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*The mainstream approach of international trade (Smith, Ricardo, Heckscher- Ohlin etc.) envisages the national economy as an heterogeneous space of resources and factors and the competitiveness depends upon right chosen industrial and trade policies . This approach centres to the State, the nominal holder of power, but takes little account of the Company, the actual holder of the economic power. At the limit State is considered a large company where decisions are taken centrally and can be implemented directly and fully. The paper aims to differentiate between the virtual advantages of national economies and the real factors of growth and competitiveness in the globalization era. In this respect a new approach is imperative, one that emphasizes the structures that promote the competitive advantages (cf. M. Porter) of a nation. The major companies and their surrounding networks should be seen as poles of growth (cf. Fr. Perroux) which promote a specific economic area. Gravity models can serve to analyze their role in the economic integration process through efficient structures.*

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The paper intends to make a distinction between the virtual advantages of a national economy (that is those perceived and static) and its real advantages (that is those capitalised, dynamic). In this view, it is required a new approach – which is imperative in the conditions of globalization – the one that emphasises the structures – “the growth poles” – which promotes the competitive advantages of a nation. The gravitational models may serve to the analysis of their role, in the process of integrating the economic spaces through performant structures.

**1. Competitiveness – between concept and slogan**

Paul Krugman considers the notion of competitiveness a dangerous obsession<sup>3</sup>. Nations do not compete one against the other, like the corporations (the author refers here to the “world’s leading nations” and to the “big corporations”). That is why, “the doctrine of competitiveness is flatly wrong”.

The statement is shocking: it seems to invalidate an entire direction of economic thinking and political action. In fact, it is about a necessary distinction operated above concerning the notion of competitiveness: that between the concept and the slogan.

According to a well spread and easily accessible definition, competitiveness is a comparative concept of the ability and performance of a firm, sub-sector or country to sell and supply goods and/or services in a given market<sup>4</sup>. Therefore, competitiveness means:

- an approach in comparative, relative terms: a country is or not comparative with another market in a certain field, on a certain market
- competitiveness is based on natural factors (resources) and artificial factors (institutions, competences)

<sup>3</sup> Krugman, Paul, Competitiveness: A Dangerous Obsession, Foreign Affairs, March/April, 1994

<sup>4</sup> Cf. Wikipedia

- competitiveness can be achieved through industrial policies (the role of the state).

National economies compete one against the other just like big corporations only when they belong to an authoritarian state, in which the macroeconomic decision is made voluntarily, as in the case of a company. Thus, the national economies represent spaces in which the corporations competing among them both on the domestic market as well as on the international market develop.

The notion of competitiveness becomes a slogan when it is used to establish the objectives of economic policy in order to mobilise the resources, to make projections – often unrealistic – regarding the development of the national economy. Such an approach is most of the times counterproductive due to the fact that it tends to substitute to the reality a plan (usually, a voluntary plan), to cover the problems of the present with the promise of a “bright” future.

In these conditions, is it worth speaking about national competitiveness? It is, to the extent to which the state is an important player of the economic space and through its economic, industrial politics that it promotes it can stimulate the competitiveness of certain firms (or sectors).

The preoccupation with competitiveness should be thus in connection only with the field of economic politics. Yet, in the evolution of the international trade theory, the problem of competitiveness has been constantly, directly or indirectly, brought up.

## **2. International trade theory and competitiveness**

The classical approach of international trade (Smith, Ricardo, Heckscher Ohlin etc) has as premise the economic defining of the nation state as a non-homogeneous space of resources/factors, and the problem is reduced to their effective use. Thus, the state is placed in the centre, the nominal holder of the power, but too little is taken into consideration the firm, the holder of the economic power. At the limit, the state is considered a big firm where the decisions are made in a centralised manner and can be implemented directly and integrally.

### **2.1. Productivity**

**2.1.1** In a determined/closed economic space [the national economy] the efficiency of resources [labour] use is made through the labour division [that is specialisation]; in the case of external openness [international economy] the competitiveness, that is the efficiency of the participation to international exchanges, is made through specialisation in the fields with a superior productivity as compared to the foreign countries (absolute advantage theory).

To sum up, this means that the countries are characterised by different levels of labour productivity; each country has to get specialised in the fields in which it has higher productivity; it will export products for which it has superior productivity and it will import products for which it has an absolute inferiority (lower productivity); in these conditions, the international trade is beneficial for these particular countries.

**2.1.2** It is not necessary of an absolute productivity in the specialisation field: a country can get specialised in the field/fields in which it has a lower/symmetrical inferiority, a higher superiority (**relative advantage theory**).

The main arguments: a country which has an absolute superiority in both fields, yet it must get specialised in the field in which it has comparative advantages, that is a relatively higher productivity; it will import goods in the field in which it has a relatively lower superiority; symmetrically, the other country will get specialised in the field in which it has a lower inferiority and it will import goods for which it has a higher inferiority; in this way, both countries will use their resources more efficiently; the international trade is positive sum-game.

More practical (theoretical also) problems are asked regarding this **theoretical model of the international specialisation (we do not refer to the standard critic: two countries, static character etc)**.

**i.** How can the differences of productiveness be explained? Are different economic fields equivalent from the point of view of their capacity to capitalize the resources?

No, says Romanian engineer and diplomat Mihail Manoilescu, who is one of the best known economists, in Romania and Latin America, without being taken too seriously by the *mainstream economics*.

Industry has a higher capacity to capitalize that agriculture (a higher intrinsic productivity): therefore, to specialise on industry means progress, on agriculture it means regress.

ii. How is practically achieved this orientation towards the fields presenting comparative advantages?

Naturally, through the action of the “market forces”. Corollary: the international trade, as soon as it appears, is advantageous for all the participants.

Against such an argument there were radical Marxist type theories – the imperialism and the international exploitation, approaches of the 70s and 80s left wing (Chr. Palloix) or tiermondist– the theory of unequal exchange (Samir Amin).

If *mainstream* blames the “market forces” for the structuring of the world economic space (the international division of labour etc.), which leads to the creation of the best world possible, as Voltaire’s *Candide* would say, *the heterodoxists* blame the (capitalist) state and the (capitalist) firm for the unbalanced manner in which the world economic circuit exists and works.

## 2.2. Factors

Another direction of thinking considers that, in the last instance, the endowment with resources (**theory of factor endowment**, or Heckscher- Ohlin) is determining for the international position of a country.

These are the main arguments of this theory: the specialisation model is determined by the differences in endowing with the productivity factors; a country exports goods which intensely use factors (resources) abundant in that particular country; the imports are made up of goods products with factors which are relatively rare in that particular country; the role of the state: the endowment with factors can be influenced by the governmental politics.

Two main observations are required: the national economy (or the national economic space) is considered a “warehouse” of resources – material, human etc – their capitalization being determined by the principles of economicity through the firms; the state has an active role in the economic life, being able to influence the endowment with factors and implicitly the international position (competitiveness) of that economy.

This emphasis of the role of the state in configuring the national economic space and in establishing (improving) the place in the international division of labour becomes a characteristic of what is called the **new international trade theory**: the specialisation and concentration of production leads to scale economies and to “learning effects”; these effects are striking in the high fixed price industries; the conditions of the world market lead to the affirmation of a reduced number of important competing firms; the role of the state becomes significant through governmental intervention; commercial policies etc.

In the middle of the last century, in the international trade theory a certain consensus was reached regarding the main players of the global scale economic development: the big firms and the nation states. But in the space defined on the two coordinates (“private”, “public”) a diversified range of conceptions appears, from those attributing a determining (exclusive) role to the firm (mainly, to trans-national corporations) to those considering that the states (mainly, the leading economies) have the decisive role.

### 2.3. Porter

An attempt of theoretical synthesis, but in the same time, an attempt to redefine the nation state in the global competition is done by M.E. Porter in the well-known work, published in the last decade of the last century<sup>5</sup>.

**The competitive advantage of nations** tries to analyse the reasons for which certain nations are performant in certain industries, using the “diamond” model.

This refers to the four interdependent dimensions of factors explaining the competitive position of a nation.

-The factor endowment: it is, on one side, about **basic factors** (those existing naturally in a country, such as natural resources, climate, geographical positioning, population) and **advanced factors** (those created in that country through investment processes such as communications, technology, research, highly qualified labour force, education).

According to Porter, the advanced factors are those being able to lead more to competitive advantages

-Demand: creates opportunities, consumers, gives an impulse to the innovation and quality increase

-Related industries: create groups of interconnected fields which are internationally competitive

-Corporation strategy, structure and competition: the corporation vision on long term is determining for competitiveness; the level of domestic competition increases the international competitiveness.

Porter states that the countries should export products from those industries in which all four components of the diamond are favourable and they should import in the fields in which the components are not favourable.

### 1. Growth poles

Big firms, as well as the networks they create, should be seen as **growth poles** capitalising a certain economic-national, regional, global space.

The collocation “growth poles” was introduced by the French economist Francois Perroux 60 years ago. “Growth does not appear everywhere at the same time; it becomes manifest at points or growth poles with variable intensity; it spreads through different channels, with variable terminal effects, on the entire economy<sup>6</sup>”.

Adopted subsequently by many authors and used in the economic strategies (especially in the regional development policies), this approach is not understood in a unitary manner as it is proved in literature, the respective notion has rather an intuitive character which also explains its adoption by the political decision instances. In other words, it is about an insufficiently conceptualised collocation. Intuitively, by growth poles are understood certain economic fields or groups of firms within sectors or branches with a capacity to promote the growth in a determined economic space (the national economy).

We mention, though, that for Perroux, the notion of economic space has an abstract character and it does not identify itself with a geographical area.

Yet, in practice, this notion has been used especially for certain areas, regions, cities, being one of the main concepts of the economic geography.

Perroux defines the growth pole as a structure (set) which has the capacity to induce the growth in another structure. From this approach it results<sup>7</sup>: 1) the pole is a concentration of productive elements; 2) the growth is propagated from a focal point, in other words it occurs as a diffusion of the growth and transmission effects (spill-over) from one pole to the environment; 3) due to

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5 Porter, M.E., *The Competitive Advantage of Nations*, Free Press, New York, 1990

6 Perroux, Francois, 1970: *Notes on the Concept of Growth Poles*, apud. translated by A. Gates and A.M. McDermott, *Regional Economics : Theory and Practice*, ed. David L. McKee, New York .

7 R. J. Barry Jones , *Routledge Encyclopedia of International Political Economy*, volume 2, 2001

the fact that big firms act like magnets, they need investments in order to achieve their role and ensure the regional growth; 4) in a developing region or country, a multinational company (having the role of growth pole) can act like a local company with the same favourable effects for the economy.

Perroux considers that the abstract economic space can be of three types: an economic plan; an area of power or influence concentration; a homogeneous aggregate. If he refuses the geographical positioning, he considers that an economic space can be defined voluntarily by an economic plan or it can be the result of a (natural?) concentration of resources and economic forces. In the last analysis, Perroux's theory substantiates the necessity to consciously intervene in order to create and promote the growth poles (let's not forget that one of the best works of the French author is *Techniques cantitative de la planification* and that the French researcher was the creator and the manager).

Perroux's theory has been specially used in the regional approaches – geographical spaces – and has been developed on the “cluster” network idea. Subsequently, this national approach entered the national and European politics under the shape too, relatively under the influence of ideology, of the development regions.

In the problem which interests us, we must establish which the spaces that can make the object of a competitiveness policy are; it can be, of course, about certain economic areas, an authoritatively administered region, but, in our opinion, about a modern, complex economy.

In the last analysis, what matters is the consequence of an approach or another in the plan of political action: which the determining factors of the orientations in business are, who plays a major role – the firm/state, how welfare is created etc.

## **2. The role of the gravitational models in economy**

The world is not flat, it has relief. The economic space is not homogeneous, but differentiated. Therefore the models taking into account the force centres have probably more explicative force. They are efficiently used in marketing; they are applied in the regional analysis. Yet, we believe that their potential is still not used as explicative models, and then eventually operational models.

The theory concerning the localization of the economic activities was tackled, in time, by many authors: Thomas More – wrote for the first time, in the 7<sup>th</sup> century, about the necessity to divide a place into districts, each district having a centre (a “square/market”); Turgot (the 18<sup>th</sup> century) established the fundamentals of the commercial localization theory, based on three principles (the principle of centrality, the principle of demographic threshold for the implantation of a sales point and the principle of purchases grouping); Weber A. drawn up, in the first years of the 20<sup>th</sup> century, a theory of industrial localization; Hotelling H., in 1930, developed a law for the optimal localization of the duopolies. .

The gravitational models were first suggested by Y. Tinbergen (at the beginning of the 60s). He identified three factors explaining the volume of the commercial fluxes between two countries, that is: the potential export offer from the exporting country, the factors connected to the potential total import demand from the importing country; the factors connected to the resistance to trade.

*The gravitational models* define utility functions for consumers, functions including, on one side, factors connected to localization and on the other side, preference factors.

Using the model developed by de David Huff (1964, 1966), we can evaluate the utility attributed to an exporting country, using the export potential of this country and the distance (the total cost of the logistic operations) to the importing potential.

Thus, the probability to import from a certain country is equal to the utility allotted to that country related to the total sum of utilities of the other exporting countries, considered as possible purchasing markets for the importer.

$$P_{ij} = \frac{U_{ij}}{\sum_{i=1}^n U_{ik}}$$

where :

$P_{ij}$  : probability that an importer  $i$  imports from country  $j$ ;

$n$  : total number of exporting countries

$U_{ik}$ : utility of exporting country  $i$  for importer  $j$

The utility of the exporting country can be defined depending on the distance and attraction of the exporting country, according to the formulae:

$$U_{ij} = S_j^\alpha \times D_{ij}^{-\beta}$$

where:

$S_j$  : attraction of exporting country  $j$

$D_{ij}$  : distance from exporting country  $j$  to importer  $i$ ;

$\alpha, \beta$  : parameters measuring the sensitivity of the importer to the attraction of the exporting country and the distance covered

The model can be written as:

$$P_{ij} = \frac{S_j^\alpha \times D_{ij}^{-\beta}}{\sum S_j^\alpha \times D_{ij}^{-\beta}}$$

Several critics have been addressed to the gravitational models applied in the analysis of foreign trade among which is the fact that the substantiation in the terms of economic science is showing a deficit (in the simplest approaches, it is about the simple adaptation of a defined model in the exact sciences), that a series of important variables for the international economic relations is ignored, as well as, especially, these models' preponderantly explicative character (and not operational).

Yet, the gravitational models allow the outline of a new vision on the relations among firms and states in the world economic space. They emphasise the structuring force of the leading companies – national economies, as well as their power to initiate and stimulate the growth in certain areas/regions of the world. They demonstrate the fact that the world economy does not represent a juxtaposition of national economies, that the world economic space is made up of dominant structures having the role to quicken or, in both cases, that to inhibit the national, regional or global development.

To sum up, a direction of research in the field of international trade can be constituted by the integration of this approach into the *mainstream conception* and, eventually, the attempt to build some operational models which should underlie the decision of economic politics at the national and/or regional level.

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