



Theories on Regional Economic Growth and Development: Usefulness for Policy Makers

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Themes treated in the lecture

Birth and definition of regional economics

Theories of local development and growth based on different concepts of space:

- Physical-metric space
- Uniform-abstract space
- Diversified-relational space
- Diversified-stylized space

Policy implications for each theory



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Birth and definition of regional economics



Birth of regional economics

1954: *Location and Space Economy* by Walter Isard

Reasons for the late birth:

- time analysed in economics: more important than space;
- an additional variable like space complicates the conceptual framework;
- assumptions of constant returns and perfect competition to be abandoned.



Definition of regional economics

Regional economics is NOT the study of the economic dynamics at the level of administrative regions.

Regional economics is that part of economics that inserts a “space” dimension in the study of market mechanisms.

Like the role of space in the way in which:

- prices are fixed,
- productive activities develop,
- economic growth develops, etc..



Location theory: physical-metric space

Aim: explanation of the reasons for the distribution of activities over space.

In particular, which are the factors explaining:

- the location of single economic activities;
- the allocation of parts of territories to specific activities;
- the distribution of activities over space.

The concept of **space** is that of **pure physical distance**, expressed through a single variable: transport costs.



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The 1950s and 1960s

Regional growth theories
Uniform-abstract space



Regional growth theories

Uniform-abstract space

Aim: explanation of economic dynamics in sub-national areas.

Regional growth theories, that explain an aggregate growth rate, and not the tangible and intangible elements that constitute development patterns.

Features: traditional macroeconomic theories.

Specific aims

These theories explain why an administrative region grows more than another in terms on GDP.

Pure economic approach. Reasons are typically looked for in:

- the capacity of exporting, thus creating employment and production;
- the allocation of production factors and their efficiency, thus creating well being for individuals.

Differences among theories

Differences in the concept of growth:

- 1) Growth = increase in employment
 - short term growth
 - demand approach

- 2) Growth = increase of individual well-being
 - long term growth
 - supply approach

Concept of space in regional growth theories

Uniform-abstract space, abstract and discrete.

Geographical space is divided into “regions”, i.e.

- geographical units limited in terms of physical size,
- generally represented by administrative units
- considered to be homogenous and uniform within its territory.

Methodological approaches in these theories

These theories are formalised, explaining growth through cause-effect relationships among economic variables.

- change in GDP = $f(\text{change in } L, K, L)$
- change in GDP = $f(\text{change in Export})$



Export-led theory

Importance of specialisation in one sector, which exports

If the sector increases its exports, production increases and therefore employment.

Yes, but...

If there is availability of production capacity and employment.



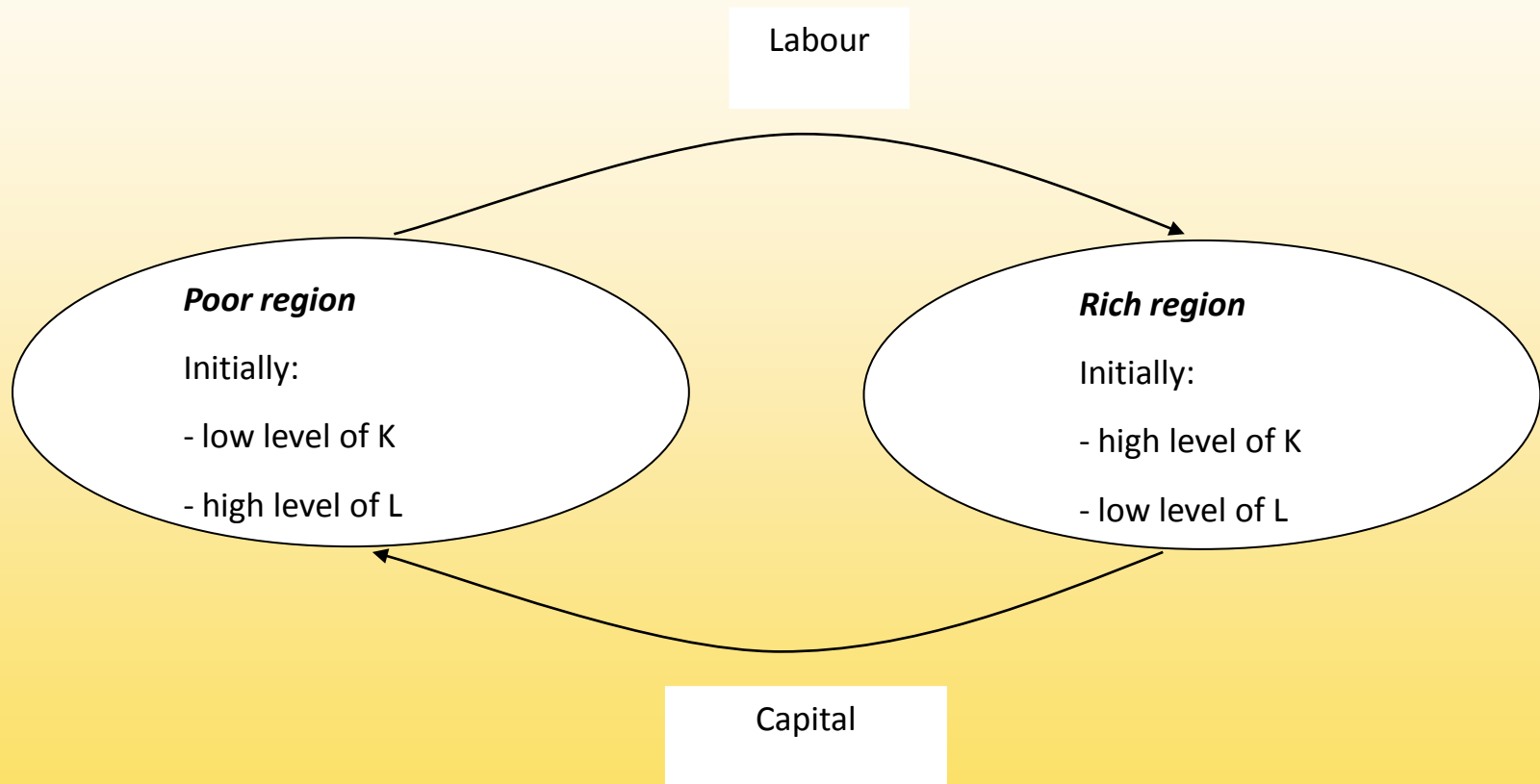
Neoclassical growth theory

Importance of an efficient allocation of production factors.

Production factors move in those regions where remunerations are higher, i.e. where they are more efficient.

Their efficiency increases individual well-being.

Neoclassical growth theory



Policy implications for growth

Increase in the export capacity.

Yes, but if there is the possibility of increasing production capacity, i.e. in front of unemployment, unutilised physical capital;

No policy intervention, because the market is the best allocator of resources.

Yes, but

- labour and capital differ in terms of quality;
- the market functions in presence of no imperfection.



Policy examples

Incentives to most externally open sectors.

Example: in Italy, incentives to the car sector, so to expand car production and employment in this sector.

This policy is a demand driven policy, even used in this period of crisis.



Advantages and disadvantages in the definition of uniform-abstract space

Advantages:

Possibility to use macroeconomic models that already existed in order to interpret local growth.

Disadvantages:

Impossibility to consider any mechanism of intra-regional agglomeration economies, thus forgetting whatever it was put forward in location theory, like the importance of physical proximity in growth mechanisms.

Space is a container of growth, with no role in economic trajectories.



Growth pole theory: a first attempt to move out of the macroeconomic approach

Importance of the presence of a large firm (industrie motrice) to develop a “pôle de croissance”, through input-output linkages

Policy implications: incentives for the creation of an industrie motrice.

History tells us that some cautiousness is needed.

Policies developed in the sixties

Incentives for large firms' creation in Southern Italy and Northern Great Britain:

- Petrolchemical pole near Siracusa (Sicily);
- Siderurgie à Taranto (Puglia)

Failure: 20.000 new jobs created and 40.000 destroyed!

Limits of all these theories

Unable to interpret some clear phenomena that occurred in a certain period of time.

Middle of the seventies:

- crisis of large firms and of the industrial areas (export oriented theory and growth pole theory not useful);
- inexistence of population and capital migrations (factor productivity allocation theory not useful).

Success of NEC (North-Eastern and Central) and the “Third Italy” miracle.



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The 1970s and 1980s

***Regional development theory
Diversified-relational space***



Regional development theory

Diversified-relational space

Aim: explanation of development in local areas.

These are development theories, interested in explaining tangible and intangible elements influencing development trajectories.

Features: microeconomic and micro-behavioural theories.



Theories of this kind (1970s onward)

Industrial districts (1970s onward)

Milieux innovateurs (1980s onward)

Learning regions (1990s onward)

Role of the city in regional development (2000s onward)

The concept of space in local development theories

Diversified-relational space:

- diversified since it allows to have polarities on which development insists
- relational since local, stable and long term relations have a role in explaining **development**.



From regional growth to local development

Growth = change in economic (tangible) elements represented by vectors of economic variables. Quantitative in nature.

Development = change in socio-economic (tangible and intangible!) elements that explain economic dynamics. Qualitative in nature.



Advantages and disadvantages in the definition of diversified-relational space

Advantages:

We are able to have in regional development theories one of the main concepts of location theories, that of agglomeration.

Space is therefore defined as an **element generating growth**, that to the important feed-back and synergic mechanisms that develop at the local level.

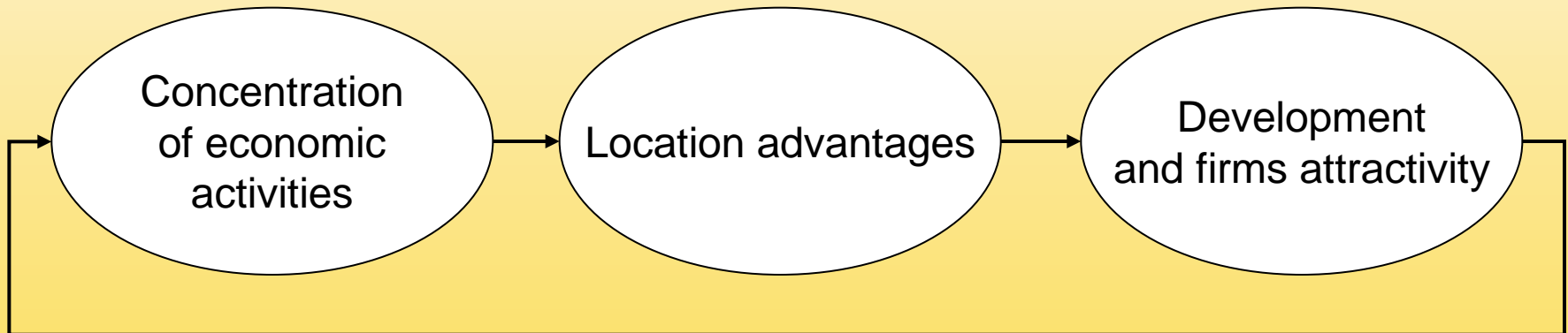
Disadvantages:

No synthetic capacity as in regional growth theories.

Consequences of diversified-relational space

Space is no longer a physical and administrative space; it becomes a more non-material space.

Economic development can take place also thanks to a more efficient spatial organisation of production.



Space becomes territory!

Different conceptualisation of growth among theories

Differences in the conceptualisation of growth:

- 1) **Growth** = increase in employment
short term growth demand approach

- 2) **Growth** = increase of individual well-being
long term growth
supply approach

- 3) **Growth** = long term competitiveness

Industrial districts

“a socio-economic unit characterised by the active co-presence of a community of people and a population of industrial companies within a localised and well defined territorial area”

(Marshall, 1920; Becattini, 1979)

- **Division of labour** within the same production process among small producers
- **Small firms specialised** in the production of capital goods, purchasing of materials and distribution of products for the same industry
- **“Industrial atmosphere”**: shared culture and sociological context that facilitate the circulation of ideas and knowledge



Essential characteristics of a Marshallian industrial district

1. Spatial Proximity
2. Socio-economic and Cultural Proximity
3. Concentration of SMEs
4. Industrial specialization



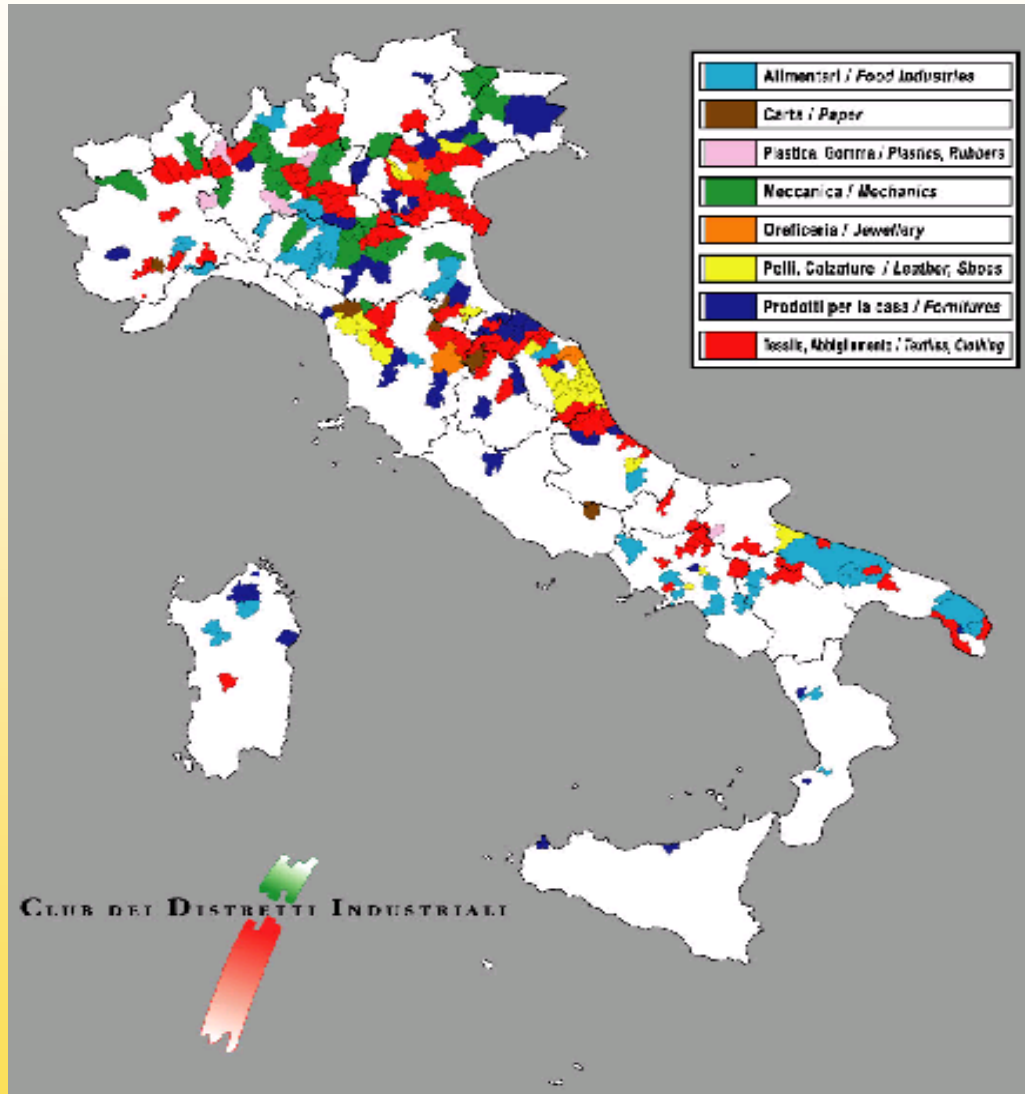
Theoretical advantages from the presence of a Marshallian industrial district

1. Reduction of **production costs**
2. Reduction of **transaction costs**
3. Increased **efficiency** in the use of productive factors
4. Increase of **innovative capability** (dynamic efficiency)

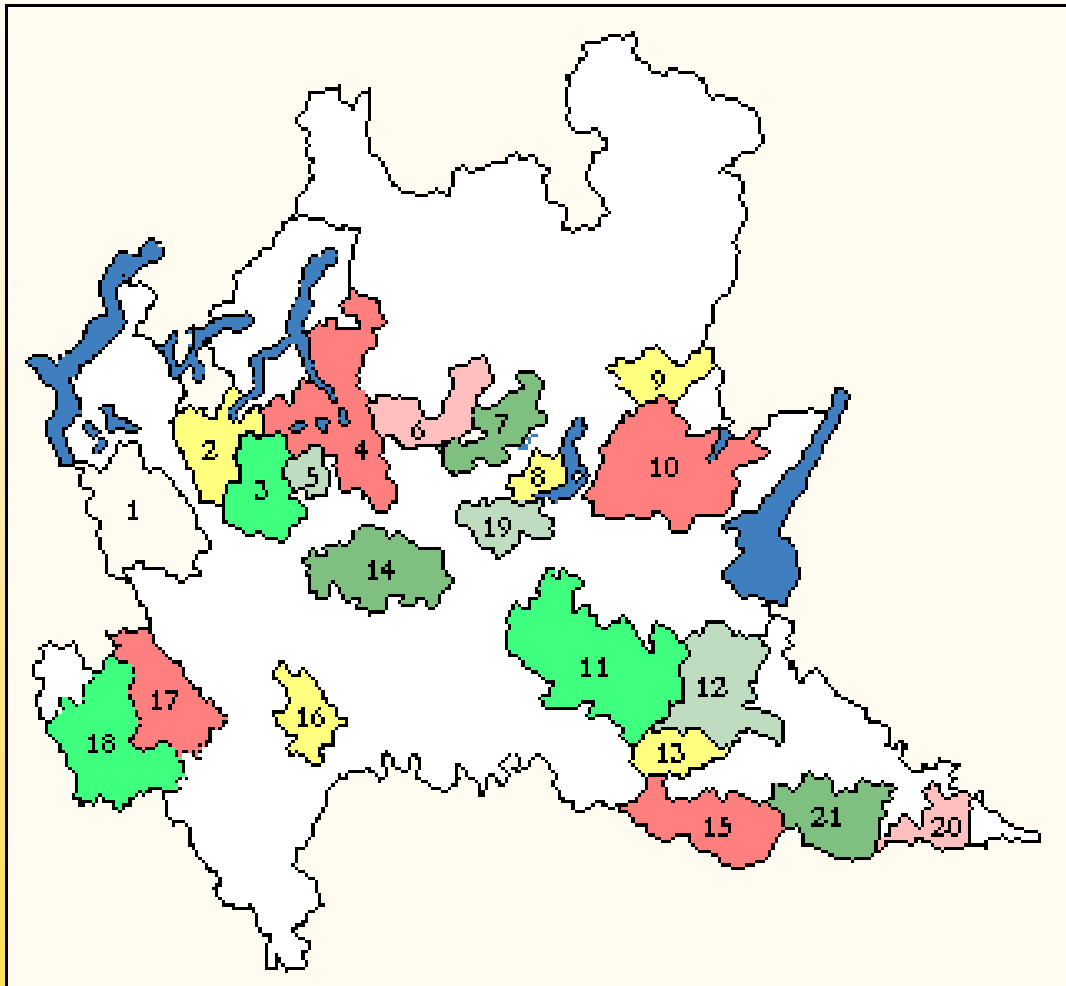


<i>Genetic conditions (sources)</i>	<i>Spatial proximity</i>	<i>Social and cultural proximity</i>	<i>Concentration of small firms</i>	<i>Industrial specialization</i>
<i>Advantages (effects)</i>				
<i>Reduction of production costs</i>	Lower transport costs for intermediate goods	System of local agents Recourse to external labour (home work) Outsourcing of production phases	Production flexibility	Availability of skilled labour Inter-firm division of labour
<i>Reduction of transaction costs</i>	Labour demand/supply match Broad local market upstream and downstream	Networks of interpersonal relations System of shared rules and institutions Common code of behaviour Sense of belonging Explicit capacity for inter-actor cooperation Informal contracts	Flexible, non-bureaucratized relationships among firms	Adequate technical knowledge for choice of suppliers
<i>Increase in the efficiency of the production factors</i>	Existence of a critical mass for specialized and infrastructural services Broad market for specialized inputs	Widespread industrial culture Mobility of tacit information Widespread entrepreneurial expertise	Flexibility in the quantity and quality of inputs to the production process	Information services for specialization sectors
<i>Increase in innovative capacity (dynamic efficiency)</i>	Localized accumulation of knowledge	Socialization to the risk associated with innovative activity Accumulation of shared knowledge	Competition-driven stimulus to innovation	Accumulation of specific knowledge

Marshallian industrial districts in Italy



Marshallian industrial districts in Lombardy



1	Textile, apparel (Sempione)
2	Silk (Como)
3	Wood, furniture (Brianza)
4	Metalworking (Lecco)
5	Mechanical (Brianza)
6	Mechanical (Valbrembana)
7	Textile, apparel (Valseriana)
8	Rubber gaskets (Sebino, BG)
9	Metallurgy (Camuno Sebino, BG)
10	Metal products (Valtrompia - Valsabbia)
11	Textile, apparel (Brescia)
12	Socks, apparel (Castelgoffredo)
13	Toys (Canneto sull'Oglio)
14	Metalworking (Trevigliese)
15	Wood, furniture (Casalasco Viadenese)
16	Mechanical (Belgioioso)
17	Footwear (Vigevanese)
18	Apparel, jewellery (Lomellina)
19	Textile and textile machines (Palazzo sull'Oglio)
20	Textile, knitwear (Oltrepo)
21	Metal products, agricultural machines (Basso Mantovano)



Limits of the industrial district theory

Specialisation not only of SMEs.

Not only endogenous local but also macroeconomic elements: the success of the industrial districts in the seventies (and not only) was due to favourable macroeconomic conditions.

Example: devaluation of the Italian lira in 1992 (breaking the monetary exchange agreements).
Advantages to industrial sectors.



Policy implications

The endogenous elements that explain the success of the industrial districts are **difficult to be replicated** elsewhere through policy interventions.

Not pure physical clusters of SMEs.

In Italy: a law for funds devoted to industrial districts → all local areas became immediately industrial districts!

Attention to cooperation and relational aspects: non-material elements explain growth!



L'impasse of the 1990s

Either a regional economy as a “pure and exact economic theory, without agglomeration economies”.

Or regional economics as an applied theory, comprehensive of agglomeration economies.

(Von Boventer, 1974)



Possibilities to overcome the impasse

Advanced mathematical instruments, and

Advanced formalised economic models where assumptions of perfect competition is relaxed (Dixit & Stiglitz, 1977).



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The 1990s and 2000s

***Local growth theory
Diversified-stylized space***

Local growth theory

Diversified-stylized space

Aim: explanation of processes of local growth.

Back to growth theories, with the addition of economies of agglomeration

Features: macroeconomic and dynamic theories



The concept of space in local growth theories

Diversified-stylised space:

- diversified since it allows the existence of polarities where growth insists
- stylized since polarities are only physical; they are points in space

We go back to growth approaches! Formalised mathematical approaches.



Advantages and disadvantages of local growth theories

Advantages:

Agglomeration economies explain growth again.

Disadvantages:

Space means only physical proximity. Back to the concept of space.



Theories of local growth

- **Endogenous growth theories**
- **New Economic Geography**

Little policy implications from this approach!



Endogenous growth theories

Aim:

To identify the conditions *endogenous* to the productive system which ensure long-term positive growth.

Local growth is made to depend solely on increasing returns to productive resources (individual or in aggregate).

Human capital accumulation.

New Economic Geography: Innovative Features

The **first innovative feature** of these more formalized theories : they enable elegant growth models of a strictly economic nature to include agglomeration economies, in the form of increasing returns, as determinants of local growth.

The **second innovative feature** is their ability

- to escape the mechanicism of the formalized models which preceded them
- to introduce elements of uncertainty into both growth trajectories and the final equilibrium towards which the development path tends.

Similarities with Local Development Theories

Similarities:

They pursue the same goal of identifying

- the elements which determine long-period competitiveness, and
- the conditions under which an area can acquire and maintain a role in the international division of labour.

Space is diversified, and active in explaining growth.



Differences with Local Development Theories

Differences:

- 1) Formalized, macroeconomic and aggregate nature of the theories, in sharp contrast to the micro-territorial and micro-behavioural approach taken by the models in the previous approaches.
- 2) The approaches envisage the existence of polarities in space where development takes place, diversifying the level and rate of income growth even among areas of the same region.

Although diversified, space is now stylized into points devoid of any territorial dimension.

Differences with Local Development Theories

Differences:

- 3) Localized technological externalities do not exist in this space;
 - nor does a set of tangible and intangible factors which may act upon firms' productivity and innovative capacity because of proximity and reduced transaction costs;
 - nor a system of economic and social relations constituting the relational or social capital of a certain geographical space.



Conclusions

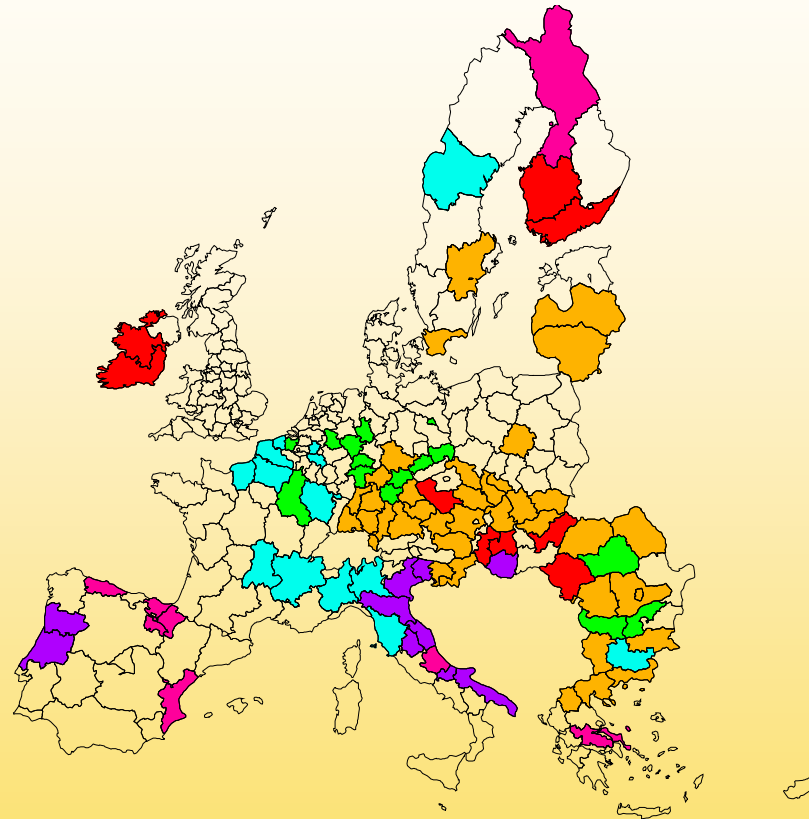
Conclusions from the empirical point of view

The capacity of each theory to explain regional convergence-divergence trends and regional development is limited to specific aspects.

Cautiousness in using theories for **policy** purposes.

One has to know the **limits** of each theory to use it for **normative** interventions.

European vulnerable regions to globalisation trends



- The six Patterns of Growth
- virtuous cycle
 - restructuring
 - dropping-out
 - de-industrialization
 - industrial conservatism
 - sheltered development

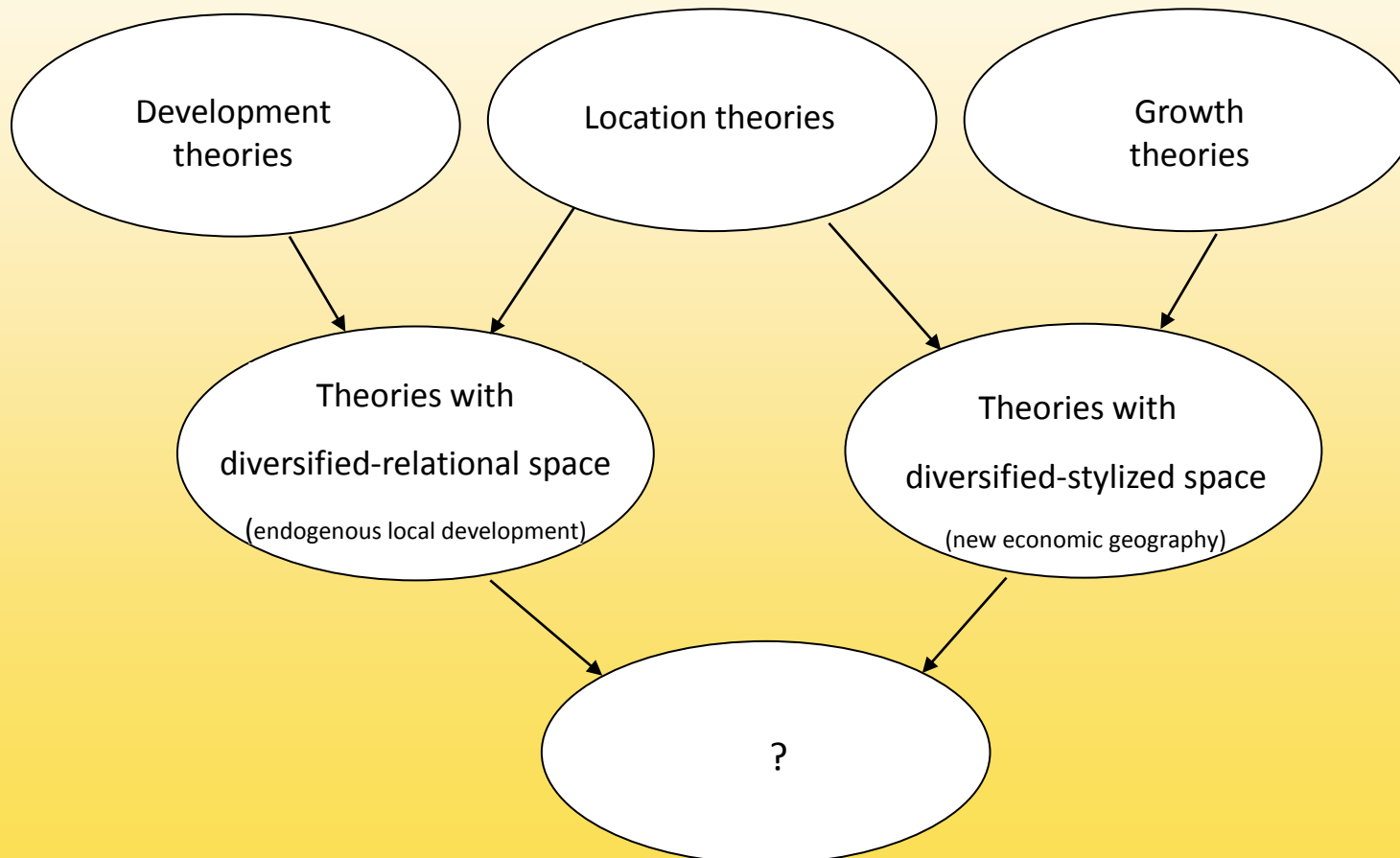


Reasons for the good economic performance: empirical results

- Presence of **high private functions**;
- Relatively good performance of “**open sectors**”;
- Relatively high share of **human resource** in science and technology;
- **Structural funds**.

Conclusions from the theoretical point of view

We have assisted to a **convergence** of different and important blocks of theories.





Conclusions from the theoretical point of view

In order to increase our understanding of local growth mechanisms it is important to find an interpretative macroeconomic regional growth model strongly based on **territorial** microfoundations

How?

To the young generation of regional scientists the reply!



***Thank you very much for your
attention!***