether the same theories can be applied to explain economic development in rural and urban regions. Below this question is examined in light of the theories in the four distinguished groups.

Traditional models and rural regions
The neoclassical growth theory does not pay attention to specific regions, firms, economic sectors, distribution of population and other regional characteristics. Thus, it appears that the theory can be applied to both urban and rural regions. In the export base theory, economic growth depends on the ratio of basic and non-basic activities. As no a priori relationship between this ratio and the urban or rural character of a region can be assumed, this theory can also be applied to both types of regions.

Pure agglomeration models and rural regions
With regard to the agglomeration in urban regions, it can be said that within the cumulative causation theories urban regions tend to have the role of wealthy regions and rural regions the role of lagging regions. Growth pole theories do not make a distinction between urban and rural regions, but the effect of applying the theories is likely to generate different outcomes in rural and urban regions as it is more difficult to induce technical multipliers in rural regions.

Local milieu models and rural regions
Endogenous growth models refer to clusters or concentrations of small and medium sized firms in both urban and rural regions. Theories based on changes in the organization of labour do also not refer to urban and rural regions: the dynamism in the system arises from the pull and push of firms caused by particular local conditions.

Territorial innovation models and rural regions
It seems to be rather clear that the incubator theory is only valid for urban regions, whereas in the product life cycle theory the innovation stage is likely to occur in urban
regions and the maturity stage in rural regions. The innovative milieu focuses on a small territorial unit with a concentration of interfirm linkages, which may be located both in urban and rural regions. On the whole, the innovative milieu is not able to be at the origin of major innovations, unlike urban regions in the incubator milieu, but it has external linkages which foster acquaintance with the innovation and it has the capability to adopt the innovation in the production process. From the three theories in this group, it follows that rural regions are usually not considered to be the origin of major innovations, but that they are supposed to adopt innovations through their linkages with urban regions. And rural regions have to do so in order to survive as Camagni (1992:15) argues:

if it is clear that they cannot catch up rapidly in the production of new technologies, it is nevertheless clear that they can and must catch up rapidly in the utilisation of these technologies. They sell their products in an international market, and this market requires more sophisticated characteristics both in products (quality, design, novelty and variety) and delivery conditions (time reliability, production elasticity for peak or unexpected demand) than may be achieved through traditional technologies. A strategy of ‘blending’ the best technologies with more traditional and local organisation practices seems the most effective.

Where Porter’s and Storper’s theories are concerned, both can be applied in urban and rural regions.

From this brief examination, we can conclude that all theories discussed in this section can be used to explain economic development in rural regions, except for the incubator theory. In a number of theories like the cumulative causation theories and the product life cycle theory the role of rural regions is prescribed to a certain position in the theory, i.e. lagging regions and maturity stage of production.

3.3 Debate on economic development in rural studies

From the review of regional economic growth theories, we now move to the debate on economic development in rural regions, a debate which has generated much discussion in the multidisciplinary field of rural studies. This debate is on the one hand concerned with theories on economic growth in rural regions, and on the other hand with the question how rural development policy can stimulate economic growth in rural regions. The latter has resulted in a close interaction between ideas put forward in this debate and implemented rural development policy (see Section 2.4.3). Contributions to this debate mainly originate from rural geography, rural sociology, agricultural economy, demography, ecology, rural planning and administrative sciences (Cloke, 1985 and 1997; Huigen, 1996). In the debate, three main approaches can be distinguished:

1 The exogenous development approach
2 the endogenous development approach;
3 the mixed exogenous/endogenous development approach.
These approaches reflect more or less a chronological sequence in the conceptualization of rural development. The concepts have different implications for the strategies of local actors and for rural development policy. The three concepts are briefly discussed below.

1 The exogenous development approach
The main elements of exogenous models are that rural development is considered as being transplanted into particular regions and externally determined, that benefits of
development tend to be exported from the region, and that local values tend to be trampled on (Slee, 1994:184). Exogenous models are based upon the view that modernization results in a division of economic activities between urban and rural: urban areas become the domain of industries and services and rural areas that of agriculture. The agricultural sector performs several functions in this system: it provides food for the urban areas, it is a source of purchasing power for commodities from the industrial sector, a source of capital and labour for the industrial sector, and a source of foreign earnings to support the development process of the urban areas. Since these functions reflect a dependency of agriculture on the urban sector, the process of agricultural development and hence rural development is largely considered to be dependent on and externally determined by the urban sector.

Till the 1970s the exogenous development approach tended to be the dominant model for explaining rural development. In the European countries, it was largely reflected in a rural development policy directed towards modernization of the agricultural sector; as this proved insufficient to stabilize the rural economy, a policy to set up branch plants - derived from the growth pole theory - was also adopted, in which manufacturing firms from urban areas were encouraged to move into rural areas in order to create employment opportunities for the rural population. By the late 1970s these policies fell into disrepute since they did not result in sustainable economic development of rural regions (Lowe et al., 1995:89-91).

2 The endogenous development approach
Endogenous development is to be understood as local development, produced mainly by local impulses and grounded largely on local resources (Picchi, 1994:195). In contrast to the exogenous model, the benefits of development tend to be retained in the local economy and local values are respected (Slee, 1994:184). This approach is closely related to the local milieu models such as the endogenous growth and industrial district models, in which the institutional context of economic activities plays an important role. Two specific ‘rural’ theories within this approach have been put forward: the community-led rural development theory and Bryden’s theory on the potentials of immobile resources for creating competitive advantages in rural areas. These are more extensively discussed in Sections 3.4.4 and 3.4.5.

Where rural policies were concerned, the emphasis shifted towards rural diversification, bottom-up approach, support for local business, encouragement of local initiatives and local enterprises, and provision of suitable training (Lowe et al., 1995:91). Intensive interaction, information exchange and cooperation between local actors can be considered to be prerequisites for the success of the endogenous development model. Where these do not exist, some form of a local development agency is needed to act as a catalyst for bringing about this cooperation (Stöhr, 1990:23).

3 The mixed exogenous/endogenous development approach
This approach rejects the polarization of exogenous and endogenous development models and proposes ‘an approach of the analysis of rural development that instead stresses the interplay between local and external forces in the control of development processes’ (Lowe et al., 1995:87). This approach relates rural development to the process
of increasing globalization, mainly due to rapid changes in the information and communication technology sectors. In this changing global context, actors in rural regions are involved in both local networks and external networks, but the size, direction and intensity of networks vary among regions. Hence, in this approach rural development is considered as a complex mesh of networks in which resources are mobilized and in which the control of the process consists of an interplay between local and external forces (Lowe et al., 1995). This approach is discussed in more detail in Section 3.4.9.

Relation with the debate on regional economic growth theories

When we compare the above debate on economic development in rural studies with that in regional economics in the previous section, our first impression is that the debate on economic development in rural studies is especially concerned with the more organizational aspects of the rural economy and that the focus in the debate in regional economics tends to be more on the interplay of the production factors of capital and labour, often affected by several other factors. However, when the availability of capital and labour is implicitly assumed in the debate on economic development in rural studies, then differences between both debates become smaller. It may even be said, notwithstanding different circles of scientists and differences in terminology, that there is a certain amount of overlap between both debates (Fig. 3.3). The growth pole theory links the exogenous development approach and the pure agglomeration models whereas regional location factors provide the link between the endogenous development approach and the local milieu models. Although the concept of innovation is not explicitly mentioned in the mixed exogenous/endogenous approach, it seems to be clear that economic dynamics is derived from the interplay of local and external forces, in which among others innovation is exchanged, and consequently this approach can be related to the territorial innovation models.

3.4 Discussion of theories for further research

From the discussion of regional economic growth theories and the debate on economic development in rural studies in Sections 3.2 and 3.3, it is apparent that quite a number of theories can be used to explain economic development in rural regions. In the interest of manageability and efficiency, we have selected ten theories for further research. Seven of these theories have already briefly been discussed in the previous sections. Three other theories were identified, which are less widely known in the mainstream debates, but

![Figure 3.3 Congruence in the respective debates on economic development in rural studies and regional economics](image)
nevertheless useful for deepening our understanding of economic development in rural regions. Our selection is based on the following considerations. In the debate on economic development in rural studies, five theories were put forward and as this number is quite limited, we decided to examine them all. With regard to the selection of theories from the debate in regional economics, the choice was more complicated due to the bigger range of theories. In order to cover divergent viewpoints on economic development, it would be reasonable to cover one or two theories from each of the four distinguished groups of regional economic growth theories. However, as the theories concerning the traditional models have rather restrictive premises and as decisive production factors of labour and capital are also covered by the other three groups of theories, these were omitted. Next, regional economic growth theories were not selected from the group of the local milieu models as these theories seem to be overshadowed by the territorial innovation models, which share the same production factors, but which also consider the role of innovation, a factor that is currently viewed as one of the main engines behind economic development. From the two remaining groups of the pure agglomeration models and the territorial innovation models, we have selected five theories, which are rather distinctive in their conceptualization of economic development. The selected theories are presented in Fig. 3.4. Some of them are more firm-oriented, whereas others tend to focus on the community or the whole economy.

This section presents a detailed description of the premises and mechanisms of the ten selected theories. For this purpose, we have composed a list of questions and distinguishing characteristics, which will allow for a systematic description:
- positioning of the theory: to which discipline or school does the theory belong?
- problem orientation: which feature/question is explained by the theory?
- territorial level of analysis: to what geographical scale does the theory refer (region, community etc.)?
- notion of economic development in the theory;
- premises and mechanisms of the theory;

Figure 3.4 Classification of selected theories on economic development in rural regions

<table>
<thead>
<tr>
<th></th>
<th>Firm-oriented</th>
<th>Community-oriented</th>
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| Pure agglomeration models | - Growth pole theory
|                       | - Kilkenny’s relationship of transport costs and rural development           | - Myrdal’s cumulative causation theory             |
| Local milieu models   |                                                                              | - Community-led rural development theory          |
|                       |                                                                              | - Bryden’s theory on the potentials of immobile resources |
|                       |                                                                              | - Creative destruction model of community development |
| Territorial innovation models | - Theory of innovative milieu
|                       | - Porter’s theory on the competitive advantage of nations                   | - Mixed exogenous/endogenous approach             |
|                       |                                                                              | - Illeris’ inductive theory of regional development |
Positioning of the theory
The growth pole theory is usually credited to the French economist Perroux, who first used the concept in the 1950s. Since then, it has been elaborated by many economists and planners. In the 1960s and 1970s growth poles were popular among policy makers as a means to stimulate economic development in lagging regions. Growth pole theories have been the subject of debates in regional economics and rural studies.

Problem orientation (given the availability of capital and labour)
The basic idea in the growth pole theories is the existence of a leading or propulsive firm, which acts as a growth pole and which can stimulate other industries and businesses through multiplier effects.

Level of analysis
The territorial level refers to a growth pole, which can be said to cover the space of the production milieu of the leading or propulsive firm with its linked upstream and downstream firms. Apart from this rather strict delimitation, growth poles are often associated with regions.

Notion of economic development
Economic development refers to an increase in income and employment in the growth pole. Hence it can be said that economic development can be perceived in terms of a process of polarization: it favours particular places and industries, while other places and industries largely remain unaffected by the process of growth.

Description of premises and mechanism
In the growth pole theories, leading or propulsive firms are supposed to be like ‘spiders in the web’. Leading industries are characterized by their newness, high technology and strong linkages with other sectors, while propulsive industries can be seen as relatively large firms, belonging to a growth sector and having a high ability to innovate and to generate growth. Although these firms are often associated with basic industries such as automotive, steel and oil production, they may also refer to, for example, universities.
The multiplier or polarization effects of these leading or propulsive firms on the surrounding economy are threefold:
- technical multipliers may arise from linkages with upstream and downstream industries;
- income multipliers are expected as a result of increased employment, which induces the demand for consumer services;
- psychological effects can be at work as the establishment of a leading or propulsive firm may create an optimistic atmosphere.

These multipliers may induce a favourable regional economic environment around the leading or propulsive firm, which can be referred to as a ‘growth pole’.

**Development pattern**
The establishment of a leading or propulsive firm in a certain region may stimulate the surrounding regional economy through multiplier effects.

**Development strategy**
To stimulate economic growth in lagging regions, growth pole theories advocate the establishment of leading or propulsive firms in such regions.

**Empirical application or testing**
The theory was widely applied by policy makers in the 1960s and 1970s in the setting up of so-called key villages. However, in practice numerous problems arose in the creation of growth poles in lagging and peripheral regions, as it was often difficult to induce technical multipliers. Hence, many leading or propulsive firms transformed into ‘cathedrals in the desert’.

**Usefulness and hypothesis for further research**
Opponents of the growth pole theories point out that the leading or propulsive firm’s location choice is ignored and that, in practice, it is often difficult to create growth poles in lagging and peripheral regions. Another objection against the growth pole theories is that it may contribute towards polarization within regions as the centre with the growth pole may drain all capital and labour from the other parts of the region (backwash effects). Despite these objections, it is still interesting to explore why and how multiplier effects around a leading or propulsive firms operate and to examine factors which prevent the occurrence of the multipliers. A hypothesis for further research in this study - given the availability of labour and capital - can be expressed as follows: ‘A growth pole and its multiplier effects stimulates employment’.

3.4.2 Kilkenny’s relationship of transport costs and rural development

**Positioning of the theory**
Kilkenny’s theory (1998a, b) belongs to the so-called ‘new economic geography’ (NEG). This recent school studies spatial concentrations of population and/or economic activity under conditions of increasing returns to scale and monopolistic competition. Usually, NEG models assume a two-sector economy comprising agriculture and industry and
allow for changes in the spatial division of economic activities through changes in transport costs (Fujita et al., 1999).

**Problem orientation (given the availability of capital and labour)**
The theory demonstrates that rural locations become attractive for industrial firms and workers when industrial transport costs are low relative to agricultural transport costs.

**Level of analysis**
Kilkenny refers to urban and rural regions, but she does not indicate the size of such regions.

**Notion of economic development**
Kilkenny uses the notion of rural rather than economic development. She characterizes rural development in terms of economic diversification and increases in population and welfare.

**Description of premises and mechanism**
The theory employs a general equilibrium model comprising two regions, the one ‘urban’ and the other ‘rural’. The largest proportion of the farmland is in Rural. There are three groups of actors: the immobile farmers and the mobile workers and firms who can move across regions. Farmers produce a homogeneous agricultural product. Industrial firms operate in a non-competitive market structure: they produce differentiated goods and are subject to increasing returns to scale. This implies that average costs of produced output fall as the quantity produced increases and that local wages are equal to the marginal costs of production. Both farm and industrial products are costly to transport across regions, but not within regions. So agricultural products are more expensive in Urban compared to Rural: in Rural the price equals the farmgate price; in Urban it is the farmgate price plus transport costs. However, the same does not apply to industrial products, since these are delivered at uniform prices in Urban and Rural. So transport costs of industrial products to consumers in a region other than where the firm is located, are costs for the firm, and not an additional charge for the consumer. Workers spend part of their income on agricultural products. Since these are more expensive in Urban, nominal urban wages have to be higher than those in Rural in order to compensate for the transport costs of agricultural products.

According to the model, firms choose locations where profits are highest and workers migrate to locations where real wages (i.e. nominal wages divided by the cost of living) are highest. When overall transport costs are low, there are more urban firms and fewer rural firms. At high transport costs, relatively more firms are located in Rural. If one supposes an exogenous decrease in industrial transport costs, simulations with the model show that at relatively low agricultural transport costs, this favours a concentration of firms in Urban. However, at relatively high agricultural transport costs, decreasing industrial transport costs enhance rural locations. In this case the gap between urban and rural nominal wages is quite large, so the combined costs of supporting a (cheap) rural workforce and transporting industrial output are lower than the costs of supporting an (expensive) urban workforce. Simultaneously, workers migrate from Urban to Rural, pulled by relatively high real rural wages and the presence of firms.
Development pattern
The theory distinguishes two types of economic activities: agriculture and a wide range of industrial activities. Given relatively low industrial transport costs and high agricultural transport costs, the rural region transforms from an economy based on agricultural activities to a diversified economy with agricultural and industrial activities.

Development strategy
Kilkenny remarks that theories are abstractions, which invite a wide range of interpretations. In the formulation of a development strategy, Kilkenny identifies three main implications arising from her model:

a  The role of transport costs
Firms have different transport costs: there are firms with high transport costs and firms that have low costs. The model shows that rural locations can be an attractive location for firms with low transport costs. In the model, a reduction of industrial transport costs is exogenously given. Such a reduction refers, for instance, to improvements in the electronic communication infrastructure. A development strategy which targets at the provision of infrastructure as a public good such as an internet backbone can be recommended.

b  Increase in real rural wages
High real rural wages relative to real urban wages attract workers. The model assumes, however, that an increase in real rural wages through higher nominal rural wages or lower rural prices would expel firms from rural locations. On the other hand, real rural wages can also be raised by the provision of public goods such as space and rural amenities. Any development strategy should aim at making rural areas more attractive places to live in by increasing the quality of public goods of space and amenities.

c  Product differentiation
In the model, monopolistically competitive firms each produce a unique variety, which they sell at average (rather than the lower marginal) costs. Applying this to rural regions means a strategy towards distinguishing themselves from other regions by developing uniquely attractive features. This may attract tourists, tourist services which need workers, and may make rural places more attractive to the rural population itself.

Empirical application or testing
The model is not empirically tested.

Usefulness and hypothesis for further research
Due to the restrictive premises of Kilkenny’s model, some doubts can be raised about its usefulness for explaining economic development in rural regions. Nevertheless, the model provides some interesting insights in the role of transport costs, real wages and differentiation of rural regions, which might be considered in development strategies. A hypothesis for further research in this study - given the availability of labour and capital - can be expressed as follows: ‘Relatively low industrial transport costs stimulate the establishment of firms in rural regions.’
3.4.3 Myrdal’s cumulative causation theory

Positioning of the theory
Myrdal’s theory (1957) belongs to the discipline of development economics and can be put in the group of pure agglomeration models.

Problem orientation (given the availability of capital and labour)
Myrdal focuses on the large and steadily increasing inequalities between developed and under-developed countries/regions. He expects that as a result of a cumulative causation process, richer countries/regions get richer and poorer countries/regions become poorer.

Level of analysis
Myrdal’s theory refers to both countries and regions.

Notion of economic development
Economic development in wealthy regions refers to an increase in employment and income, resulting from a cumulative process of ever-increasing internal and external economies, fortified and sustained at the expense of other regions where instead relative stagnation and regression become the pattern (Myrdal, 1957:27).

Description of premises and mechanism
Myrdal’s starting point is the rejection of the assumption of a stable equilibrium in the neoclassical economic theory. He suggests that every disturbance in an economic system does not provoke a reaction towards restoring the state of equilibrium, but rather tends towards a further move from the equilibrium in the same direction as the first change. Because of such circular causation, the process tends to become cumulative and often gathers accelerating momentum. Myrdal also puts another reason forward as to why the state of equilibrium would not be attained: economic theories tend to be restricted to the interaction of the so-called ‘economic factors’ and hence disregard a large part of social reality, which can be referred to as ‘non-economic factors’. Such non-economic factors should not be taken as given and static; when they react, they usually do so in a disequilibrating way. A realistic analysis of economic development should, therefore, take both economic and non-economic factors into account, thereby making a distinction between ‘more relevant’ and ‘less relevant’ factors (Myrdal, 1957:9-13).

Myrdal’s theory distinguishes between developed and under-developed regions. The location of a firm in a particular region gives a spur to its general development. It provides employment opportunities and demand for products and services from existing local business. This expansion of production results in an immigration of (often high skilled) labour from lagging regions. One expansion in the region induces another expansion, as new firms are attracted by the already existing concentration of economic activities, a relatively large size of the market, which enables scale economies, and a diversified labour market. The production of consumer services will also expand with the rising population in the wealthy region. The increase in tax revenues enables the provision of infrastructure. This cumulative process of concentration and expansion of economic activities in the wealthy region has a number of harmful implications for the so-called lagging regions: these are deprived from labour and capital, the so-called
‘backwash effects’. Furthermore, the non-expanding regions face increasing disadvantages since these regions cannot maintain a good infrastructure, a good school system, and other public utilities. This will again increase their competitive disadvantages. Moreover, the entire value system of people living in backward regions is likely to change and influence further development negatively.

**Development pattern**

In the course of time, the play of forces in the market normally tends to increase the inequalities between wealthy and lagging regions. According to Myrdal, this tendency is often stronger in underdeveloped countries than in developed countries. However, two factors may counteract the increasing inequalities. First, lagging regions can profit from the so-called ‘spread effects’: a deconcentration of economic activities out of the wealthy region largely due to high land prices, shortages in the labour market and traffic congestion. When these spread effects are strong enough to counter the backwash effects in the lagging regions, new centres of self-sustained economic expansion come into being. The higher the level of economic development that a country has already achieved, the stronger the spread effects, mainly due to well-developed systems of transportation and communication. Second, in welfare states, state policies have been initiated which aim at counteracting regional inequalities. Hence Myrdal suggests that state policy may diminish the impact of market forces in generating backwash effects, while reinforcing spread effects.

**Development strategy**

The process of cumulative causation can be stopped by an exogenous change such as earthquake or war, which brings the system to rest. Alternatively, policy inferences can be used to stop the cumulative causation process (Myrdal, 1957:13).

**Empirical application or testing**

Myrdal’s theory is based on an extensive study of development processes in developed and developing countries. It formed a basis for many studies on regional patterns of economic activity within and among countries (Lambooy *et al.*, 1997:86-7).

**Usefulness and hypothesis for further research**

Myrdal’s theory explains how cumulative processes result in the co-existence of wealthy and lagging regions. As there are both leading and lagging rural regions in the EU, it is interesting to examine whether Myrdal’s theory can be used to describe this situation. However, circular causation and policy interference highly complicate such an examination. A hypothesis for further research in this study - given the availability of labour and capital - can be expressed as follows: ‘Leading regions cumulate wealth whereas lagging regions lose wealth’.

### 3.4.4 Community-led rural development theory

**Positioning of the theory**

This development theory belongs to the endogenous development approach in the debate on economic development in rural studies. Due to its emphasis on capacity building and
institutional structures, it has also links with sociology and political sciences. Apart from the label ‘community-led rural development theory’ (Murray and Dunn, 1995), labels like ‘community development’ (Keane and Ó Cinnéide, 1986) and ‘bottom-up partnership approach’ (Mannion, 1996) are also used to describe this approach.

**Problem orientation (given the availability of capital and labour)**
The community-led rural development theory focuses on the strengthening of the self-help capacity of local actors, which is considered to be a major precondition for establishing and sustaining local economic development. Partnerships and adjustments of the institutional structures are seen as the main tools in the process of capacity building.

**Level of analysis**
The theory refers to communities and rural regions.

**Notion of economic development**
Economic development is defined by an increase in employment and income.

**Description of premises and mechanism**
The starting point for this theory is the observation that many rural regions and communities experience genuine difficulties in generating economic development, largely due to insufficient capacity to solve economic problems, an inadequate institutional milieu and lack of political responsibilities. The theory suggests that the building of self-help capacity of communities serves as a key to solve these bottlenecks. Self-help capacity refers, for example, to organizational expertise of rural communities with regard to group processes, conflict resolution, mediation, leadership, understanding the business of government, and achievement of a shared vision. The ultimate goal of the theory is to transform an attitude of apathy and dependency into one of spiritedness and self-reliance. Or putting it simply, it aims at teaching people how to catch a fish rather than presenting them one on a plate (Keane and Ó Cinnéide, 1986:287).

Capacity building tends to be a slow process and often involvement of outside animateurs is required. The process consists of two main elements: the creation of partnerships among actors and the adjustment of the institutional structure. Effective partnerships are those which (Mannion, 1996:5):
- represent and bring together all relevant groups and sectors and enable them to identify and bring forward development possibilities;
- link individual and community development proposals with sources of support and funding;
- consist of private sector representatives who are willing to share power, experience and responsibility as equals with community representatives;
- take into account regional or local requirements and initiatives.

Adjustment of the institutional structure is especially needed with respect to the linkages between the local, regional and national authorities, as the community-led development theory recommends an institutional structure that encourages and responds to bottom-up initiatives.
**Development pattern**
The first stage consists of building of the self-help capacity of communities, i.e. establishment of partnerships and adjustment of the institutional structure. If the first stage results in an attitude of spiritedness and self-reliance among local actors, the second stage of generating and sustaining economic development may start. However, the theory is restricted to the first stage.

**Development strategy**
The initiative for community-led rural development may lie in the hands of community leaders, but often assistance from outside is necessary, like partnerships with regional or national authorities, universities and development agencies.

**Empirical application or testing**
The approach has among others been applied in Colorado, USA (Murray and Dunn, 1995) and Ireland (Keane and Ó Cinnéide, 1986). Besides, it is widely advocated in the EU in the LEADER programme.

**Usefulness and hypothesis for further research**
The community-led rural development theory identifies a main precondition for generating and sustaining economic development in rural regions: the existence of community capacity to function effectively on a self-help basis. The theory reminds us that in our analysis of economic development in rural regions, the preconditions should be taken into account. A hypothesis for further research in this study - given the availability of labour and capital - can be expressed as follows: ‘A well-developed self-help capacity of communities stimulates employment growth’.

3.4.5 **Bryden’s theory on the potentials of immobile resources for creating competitive advantages in rural areas**

**Positioning of the concept**
Bryden’s theory can be placed in the debate on economic development in rural regions, and can be considered to be a specific application of an endogenous growth model. The theory is rooted in sociology, regional economics, political science, institutional and management studies.

**Problem orientation (given the availability of capital and labour)**
A key feature of the current globalization process is the increased mobility of capital, skilled labour, information and other goods and services. Bryden (1998) argues that given this mobility, these resources are a rather unstable basis upon which to build a development strategy for rural areas. Besides, these mobile resources are scarce, implying that rural areas have to compete with each other for these resources, and that the success of the one can only be achieved at the cost of the other. Hence Bryden suggests that the competitive advantage of rural areas should be based on immobile resources, which are not open to competition.
**Level of analysis**
The territorial level of Bryden’s theory refers to regions with about the size of provinces in the Netherlands, départements in France and counties in the UK.

**Notion of economic development**
Bryden uses the term local development rather than economic development; local development covers diversification of economic activities, the expansion of markets, capturing more value added and strengthening local capacities and improving the quality of life.

**Description of premises and mechanism**
Bryden argues from the endogenous approach of rural development, thereby emphasizing the transfer of the responsibility and control of the local development process to the local actors, the empowerment of local actors, and the heterogeneity of rural regions. The key question put forward by Bryden (1998:3) is: ‘Why do rural regions and localities in apparently similar economic, social and environmental circumstances have markedly different performance over relatively long periods of time?’ As an answer to this question, he suggests the hypothesis that the differential development of rural regions can be explained by a combination of tangible and less tangible factors and the way these interact with each other in the local context. Tangible factors refer, for example, to resource availability, infrastructure endowment, employment/unemployment rates, education level, labour costs, exports and imports, and the degree of dependence on declining sectors such as agriculture. Less tangible factors may include items such as the existence of an innovative milieu, social capital and social competence, environmental capital, the nature of external linkages, new consumption demands on rural space and historical conditions. These factors by and large reveal the opportunities and constraints in local development and also reflect the effectiveness of the local and regional institutional system in handling these opportunities and constraints.

Bryden builds upon the results of a project on the success and failure of local development initiatives coordinated by Stöhr (1990), undertaken in about 50 case study areas in Europe in the late 1980s. This project concluded that successful local initiatives were mainly indigenously triggered and oriented towards the mobilization of local entrepreneurial resources, economic diversification, the introduction of new products, the upgrading of skills and the introduction of new organizational forms for economic, cultural and training initiatives. On the other hand, less successful local schemes tended to be characterized by heavy reliance on external (state) agencies, the concentration of efforts on intensifying - rather than diversifying - existing local activities and a lack of local entrepreneurial capacity. Another main building block for the theory of Bryden is the observation of the increased mobility of capital, skilled labour and information in the current globalization process. As mobile investments are rather scarce, local development strategies based on these mobile assets can only be achieved at the cost of other regions, what can be referred to as a ‘beggar-their-neighbour strategy’. Based on these two building blocks - endogenous development and objections against mobile investments - Bryden derives his thesis that the competitive advantage of rural regions should be based on immobile resources.
Immobile resources are resources specific to the locality and which cannot be moved to another location. Some of them are tangible like property, physical infrastructure and natural resources, and others are intangible like knowledge, values and culture. Bryden distinguishes four types of immobile resources:

1. **Social capital**: the features of social organization such as trust, norms and networks, that can improve the efficiency of society by facilitating co-ordinated actions. Social capital is embedded in relationships among people; it tends to cumulate when it is used and to be depleted when it is not.

2. **Cultural capital**: this includes history, traditions, customs, language, music, art and stories, that may be territorially defined as belonging to an area.

3. **Environmental capital**: this refers to the actual physical conditions of an area. It includes both natural environmental capital (landscape, climate etc.) and built environmental capital (structures of historical significance, physical and tourist infrastructure).

4. **Local knowledge capital**: this is about the capacity of the area to generate, sustain and build on formal and informal stocks of knowledge and information.

**Development pattern**

Although Bryden does not give a development pattern in his theory, it is likely that a development pattern would entail growth in the endogenous sectors.

**Development strategy**

In order to reduce the vulnerability of local areas to global forces, rural areas should build their development strategies on the immobile resources. These include social capital, cultural capital, environmental capital and local knowledge capital, and are all endogenous. Nevertheless, when mobile investments from outside become available, these should be captured and related to the immobile resources.

**Empirical application or testing**

The potential of immobile resources has empirically been tested and confirmed in five case studies involving the activities of five LEADER groups which were analyzed (Bryden, 1998). In all the case studies the local development strategy was based on immobile resources. Together with three other European countries, the Arkleton Centre in Aberdeen is currently undertaking more studies on this topic in the scope of the so-called Dynamics of Rural Areas (DORA) project (Bryden et al., 2000).

**Usefulness and hypothesis for further research**

Within the group of endogenous growth models, Bryden isolates one specific group of factors - the immobile resources - which he considers to be crucial for local development strategies. As such, he categorizes the immobile resources into four types of capital. Bryden’s theory takes the opportunities and constraints of the current globalization process into account and it is explicitly directed at rural regions. This makes Bryden’s theory attractive in the scope of our study. Some doubts on Bryden’s theory concern the neglect of external linkages and the rather negative valuation of the competition for mobile resources. Both external linkages and mobile resources may help in the adaptation of innovations. A hypothesis for further research in this study - given the availability of
labour and capital - can be formulated as follows: ‘The exploitation of immobile resources stimulates employment growth’.

3.4.6 Creative destruction model of community development

Positioning of the theory
The creative destruction model of community development (Mitchell, 1998) has been included in the debate on economic development in rural studies and can be considered a specific application of the local milieu models. The idea of ‘creative destruction’ is derived from Schumpeter, hence the model can be said to have its roots in economics.

Problem orientation (given the availability of capital and labour)
The desire of urban residents to experience the countryside ideal has engendered the creation of heritage-shopping villages. The problem, then, is that overexploitation of the rural idyll in such villages ultimately leads to its destruction. The model distinguishes five phases in the development of heritage-shopping villages and indicates at which phase destruction of the rural idyll may be prevented.

Level of analysis
The model focuses on a rural town.

Notion of economic development
Here economic development refers to increasing income and employment in the heritage-shopping village. Besides, the heritage-shopping village will cast a positive favourable influence on the surrounding area and enhance its economic activities.

Description of premises and mechanism
The model addresses the commodification of the countryside ideal, which has resulted in ‘heritage-shopping villages’ like Nelson and St. Jacobs in Canada and Albarracin in Spain. Such villages share the following common characteristics:
- they are centres of consumption, which specialize in the provision of handcrafted products reflecting local or regional heritage;
- they are easily accessible to a large and relatively affluent population;
- they are replete with a favourable amenity environment;
- there are entrepreneurs who are willing to invest in the selling and marketing of rural values and traditions.

The investments of entrepreneurs in the restoration or reconstruction of vernacular buildings, shops, restaurants etc. boost economic activities and employment, but simultaneously imply tensions between visitors and local residents, especially when the number of visitors increases.

The model assumes that the development of the heritage-shopping village is based on the relationship among three variables: entrepreneurial investment, consumption of rural heritage and destruction of the rural idyll. The underlying premise is that entrepreneurial selling and marketing of the rural heritage entices the post-modern consumer in search of a nostalgic return to rural roots. The resulting consumption of rural heritage provides
entrepreneurs with profit for reinvestment in rural heritage. This may lead to a cumulative process of increasing consumption of rural heritage and new rounds of investments. Ultimately the overexploitation of rural heritage destroys the rural idyll.

Development pattern
The creative destruction model distinguishes five stages in the development of a heritage-shopping village. In the first two stages of early and advanced commodification, the rural idyll is exploited. In the third phase of pre-destruction, too many visitors come to the village resulting in a situation of overexploitation while simultaneously a growing number of residents perceive an erosion of their community. Tensions increase and in the next phase of advanced destruction, outmigration of local residents may occur, resulting in the disintegration of community life. Finally, the stage of post-destruction sets in.

Development strategy
In order to prevent the ultimate destruction of the heritage-shopping village, Mitchell (1998:284) advises a development strategy which remains in the phase of early commodification, when investment levels and surplus value are not excessive, economic gains are still realized by an influx of tourists and local residents’ perception of their amenity environment is still positive. However, according to Mitchell it is rather illusory to believe that equilibrium can be achieved in this phase, as entrepreneurs must be satisfied with making sub-optimal economic gains.

Empirical application or testing
The model has been tested and confirmed in the community of St. Jacobs, Ontario, Canada.

Usefulness and hypothesis for further research
One main shortcoming of the model in the scope of our study is that it refers to a town with its immediate surrounding, and not to a region. Nevertheless, the model provides an interesting lesson: overexploitation of the rural heritage leads to its destruction, so measures have to be taken in order to prevent such an overexploitation. As rural regions are usually endowed with rural amenities, the development strategy of this model gives an interesting recommendation for safeguarding the sustainability of rural amenities. A hypothesis for further research in this study - given the availability of labour and capital - can be expressed as follows: ‘Overexploitation of rural amenities destroys employment in sectors related to these rural amenities’.

3.4.7 The theory of the innovative milieu

Positioning of the theory
The theory of innovative milieu belongs to the mainstream regional economic growth theories, as already indicated in Section 3.2.4. The theory of innovative milieu has been put forward and worked upon by the Groupe de Recherche Européen sur les Milieux Innovateurs (GREMI) since the mid-1980s. GREMI is an international association of European and North American scholars engaged in theoretical and empirical research in the field of spatial development and local innovation processes. It was founded by
Philippe Aydalot (Université de Paris 1) in 1984 and later on chaired by Roberto Camagni (Milan). Some past and current members of this association are David Keeble, Roberta Capello, Richard Gordon, Denis Maillat, Michel Quevit and Roberta Rabellotti.

The theory of innovative milieu can be considered a dynamic counterpart of theories which have been developed within the framework of the local milieu models like ‘industrial district’, ‘local context’ and ‘local production system’ (Camagni, 1995a: 201). In these local milieu models attention is paid to areas where strong elements of local entrepreneurship, close interaction and cooperation among enterprises and externalities originating from specialized labour markets result in a high competitiveness of the local production fabric, which often consists of SMEs. The object analyzed by GREMI is a ‘territorial system of production and innovation’ (TSPI), in which space is not merely a container for economic activities, nor just a production factor. Space is also regarded as relational space, capable of implementing and breaking down stimuli, ways of diffusion, and dynamics of adjustment (Bramanti and Miglierina, 1995, cited in Bramanti and Ratti, 1997:5). Apart from the GREMI approach, there are four other schools focusing on the dynamics of TSPI, which partly complement and overlap GREMI: the Italian district school, the Californian school of new industrial geography, the French regulationist school and the evolutionist-industrialist school (Bramanti and Ratti, 1997:15).

Problem orientation (given the availability of capital and labour)
The innovative milieu approach is oriented towards showing the underlying common sources of the respective development patterns of each territory. These sources are supposed to consist of local synergies and local innovativeness, fed by external energy from trans-territorial network linkages.

Level of analysis
The territorial level of an innovative milieu can refer to a province, county or a single municipality (Camagni, 1995b:332).

Notion of economic development
The innovative milieu embodies a certain amount of income and employment. Within the GREMI approach, the focus is not so much on development in the sense of change in income or productivity, but more on the question of how to keep the innovative milieu viable. Since it is assumed that innovation processes are the driving forces behind the innovative milieu, development can be considered as the continuous reproduction of the innovative capacity of the milieu, in which the very origin of the innovative milieu appears as a major innovation (Camagni, 1995a:204-5).

Description of premises and mechanism
The GREMI approach conceptualizes industrial behaviour within a geographical area. It is assumed that industrial behaviour is driven by innovation. This brings us to the following two dimensions of the theory of the innovative milieu:

1 Local milieu (or environment)
This refers to areas, in which the competitiveness of the local production fabric of flexible SMEs is enhanced by strong elements of local entrepreneurship, close interaction...
and cooperation among firms, and relevant externalities associated with specialized labour markets (Camagni, 1995b:318).

2 Innovation processes

Such processes are considered to have various aspects: it is a matter of creative destruction in the Schumpeterian sense; innovation is both a collective and interactive process; it stems from a creative combination of generic know-how and specific competences; and territorial organization is an essential component in the process (Bramanti and Ratti, 1997:5). Innovation processes provide dynamic efficiency to the local milieu and are reflected in a number of different types of capacities: the capacity to imitate and create technology; fast reaction capability; capacities for shifting resources from declining production sectors to new ones while utilizing the same fundamental know-how; and the capacity to regenerate and restructure a local economy hit by external turbulence (Camagni, 1995b:318).

By emphasizing the two dimensions of space and innovation, the innovative milieu can be defined in terms of ‘a set of relationships bounded in a geographical area which unites a production system, different actors, an industrial culture and self-representation, and generates localised dynamic processes of collective learning’ (Camagni and Rabelotti, 1997: 139). In this definition, space is linked to relational space and innovation to collective learning processes. In addition, the term ‘production system’ needs further explanation: it does not refer to all firms in the specific area, but only to those actors belonging to a ‘filière’, a chain of vertically integrated sectors, for instance, around shoes, silk or furniture. A silk filière may include firms involved in silk manufacturing, silk design, silk fashion creation, machines/tools and computer software for silk manufacturing, worldwide marketing of silk etc. (Camagni, 1995a:210).

The continuing reproduction of the innovation capability of the innovative milieu may by no means only be attributed to its internal functioning. External energy in the form of technological, organizational or market information is crucially needed (Camagni, 1995b:321). This information is obtained by means of trans-territorial networks. So two types of networks can be distinguished in the innovative milieu (Camagni, 1995a:197):

1 local networks, in which the element of proximity - spatial, culturally or psychological - generates three distinctive features: density of relations, informality and openness;

2 trans-territorial networks, which are systems of relations over a long distance, where the non-proximity of partners implies and requires relatively few links, greater formalization of relations, network selectivity and closure.

Development pattern

We start the discussion on the development pattern with a presentation of the innovative milieu in a coordinate system, based on the following two indicators (Camagni, 1995b: 333-34):

1 index of local synergies: joint projects and joint ventures among local firms, turnover in skilled labour, the presence of public agencies to stimulate technological transfer, and the presence of vocational training and organizational consulting units;
The innovative milieu is positioned at high values of both indices in the coordinate system (Fig. 3.5). In quantitative terms, the index of local synergy can be proxied by the growth rate of employment in the indigenous activities, and the index of local innovativeness by the growth rate of productivity.

In the GREMI approach, development deals with the question of how to keep the innovative milieu viable, or how to keep it at its position in the coordinate system. The interaction of the next four interrelated mechanisms or conceptual blocks are supposed to drive the innovative milieu on its proper growth path (Bramanti and Ratti, 1997:35-9; Bramanti and Senn, 1997:69-72):

1. **Industrial production system**
   This system refers to the specific context of exchange between firms, like the input-output relations, degree of specialization, the sectoral mix, subcontracting agreements and the presence or absence of a dominant firm.

2. **Support space**
   The support space refers to the relations outside the market, which are enforced by appropriate local policies. It reinforces milieu connections and external links, encourages the opening of the local system without the dispersal of accumulated knowledge and creates links between local leaders and progressive actors.

3. **Learning processes**
   These processes refer to the social and political ways in which a group of individuals react to change. The two extremes are represented by completely adaptive learning processes (all existing agents evolve together) and absolutely selective learning processes (survival of the fittest, those who adapt to change can survive). In the first case
progressive coalitions may arise, which generate and increase transformation of the skills and capabilities of individuals resulting in complementarity of actions among them. However, in the second case regressive coalitions may emerge, consisting of groups of individuals united by a common interest of opposing the negative selection process, and resisting innovation.

4 Governance structure

The production system is not only governed by the price mechanism but by other mechanisms that regulate the power relations among actors as well. A core ring with a coordinating firm, which is the lead, systematic agent in the input-output system, but which is unable to function on its own, seems to be most suitable to ensure the balancing of the internal/external connections. In such a situation there is some power and some hierarchy.

There is no uniform development pattern of the innovative milieus, as these originate from different contexts and starting points, so history matters. To evolve positively, the innovative milieu should dynamically balance its internal strength (local synergy) and its opening to the world (external energy). An unbalanced mix of internal and external connections may result in the disintegration of the innovative milieu. According to Bramanti and Ratti (1997:33), structural changes may move the innovative milieu towards:

- increasing complexity/enrichment/diversification;
- hierarchization, distinguished in the growth process of certain actors;
- external reticulation, with either an internal or external centre of gravity.

Development strategy

In the description above of the development pattern, the assumption is that the innovative milieu already existed and that it evolved along its growth path. The development strategy discussed here is based on the intention of creating an innovative milieu in a certain region. In this respect, the theory of the innovative milieu can be perceived as a meta-model for local development, showing the underlying sources of the single development patterns of each territory. If development is to be effected, it must involve the following four meta-items (Camagni, 1995b: 321-25):

1 The involvement of local resources
The involvement and utilization of local resources in the development process guarantees its genuine nature. If in the absence of local entrepreneurs, external investments are attracted, these have to be linked up with and involve other local sources than merely cheap labour and an unspoiled environment. In fact, external investments must be embedded in the local community in such a way that they initiate wider processes of local subcontracting, transfer of technological and organizational models, training of the higher educated towards self-employment and entrepreneurship, and utilization of education and training facilities.

2 The creation of synergy among local actors and factors
Local synergy arises in formal and informal relationships like customer-supplier cooperation, cooperative sharing of revenues, horizontal subcontracting, wide circulation of information through skilled labour mobility, fast imitation of successful practices in technology, organization and marketing, local agencies which practise cooperative sharing of the costs of common infrastructure and service projects on vocational training,
fairs and technology transfer. An enlightened entrepreneur, a local bank or an association of local industrialists can act as a catalyst for the creation of such synergies.

3 The link-up with external energies
The capability and competitiveness of a small area is limited in the face of massive international evolutionary processes. Cooperation with external institutions, firms or public agencies and research centres is therefore crucial for the continuous recreation of local competitiveness and innovation capability.

4 A continued process of innovation
The innovation in the area is characterized by a wide range of factors, like intersectoral job shifts, fast diffusion of successful practices, application of advanced technologies in traditional spheres of production, incremental innovations applied to existing products and radical innovations.

**Empirical application or testing**
The theory of innovative milieu is based on broad empirical evidence of the GREMI group. Innovative milieus have been found in successful newly developed areas in many differentiated regional contexts: in metropolitan areas around Milano, Paris, Barcelona and Tessalonica with specializations in the most advanced types of production, in non-metropolitan areas like Third Italy, Saint-Etienne, Poitiers and the Tessin area in Switzerland with specializations in more traditional sectors, poles of excellence like the Silicon Valley and Grenoble and also in areas within lagging regions like the Mezzogiorno, Crete and Southern Spain (Camagni, 1995b:320-21). These innovative milieus showed the following meta-characteristics:

1 some specialization in a filière or a technology;
2 strong interactions and synergies within the area;
3 broad imitation and collective learning processes;
4 a strong psychological sense of belonging to a local community.

**Usefulness and hypothesis for further research**
The theory of innovative milieu can be considered to be useful for the analysis of economic development in rural regions for several reasons: it is comprehensive, it takes the current globalization process into account and it is based on ample empirical evidence. The theory of innovative milieu does not cover the whole territory of a rural region; it focuses on filières, or complexes of related economic activities located in a limited part of a region. In a sense, these innovative milieus can be considered as the triggers of the rural economy. Besides, firms are the central actors in the theory; the role of policy makers is limited to shaping preconditions for the creation of local synergy and the establishment of external links. A hypothesis for further research in this study - given the availability of labour and capital - can be expressed as follows: ‘Filières, which are characterized by local synergy, local innovativeness and transterritorial networks, stimulate employment growth’.
3.4.8 Porter’s theory on the competitive advantage of nations

Positioning of the theory
The theory of Porter (1990) is based on different disciplines: industrial economics, international trade theory, management and organization science and theories of competitive strategy. However, at its core it is a theory of competitive strategy.

Problem orientation
The central question which Porter (1990:18) poses is why firms based in particular nations achieve international success in distinct segments and industries. In his theory, he searches, therefore, for the decisive characteristics of a nation that allow its firms to create and sustain competitive advantage in particular fields. Porter suggests that a nation’s competitiveness mainly depends on six determinants, which form together a mutually reinforcing system: the so-called diamond.

Level of analysis
The analysis is carried out at a national level. Nevertheless, Porter’s theory ‘can be readily applied to political or geographic units smaller than a nation’ since successful firms are frequently concentrated in particular regions within a nation. (Porter, 1990:29).

Notion of economic development
In Porter’s theory, the competitiveness of a nation is determined by its productivity. Productivity is defined as the value of output produced by a unit of labour or capital with which a nation’s resources are deployed. Economic development is achieved by an increase in productivity, resulting either from lower costs of production or from differentiated products that command premium prices. Economic development or economic prosperity primarily refers to success in the global market.

Description of premises and mechanism
Porter suggests that firms can and do choose strategies that differ. The home nation of a successful international firm is seen as that in which the essential competitive advantages of the enterprise are created and sustained. Porter distinguishes two basic types of competitive advantage for firms: lower costs and product differentiation. Firms can gain and sustain international competitive advantage through improvement, innovation and upgrading.

Porter uses a ‘diamond’ to portray the determinants of national advantage. He distinguishes four main determinants, which individually and as a system create the context in which a nation’s firms are born and compete. These four determinants are:

1. Factor conditions
These refer to production factors that form the inputs necessary to compete in any industry. They can be divided into basic factors and advanced factors. Basic factors include, for example, natural resources, climate, location, and unskilled and semiskilled labour, while advanced factors may refer to modern digital data communication infrastructure, highly educated personnel and university research institutes in sophisticated disciplines. Basic factors tend to be passively inherited. On the other hand, advanced factors have to be created in a process of large and often sustained investments
in human and physical capital. The advanced factors are considered to be highly significant for competitive advantage.

2 Demand conditions
These refer in particular to the composition of home demand, which shapes how firms perceive, interpret and respond to buyer needs. By doing so, the home demand contributes to the rate and character of improvement and innovation by a nation’s firms. Nations gain competitive advantage in industries or industry segments when the home demand gives local firms a clearer or earlier picture of buyer needs ahead of foreign rivals.

3 Related and supporting industries
The presence of internationally competitive supplier industries in a nation creates advantages in downstream industries in several ways, for example, via efficient, early, rapid and sometimes preferential access to inputs, via ongoing coordination in the chain of firms and their suppliers, and via processes of innovation and upgrading emerging from close working relationships between suppliers and industry. The presence in a nation of related industries often leads to new competitive industries, since networks of firms provide many opportunities for information flows and technical interchange.

4 Firm strategy, structure and rivalry
This determinant refers to the context in which firms are created, organized and managed as well as the nature of domestic rivalry. Many aspects of a nation influence the ways in which firms are organized and managed such as attitudes towards authority, norms of interpersonal interaction, attitudes of workers toward management, social norms of individualistic or group behaviour and professional standards. Domestic rivalry creates pressures on firms to improve and innovate.

In addition to these four main determinants, Porter distinguishes two other important determinants:

5 Chance
Chance events are occurrences that have little to do with circumstances in a nation and are often largely outside the power of firms to influence. Chance events refer, for example, to major technological discontinuities, significant shifts in world financial markets or exchange rates, political decisions by foreign governments and wars. Chance events are important because they can create discontinuities that allow shifts in competitive position.

6 Government
Governments can influence any of the first four determinants either positively or negatively through, for example, subsidies, policies toward the capital markets, policies toward education and R&D, its role as buyer of many products of the nation, tax policy and antitrust laws.

These six determinants form together a mutually reinforcing system of national advantage, the so-called diamond (Fig. 3.6). This diamond can be seen as a dynamic system in which the determinants are interactive and reinforce each other. The determinants themselves are influenced by cultural, social and political factors. The diamond is transformed into a system by two elements: domestic rivalry and geographic concentration. Domestic rivalry stimulates the upgrading of the whole diamond while geographic concentration strengthens the interactions within the diamond.
Figure 3.6  The complete system of determinants of national advantage


Figure 3.7  The four stages of national competitive development


Development pattern

Porter suggests that there are four stages in the development of national competitiveness (Fig. 3.7). In the first stage, development is driven by basic factors of production, such as favourable regional conditions, a high-skilled labour force etc. In the second stage, the investment stage, national advantage is based on the willingness and ability of a nation or region and its firms to invest aggressively. In the third stage, the innovation stage, the full diamond is in place in a wide range of industries, with a strong interaction between all determinants. In the fourth stage, the wealth-driven stage, there is a loss in competitive advantage because of losses in rivalry and motivation, the loss of a sophisticated home demand and the deterioration of factor conditions.
Development strategy
Porter points out that companies and not nations are on the front line of international competition. Nevertheless the home nation plays a central role in the international success of a firm. The home base of a firm mainly shapes its capacity to innovate rapidly in technology and methods and to do so in proper directions. A global strategy supplements and solidifies the competitive advantage created at the home base. With respect to strategies, a distinction can be made between a strategy of companies, and a strategy of governments to sustain the strategies of companies. The strategy of governments should consist of providing the right infrastructure, education and training, (cheap) capital and information. In addition, the government can play a role in promoting and supporting technology and science.

Empirical application or testing
In the 1970s and the first half of the 1980s, companies rather than nations were Porter’s central subject of concern. In this period, he concentrated on the nature of competition in industries and the principles of competitive strategy. In this work, the nation and its government had only a limited role. This changed when Porter was appointed to the American President’s Commission on Industrial Competitiveness. This appointment can be seen as the starting point for the development of his theory on the competitive advantage of nations. The theory begins with individual industries and competitors and builds up to the economy as a whole. A wide range of nations has been studied by Porter for the development of a comprehensive theory of the competitive advantage of nations and to demonstrate its relevance. Within each of the nations, details of competition in many industries have been investigated.

Usefulness and hypothesis for further research
Although the theory of Porter focuses on nations, this theory can also be useful for explaining the competitive advantage of regions. Porter points out that industries are not evenly distributed over geographic space. Geographical concentration of successful firms often occurs because geographic proximity may strengthen the mutual reinforcement of the determinants in the diamond. According to Porter, efficiency and specialization tend to be stimulated if suppliers, customers and rivals are geographically concentrated. A possible disadvantage of using Porter’s theory is that because of his holistic approach it may be difficult to find out which of the many possible factors are the most important or decisive for a region’s progress or decline. A hypothesis for further research in this study - given the availability of labour and capital - can be expressed as follows: ‘A strong interaction and mutual reinforcement of the six determinants in the diamond enhances the competitiveness of firms’.

3.4.9 Mixed exogenous/endogenous development approach

Positioning of the theory
The mixed exogenous/endogenous development approach reflects the third phase in the debate on economic development in rural studies and is based on regional economic theory, institutional economics and rural sociology. It can be seen as a specific application of the territorial innovation models. The theory has been put forward by
Problem orientation (given the availability of capital and labour)
The mixed exogenous/endogenous development approach rejects the polarization of exogenous and endogenous development models and proposes ‘an approach of the analysis of rural development that instead stresses the interplay between local and external forces in the control of development processes’ (Lowe et al., 1995:87). In this approach, the analysis of economic development is considered as an analysis of networks.

Level of analysis
The territorial level concerns regions.

Notion of economic development
Rural development is perceived as a ‘complex mesh of networks in which resources are mobilized, identities fixed and power relations consolidated’ (Lowe et al., 1995:103). These networks may include both local and external actors. So economic development is considered in terms of a social process, or more specifically as a set of power relations, which affects employment and income through networks.

Description of premises and mechanism
The mixed exogenous/endogenous approach comprises a synthesis of the exogenous models on rural development till the 1970s and the endogenous models of the 1980s. The mixed exogenous/endogenous approach relates rural development to the process of increasing globalization, mainly due to rapid technological changes in the communications and information sectors. In this changing global context, actors in rural regions tend to be involved in both local networks and external networks, but the size, direction and intensity of networks may vary among regions. This variety emerges since networks are embedded in particular sets of economic, social, cultural and natural conditions that exist in given rural areas (Murdoch, 2000:417). The nature of links in networks is multi-faceted, for example, intra-firm links, inter-firm links, links of firms with local and non-local institutions and links among institutions. Hence rural development is considered as a complex mesh of local and external networks, in which resources are mobilized, and constituted in ways which have consequences for local actors.

Lowe et al. give two examples of the different impact of networks on rural areas. One refers to a price-sensitive company, which locates unskilled tasks to peripheral regions. Such companies tend to have a traditional hierarchical division between the organization’s core and the peripheral operations, and benefits are likely to go to the centre. The other example discusses a performance-oriented company, which derives its competitiveness from quality production and which seeks favoured locations for qualified personnel. Such companies tend to work on a cooperative rather than a hierarchical basis with other parts in the organization, and tend to be product-based rather than task-based. Performance companies are more likely to transfer skills,
entrepreneurship and technologies into an area and to develop complex local supplier linkages, which may foster further rounds of economic development.

In adopting the view that rural development is a complex mesh of networks, Lowe et al. propose to transform the analysis of economic development of rural regions into an analysis of networks. The focus on networks usefully integrates economic forms with social processes. From the perspective that networks are sets of power relations and that local and external networks form a geography of networks, the analysis of networks focuses upon questions like (Lowe et al., 1995:100):
- which actors come to exercise power over others within and through networks?
- how are local actors drawn into sets of relations and on what terms?
- what links local actors to external actors?
- how do external actors effect change and control from a distance?

From the network analysis, insight can be obtained into which particular networks provide beneficial outcomes for rural regions. Some of these networks might be region specific, others might be complex internal/external relations. On the other hand, the network analysis may also provide insights into the inequalities and asymmetries within the networks which result in a weakening of the position of local actors.

**Development pattern**

The development pattern refers to the involvement of local actors in networks. The development pattern is diverse and region specific: some local actors are plugged into external networks while others are involved in local networks. The external networks are seen as main vehicles for transmitting benefits to the local area, but whether local actors manage to do this depends on the power relations in the network.

**Development strategy**

Two simultaneous activities for a development strategy are advised:
1. try to create linkages between internal networks and institutions, so that ‘thick’ ensembles arise, which are mutually reinforcing and able to put regions on viable growth trajectories;
2. try to affect the balance of power in local/external networks in such a direction that local actors are enabled to exert control and to retain a reasonable proportion of the value added.

Some regions will not manage to generate development. If regions are trapped in a situation of inequalities and asymmetries within the networks, a policy goal might be to reshape the networks by seeking equity between participants and equality of participation.

**Empirical application or testing**

The approach is not empirically tested by Lowe, Murdoch and Ward, but based on a literature review of industrial districts which revealed that economic, social and institutional relations and internal and external linkages largely vary among industrial districts. This approach has been applied in the RUREMPLO project (Terluin et al., 1999a).
Usefulness and hypothesis for further research

The mixed endogenous/exogenous approach, which sees rural development as a mesh of internal and external networks, reflects the current situation whereby rural regions are involved in a wide range of internal and external relationships. Besides, in a world governed by networks, the recasting of the analysis of economic development into an analysis of networks makes the approach very attractive. Finally, the approach allows for both general and very detailed analyses of the networks. A hypothesis for further research in this study - given the availability of labour and capital - can be expressed as follows: ‘An active role of local actors in internal and external networks stimulates employment growth’.

3.4.10 Illeris’ inductive theory of regional development

Positioning of the theory

Illeris’ theory (1993) has been put forward in the debate of regional economics, and belongs to the group of territorial innovation models. His theory also includes elements of political sciences and sociology. According to Illeris, his theory fits into broader notions on contemporary societal changes, that can be indicated in terms of service, information or knowledge society.

Problem orientation (given the availability of capital and labour)

Illeris’ theory is inductively constructed by means of a thorough analysis of population growth from the 1970s in NUTS3 regions in 18 West European countries. He takes population growth as proxy for economic development as he supposes a parallel in geographical development between population and employment. His analysis shows a mosaic-like pattern of dynamic and declining regions in all parts of Europe, without a core/periphery polarization. Illeris seeks to answer the key question: how can the regional disparities in economic performance be explained?

Level of analysis

The geographical units in Illeris’ theory are commuting areas, proxied by NUTS3 regions in the EU, with an average of 0.5 million inhabitants, such as English counties, French départements, and Italian and Spanish provinces (Illeris, 1993:114).

Notion of economic development

Economic development refers to employment growth, resulting from expanding sectors in the regional economy.

Description of premises and mechanism

In Illeris’ theory, two elements contribute to the explanation of economic development of regions:

1. The structure of the local economy, i.e. its composition in terms of growing and declining sectors influences its total development. So regions with a high share of expanding sectors perform well and regions with a high share of declining sectors stagnate.

However, it appears that a declining sector in the one region is not necessarily a declining
sector in another region. For example, the textile industry is generally a sunset industry in Western Europe, but in some regions it still flourishes. So the question can be raised as to why firms in some regions are more competitive and develop better than firms in other regions. This brings us to the second and decisive element of the theory:

The good or poor performance of sectors in different regions is largely determined by the particular local conditions for the sectors. These local conditions mainly refer to political conditions, physical and soft infrastructure, physical planning, a pleasant and vibrant physical and social environment, availability of people with adequate skills, attributes like the innovation-mindedness and creativity of the labour force, population density and agglomeration. These local conditions do not only affect the performance of sectors inside the region, but may also contribute to attracting inward investments and building interregional networks.

**Development pattern**

The development pattern refers to the sectoral composition of regional employment. This consists of a dynamism of expanding and declining sectors. Illeris (1993:126) illustrates this as follows: ‘From decade to decade, new sectors enter in a phase of expansion. In the 1950s, the car industry was a star performer, while in the 1970s it was public services. Both have been stagnating in the 1980s, when producer services showed the highest growth rate.’

**Development strategy**

The recommended development strategy concentrates on affecting the local conditions. As these are a complicated and unique whole in each region, local and regional governments are best suited to analyze the problems and opportunities in their region and to implement a development strategy based on this analysis.

**Empirical application or testing**

The first element of Illeris’ theory is based on a quantitative analysis in a large number of EU regions; the second element on literature review.

**Usefulness and hypothesis for further research**

Illeris’ theory links the sectoral economic structure to local conditions, and is based on regions. As such, it merits further analysis in our study. Due to the emphasis on competitiveness (growing and declining sectors) and local conditions, there is a close relationship with Porter’s theory on the competitiveness of nations. A disadvantage is that due to the holistic approach, the impact of individual factors on employment growth cannot be determined. A hypothesis for further research in this study - given the availability of labour and capital - can be expressed as follows: ‘A strong set of local conditions stimulates employment growth’.

**3.5 Concluding remarks**

In this chapter the focus was on identifying theories that can be used to explain economic development in rural regions in advanced countries. For this purpose, we examined the debates in regional economics and the field of rural studies. Although the debates are
confined to rather closed circles of journals, there seems to be some overlap in theoretical conceptualization, which mainly tends to have a one-way direction: from the debate on regional economics to that on economic development in rural studies.

**Four groups of theories**

Our literature research yielded a large number of theories, which we classified into four groups, depending on the factors in the production function: traditional models, pure agglomeration models, local milieu models and territorial innovation models. The sequence of these groups is such that the factors in the production function increase in complexity. In the group of traditional models, output is assumed to be a function of labour and capital inputs. In the second distinguished group of pure agglomeration models, output depends on the availability of capital and labour and external effects or scale economies, which may arise due to a concentration of labour and capital in a specific location. In the theories in the group of local milieu models, various factors in the local milieu, such as skills of the labour force, technical and organizational know-how, and social and institutional structures, are supposed to affect the revenues from the input of capital and labour. Finally, the theories positioned within the group of territorial innovation models mainly distinguish themselves from the group of the local milieu models in the sense that the former assume that – apart from labour, capital and local milieu factors - the diffusion of innovations is also an important engine behind economic growth. To a certain degree, these four groups reflect a kind of chronological sequence: the traditional models were prevalent in the 1950s, the pure agglomeration models in the 1960s, the local milieu models in the 1970s, and the territorial innovation models have dominated since the 1980s.

**Selected theories for further research**

From the relatively large number of theories put forward in the debates in regional economics and rural studies, we have selected ten theories for further research (Fig. 3.8). In order to cover a wide range of viewpoints on economic development, we have selected three or four theories from each distinguished group, except for the traditional models which were excluded from further consideration due to their fairly restrictive premises and the fact that its decisive production factors of labour and capital are also covered by the other three groups of theories. From each of the selected theories, we have derived a hypothesis, which will be explored further in the next chapters. These hypotheses consist of a relationship between events in a form of: if X then Y. Essentially, they can also be considered as a kind of summary of a theory. It can be seen that the theories involve a wide range of factors to stimulate employment growth, given the availability of labour and capital. These issues include, for example, transport costs, cumulation of wealth, exploitation of immobile resources and self-help capacity. In this sense, the theories are rather comprehensive. It can also be seen from the hypotheses that some theories are closely related, for example, the community-led rural development theory with the mixed exogenous/endogenous approach and Porter’s theory on the competitive advantage of nations with Illeris’ inductive theory of regional development.
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</tr>
<tr>
<td>Illeris’ inductive theory of regional development</td>
<td>RE</td>
<td>L,K, LM, I</td>
<td>A strong set of local conditions stimulates employment growth</td>
</tr>
</tbody>
</table>

a) RE: regional economics; RS: rural studies; b) L: labour; K: capital; AE: agglomeration effects, due to external effects or scale economies; LM: local milieu, which includes factors like space, human capital, technology, networks, trust, culture and policies; I: innovation.

NOTES

1 Unless otherwise indicated, this discussion is based on Molle and Cappelin (1988), Healy and Ilbery (1990), Malecki (1991), Camagni (1992), Lambooy et al. (1997) and Rijswick (1997).
2 This section is based on Healy and Ilbery, 1990:305, Lambooy et al., 1997:87-9 and Rijswick, 1997:71-4.