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Transition, integration and convergence - The case of Romania -

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AUREL IANCU

**TRANSITION, INTEGRATION AND
CONVERGENCE
- THE CASE OF ROMANIA -**



ACADEMIA ROMÂNĂ
INSTITUTUL NAȚIONAL DE CERCETĂRI ECONOMICE
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FOREWORD

This volume comprises several studies and papers published in the last decades. They have been selected and ranged so that to provide a minimum of coherence concerning the phases which Romania has crossed in her way to the advanced socio-economic system of European type: transition to the market economy, accession to the EU, the economic convergence in the three fundamental domains: institutions, real economy, and nominal economy. The readers may find in this volume a description of debates, difficulties and solutions adopted for building-up the market economy by a state being in a profound transformation from weak transition institutions towards hard democratic institutions.

Because the transition to the market economy and the association of Romania with the EU and then the integration presenting strategic political decisions, I have included in this work two studies devoted to the political forces – state and political parties – that elaborated and applied these strategic decisions underlining their structure, role and function and their transformation.

Integration into the EU of a country like Romania, which emerged from a different system comparing with the West-European one, has proved to be difficult and lasting many years because of the structural transformations. In five chapters I am referring to the essential characteristics of the integration process, such as: market liberalization, competitiveness of the local (national) firms on the national and EU markets, institutional reforms so that the institutions of candidate countries have to become compatible with those of the EU and finally the perspective assessment to find out the real and nominal convergence.

Putting into practice the EU competitiveness and cohesion principles, Romania has good prospects to close, in a reasonable time, the economic gap and to be admitted into the Euro Zone.

Although the real convergence of Romania with the EU requires higher growth rates for the former, a new approach is compulsory to take into consideration the environment quality, the natural resources and the equity between the present and the future generations as natural resource consumers. Just these problems have determined me to include in this volume the last two chapters which, on the one hand, try to prove the necessity of the economy growth harmonization with the environment evolution as well as the saving of the energy resources, and, on the other hand, to point out the main ways to be followed and instruments to be used.

2010

The Author

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1. TRANSITION AS AN ECONOMIC REFORM AND AN INSTITUTIONAL CHANGE PROCESS*

Following the downfall of communism a violent crisis has been triggered off in all the countries of Central and Eastern Europe. As expected, the phenomenon has offered numerous subjects for analyses and discussions. Yet, most of the approaches to date are in keeping with those thought currents which are attempting to come up with logical explanations and conclusions derived from the analysis of more or less pure economic processes, similar, in some degree, to the analyses conducted by the neoclassical school on discrepancies or crises taking place in developed countries' economies - the fall in production, inflation, unemployment, depressed standard of living.

Quite often, the explanations remain partial and do not seem persuasive enough. Moreover, they become misleading when compared with the Chinese economic reform, with its economic performance, given that this country - unlike the European countries - has adopted not only a gradual therapy, but also the socialist market economy solution.

Based on a brief analysis of postsocialist economic performance, we shall first refer in the following to some contradictory opinions on the tupes of economic reform, then moving on to a discussion of the institutional system viewed both in terms of the fractures generated by the transition to a market economy and in terms of replacing the void created with a coherent and efficient system¹.

* Published in *Romanian Economic Review*, Tome 40, No. 1, p. 21- 41, Bucharest, 1995.

This study is part of a more comprehensive work concerning *The Theory of Economic Policy* (Neoliberalism, interventionism, negotiated economy) elaborated under the PHARE program (Project ACE-63) at London School of Economics - Centre for Economic Performance.

¹ An approach to market institutions within East-European reforms with very brief assessments of economic theory's dimensions was made by Rey Koslowski in the article *Market Institutions, East European Reform, and Economic Theory* published in *Journal of Economic Issues*, vol. XXVI, no. 3, September 1992. Holger Schmieding, in the article *From Plan to Market: On the Nature of the Transition Crisis* published in *Weltwirtschaftliches Archiv, Review of World Economics*, Band 129, Heft 2, 1993, has made an interesting attempt to explain the main causes of economic crisis in terms and by using techniques pertaining to various economic currents-neoclassical, Keynesian, monetarist, and institutionalist. By means of comparison he highlighted the increased potential of

1.1. The results of implementing two types of reform

All ex-socialist European Countries, pledged to economic reforms, have recorded a dramatic deterioration of their main economic indicators. The drop in production in various countries, ranging between 17% and 50% in 1994 compared to 1989, is followed by a rise in unemployment (over 12% in Bulgaria, Poland, Hungary) and by real inflationary explosions over different years, in all the countries except the Czech Republic and Hungary. Important industries such as the constructions, rail transport, metallurgy, heavy engineering, machine tools, aircraft, defense, part of textiles, leather and apparel have experienced an unprecedented decline. Many enterprises in these fields, with up to date facilities have practically gone bankrupt².

Quite frequently, the economic decline is exclusively attributed to economic reforms and to their flawed implementation although, as known, the reform measures have coincided with a series of international events which, for some countries (especially for Romania), have had quite a strong impact³. Among these events mention should be made in particular of the breaking-up of COMECON market, the Gulf War, as well as the economic embargo imposed on Yugoslavia. Still, the main source of disturbance in Romania's economy as well as in other East-European countries' economies is the reforms which have generated deep-going shocks throughout the economy, without the prompt intervention by the state due to the lack of financial means and to the existence of an institutional vacuum of mechanisms and authority. At the same time, in contrast with the economic decline in the East-European countries, the Chinese reform variant is insistently given prominence in the economic literature as a result of its sustained remarkable economic performance, yet without mentioning the specific conditions⁴. In China, during the reform period 1978-1993, GDP's

institutionalism in explaining the causes of economic crisis in East-European countries on their road to transition towards a market economy.

² H. Schmieding, *Op., cit.*

³ Stanley Fischer, *Socialist Economy Reform: Lessons of the First Three Years*, "The American Economic Review", 83, 2, May 1993.

⁴Data concerning economic reform in China and its performance is from the following sources: K. Chen, G.H. Jefferson and I. Singh, *Lessons from China's Economic Reform*, in "Journal of Comparative Economics", 16, 2, 1992; Martin L. Weitzman and Chenggang Xu, *Vaguely Defined Cooperatives and Cooperative Culture: A Reconciliation of a Paradoxical Phenomenon* in "Transitional Economics," LSE, September, 1992 (mimeo); Stanley Fisher, *Op., cit.*; Zhang Wenwu,

average annual rate had been 8.7%. The economic takeoff during the reform has been prompted by agriculture due to the dismantling of agricultural communes and peasants' appropriation of land. Yet a spectacular rise has taken place in the sector which became the nucleus of reform - collectively owned enterprises in villages and towns. Between 1981-1990 the output in this sector rose at an average annual rate of 29%.

In the Chinese economy, the main competitor of the state industry has become not the private sector but the collectively owned enterprises in villages and towns. From a sector subsidiary to agriculture, it has assumed an autonomous importance in the economy, comprising various industrial branches. According to projection data, in the year 2000, upwards of 50% of industrial output will be obtained by collectively owned enterprises⁵.

The above-mentioned data represents the results of experimenting with two different models based on poles apart political options and with opposite results. The first model - replacement of socialist economy with that based on capitalist market relations, having democracy as a political support, experiment which led to a strong economic decline. The second model - adjusting the socialist economy, keeping the same political support - unique party control, experiment which conducted to economic growth.

In view of the differing economic performances, one may ask the following questions: 1. whether the Chinese model could be adopted, as a means for solving the crisis?; 2. which could be the adequate explanations for the economic crisis in the East-European countries?

In order to find the answer to the first question, we should analyse whether the Chinese-type models could be transplanted in these countries. We consider that a suitable answer could be obtained by mentioning the following characteristics of the Chinese reform highlighted by S. Fischer: (1) The prevailing leading sector of the economy is represented by low-tech agriculture. (2) The Chinese reform

Achievements and Problems of China's Economic Reform: A Comparison with East-European Countries, Romanian-Chinese Symposium, Bucharest, 1994, The National Institute of Economic Research.

⁵ During the 13 years of reform, state sector's share in the overall industrial production dropped from 78% in 1978 to 53% in 1991 to the benefit of collectively owned enterprises. For details see: Stanley Fischer, Op. cit.; Martin Weitzman, Chenggang Xu, Op. cit.

has started in agriculture, therefore in the prevailing sector of the country. Here the reform has been radical and swift, both by dismantling the agricultural communes, and by reintroducing the free market for farm produce belonging to individual peasants which remains after honouring all contractual obligations to the state. (3) Industrial development was bolstered by the setting up of new firms - collectively owned; reforms have been carried out in the state industry, particularly of a managerial type; (4) The macroeconomic control as well as the authoritarian political control were maintained even after the reform had been implemented⁶.

It is obvious that the economic crisis cannot be solved by using the Chinese model, as in Romania, like in the other East-European countries, the reforms go deeper and are more advanced, the economic structure is more complex as a result of the overall level of development and, in the first place, that of industry, and the function of communist party's authority in the state and in the economy has been completely abolished. In fact, economic reforms, more or less similar to the Chinese one, have been experimented with before 1989 in almost all East-European countries. It was found, however, that after some favourable economic results obtained during the first years of experimentation, the reforms were systematically abandoned, as they were beginning to subvert the authoritarian communist political power. Experience in these countries has proved the existence of a real incompatibility between the competitive market economy based on private ownership and the control over the economy exercised by the communist party-state⁷.

To the second question, about the economic crisis' causes, finding the answer is a more complicated affair, as even during academic debates we are witnessing two kinds of approaches: the first raises the problem of the pace of economic system's reform, as a whole. The second approach is the institutionalist one, taken in its modern sense. Both will be briefly discussed in the following.

⁶ Stanley Fischer. *Op. cit.*, p 132.

⁷ Alexander Eckstein (ed.), *Comparison of Economic Systems*, University of California Press, Berkeley, 1971; Gregory Grossman, *Economic Systems*, Prentice Hall, Inc. Englewood Cliffs, New Jersey, 1974; J. Montias, *The Structure of Economic Systems*, Yale University Press, New Haven, 1976; Morris Bornstein (ed.), *Comparative Economic Systems*, Irwin Inc., Boston. 1989; J. Kornai, *The Socialist System. The Political Economy of Communism*, Princeton University Press, Princeton, 1992.

1.2. The pace of reform dilemma

In the tactics and strategy to be followed for the implementation of change, the problem has arisen of choosing one of the two alternatives: shock therapy or gradual therapy, with their advantages and disadvantages. It is known that most of the East-European countries have chosen the first variant. As the negative results became obvious, the idea according to which the crisis was due to the adoption of shock therapy has been increasingly circulated. Using this argument as a basis, the conservative forces have unleashed a full-blown offensive aiming either at temporizing the transition, or at deflecting the changes towards Chinese-type forms⁸.

Ruling out the acceptance by Romania, as well as by the other European countries, of the Chinese model, given the specific of that country, let us briefly refer to the opinion regarding the temporization of reforms. The attempts made during the last two years (1993-1994) in Romania, Poland and other East-European countries at temporizing the reform or slowing it down, bringing up as main argument the need for social security and slowing the crisis, are not only contradicted by facts, but are logically wrong. They also signify a misunderstanding of economic and social processes by those who sustain this point of view.

Which were the consequences of reform temporization in Romania and other European countries in the areas of privatization, price liberalization, terminating the subsidization of unprofitable enterprises, currency convertibility, creation of market economy structures and adequate legislation?

In economic terms, the temporization meant a certain continuation of socialist economy processes, but without strict control from the state in its capacity as owner of the means of production, which has led to increased immobility of production factors and economic processes,

⁸*In all East-European countries, as a result of the economic crisis, communist parties have been resuscitated under various names and have included in their programs references to the strengthening of collective sectors, reintroduction of planning a.s.o. As the economic crisis is dragging on and the rate of unemployment goes up, they are gaining an increasing number of adherents. As to the forms and methods of resistance to economic reforms see, for example: K.E. Schenk, The Economic Policy Framework in Transition - Resistance to and Strategy for Change in Eastern Europe, in "Journal of Institutional and Theoretical Economics" (JITE), 148, 1992 (103-115); Branco Milanović, and Liberalization and Entrepreneurship, Dynamics Reform in Socialism and Capitalism, M.E. Sharpe, New York, 1989.*

transfer of values to nonperforming sectors at the expense of performing units, intensified run of values from the public to the private sector by the proliferation of corruption, consolidation of preoccupation of profit making not by bringing down costs and increasing production, but by rent seeking, proliferation of economic units' lack of liquidity having a chain reaction, the investment rate shrinking below the amortization rate, increased decapitalization of economic units, undue increase of taxation (induced by pressures on the budget), which discourages and even annihilates economic units' possibilities to invest, increased inflation.

It is quite obvious that given this picture, bringing to an end the decline in production realized in Romania, in 1993 and 1994, does not offset the negative economic effects, neither does it represent a normal and safe basis for obtaining a real economic stabilization. In the main, only the keeping of inflation in check and especially the relaunching of investments through market mechanisms and restructuring of economic units could indicate a sure sign of the start of a sustainable economic growth.

In social terms, the temporization of reform has meant an intensification of the two following effects: increased unemployment rate, as, on the one hand, many state-owned enterprises have decreased their activity owing to the cumbersome work mechanism, lack of financial and work discipline, of entrepreneurship, and on other hand, the private sector, not being encouraged to expand and, quite frequently, discriminated upon in its relations with the public sector, was neither able to exercise its job creation potential, nor its possibilities of increased efficiency.

A marked shrinkage of real wage level took place as a result either of a cutback in activity or of an increase in the inflation rate. The reduction of real income, together with a high rate of inflation, generates a significantly lower saving propensity of the population, which, on the one hand, narrows the possibilities of investment into the national economy, and on the other, stimulates the acquisition of goods as well as their hoarding in households, together with an overall drop in the purchasing power.

Politically and institutionally, the procrastination of reform had the following consequences:

- deepening of the contradiction between the new democratic mechanisms and political institutions and the old bureaucratic structures generated and protected by the state ownership and endowed with the

old centralist mentalities and behaviours, which put up resistance to the implementation of reform decisions and, in the first place, to those regarding privatization and decentralization;

- prolongation of the institutional vacuum which largely facilitates the arbitrariness in decisions at various levels and encourages abuses, profiteering, and corruption;

- increased confusion in political, juridical and economic relations among organizations, both horizontally and vertically, maintaining the diffusion and diminishing of responsibilities inside these relationships, which encourages nonobservance of contractual obligations, as well as the perpetuation of paternalist behavior by firms and population towards the state.

The temporization of reform institutionally maintains and feeds a state of uncertainty, lack of responsibility, and chaos, with significant losses of resources in the relations between economic agents, between firms and consumers, between state authorities and civil society, as well as between the state and various groups of interest. In economic terms, all these translate into very high additional transaction costs to be paid by individuals, as well as by the society as a whole.

The proponents of slowing down the reform are making at least two fundamental errors.

The first error consists in the fact that they are interpreting socio-economic processes only globally, not analitically and sequentially, for each element which is included in the economic system, taking into consideration the behaviour, evolution and interconditioning in time, with the aim of formulating adequate reform policies, for each problem (or system element), as well as for so-called packages of complementary reform policies sequentially arranged in the aggregate reform system.

The second error is the fact that they are particularly concerned with pure economic processes, neglecting or, at best, maintaining on a secondary plane the preoccupations of creating and putting into operation the new institutional system. They continue to solve the new problems created by the beginning of market economy with the help of the old economic institutions and levers pertaining to the totalitarian system or improvised institutions.

The best way of removing these errors consists in explaining, over the next two paragraphs, on the one hand, the logic of reform policies spread over time, which concerns the main elements of the economic system, and on the other hand, the logic of institutional system, as well

as the evaluation of the necessity of the effects and means of its restructuring.

1.3. Logic of reform policies spread over time

Each process and element component of the socio-economic system has its own manner of emergence and evolution and its own way of behaviour, influence and interrelationships within the system. There are processes and elements characterized by a great influence within the system, causing it heavy shocks when a certain change occurs. There are, too, some elements whose changes impact on the whole system, and others only on some parts or areas. At the same time, there are processes, which condition other processes, and the change of the former requires greater material and financial efforts than for the others.

In view of these characteristics, in the implementation of reform projects have emerged several large groups of elements and processes. Taking into consideration the time and conditioning criteria, it was agreed that the following elements or subsystems could be changed in a relatively short time: the political regime,⁹ legislative system,¹⁰ macroeconomic stabilization,¹¹ price and trade liberalization, elaboration of the rules concerning foreign investments, current accounts' convertibility, privatization of agriculture and of small-scale industry, initiation of large-scale industry privatization.

It cannot, however, be asserted that within the same sequence or relatively short period of time, it would be possible the establishment of an institutional system, creation of social insurance network, implementation of large-scale privatization, restructuring of large economic units with a view to their adjustment to the new market conditions and their profitability. Surely, only a concrete analysis, taking

⁹ In East-European countries the change of political regimes was made in less than a year (see. S. Fischer, *Op. cit.*, p. 391).

¹⁰ Douglas North considers that laws, as formal institutions, could be elaborated and applied over night, but quite a few informal institutions (customs, beliefs, etc.) are more difficult to change.

¹¹ In the majority of cases macroeconomic stabilization, consisting in attenuating or liquidating the vast economic disequilibria, represents a prerequisite for reforms and calls for a series of severe measures regarding the termination of subsidies to nonperforming companies, strict limitation of credits, depreciation of the exchange rate aimed at encouraging exports, restraining budgetary expenditures in order to reduce the budget deficit, wages' control.

into account the pros and cons and assessing the necessary financial resources could solve the problem.

Stressing that the road to reform followed by a country depends on the state of the economy, population's tolerance of the upheavals provoked by the reform processes and the political situation in the respective country, Fischer and Gelb offer, as an example, a synthesis of the main stages of reform, covering a 10 year period in several ex-socialist countries which have adopted reasonable reform policies.¹²

As shown in their diagram, the initial group of reform policies is a large one and includes macroeconomic stabilization, price reform, trade reform, small-scale privatization, new regulations on private investments, unemployment assistance, new taxation and its implementation, institutions and regulations.

The diagram also comprises several sectors in which reform measures operate with delay, that is only after a thorough preparation and after some conditions are met. We refer, in the first place, to the determination of wages which should not be left to the free play of the market, as the firms, which are still state-owned, cannot operate with correct price and management signals. Wages' determination can be left to the market play only in so far as firms' restructuring and privatization is implemented. Secondly, we have in mind the interest rate which should attract depositors and the correct evaluation firms' financial resources' costs. Interest rate determination can be left at the discretion of the free market only after the restructuring and consolidation of financial and banking system.¹³

The processes, whose reforms are of long duration, are those regarding the management, restructuring and privatization of large-scale industry, as well as the other institutional restructuring.

Naturally, the implementation of each of the mentioned policies has sent shock-waves throughout the economic system. The shocks were more intense, however, in cases when the reform policies had not been synchronized with one another and with the implementation measures; or had not been rationally spread over time, or the impact of implementing some economic policies had not been accurately evaluated, as well as in cases when supplementary expenditure were

¹² Stanley Fischer and A. Gelb, *The Process of Socialist Economic Transformation*, in "Journal of Economic Perspectives", 5, 4, 1991.

¹³ S. Fischer and Alan Gelb, Op. cit., p. 103.

imposed by the pressure exercised by social groups or by ruling party's electoral interests.

1.4. The institutional system and its main features

A factor less studied until now, yet seeming to constitute economic crisis' main explanation, is the institutional crisis.¹⁴

In order to come to this explanation we should first agree upon the main characteristics of institutions. Oliver Williamson - one of the founders of neoinstitutionalism - understands by *institutions* the economic organizations which are free to conclude contracts. Proceeding from the hypothesis of transaction costs being higher than zero, he interprets the emergence and development of economic organizations on purely objective economic terms. A firm, a corporation, an oligopoly, or monopoly is formed and operates for the purpose of reducing transaction costs.¹⁵ Following Ronald Coase¹⁶ explanation, and Williamson's developments, J. Wallis and D. North have elaborated a study regarding the measurement of transaction costs in the American economy for the period 1870-1970. They have found that the transaction costs are quite significant, in 1970 representing over 45% of the overall production costs (the transformation process plus transactional process up to the consumer).¹⁷ Gradually, the notion of institution has been enlarged. For instance, Svetozar Pejovich includes the following in the main capitalist institutions: 1) ownership rights over productive assets (means of production); 2) liberty to conclude contracts; 3) constitutional government or state with limited powers. These three categories of institutions set capitalism apart from other systems. They generate three essential elements: incentives with predictable specific

¹⁴ Some articles have been published in economic literature which draw attention to the role played by the institutional crisis. Among these, we mention: Rey Koslowski, *op. cit.*, Holger Schmieding, *op. cit.*

¹⁵ Oliver Williamson, *Markets and Hierarchies: Analysis and Antitrust Implications*, New York, Free Press, 1975; Idem, *The Economic Institutions of Capitalism*, New York, Free Press, 1985.

¹⁶ Ronald Coase, *The Nature of the Firm*, "Economica", 4, 1937; Idem *The Problem of Social Cost*, "Journal of Law and Economics", 19, 3, 1960.

¹⁷ J.J. Wallis and D.C. North, *Measuring the Transaction Sector in the American Economy 1870-1970*, in S. Engerman and R. Gallman, *Long Term Factors in American Economic Growth*, The University of Chicago Press, Chicago, 1986; D.C. North, *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, Cambridge, 1990.

effects on decision makers' behaviour, resource allocation and a flow of innovations.¹⁸

There are, however, more general connotations given to the concept of institution, particularly by those with a historical vision of the socio-economic system, for instance, Douglas North. According to North, institutions represent rules, effective enforcement of characteristic rules or constraints and norms of behaviour, which structure repeated human interaction.¹⁹ According to North, the notion of institution comprises the following basic characteristics:

1) Rules and constraints represent prescriptions known and used by number of participants to regulate interdependent repetitive relationships. Prescriptions refer to actions which are requested, prohibited or permitted;

2) Characteristic rules represent the possibility to govern relations among individuals and groups of individuals. If the rules are "voluntarily" accepted as customs or traditions, or are imposed and supervised by an external authority with a stimulative or a coercitive system to have an institutional role, these rules should be observed in social relations;

3) Rules and constraints should be understood, at least in principle, as applicable in repetitive and future situations. Individuals and groups (agents) expect that these rules and constraints should have a certain degree of stability. Otherwise, they will lose their institutional character.²⁰

According to North, institutions include formal rules used by man as instruments (the constitution, laws, explicit and implicit contracts etc.), informal constraints, conventions and codes of behaviour (customs, traditions, moral norms, etc;), as well as the characteristics of effectively imposing these constraints.²¹

In recent years, quite frequently a distinction is made between *institution* and *organization*. While the first defines the rules of the game or patterns rules' creation, evolution and consequences, the latter establishes the group's objectives within the set of rules in order to win the game by a

¹⁸ Svetozar Pejovich, *The Economics of Property Rights: Towards a Theory of Comparative Systems*, Kluwer Academic Publishers, Dordrecht, 1990.

¹⁹ Douglas North, *Institutions and Economic Growth: An Historical Instruction*, Cornell University Conference on the Role of Institution in Economic Development, Ithaca, New York, 1986, p. 8.

²⁰ *The characteristics have been highlighted by M. Nabi and J. Nugent*, The New Institutional Economics and Development, North Holland, Amsterdam, 1989, page 8.

²¹ D. North, Institutions, Ideology and Economic Performance, "The Cato Journal", vol. 11, no. 3, 1992.

combination of skill, strategy and coordination.²² Organizations represent groups of individuals united by common goals in order to attain certain objectives, according to institutional rules. They emerge and evolve in keeping with the rules imposed by the existing institutional system. Institutions, as organizations, include political groups (parties, government, parliament, etc.), economic groups (firms, cooperatives, trade unions, employers, etc.), social groups and educational ones (the church, school, university, clubs, etc.).

For the sake of simplification, we shall use in the following only one denomination - that of institution, which also includes the organization.

The analysis of institutional system's operation and evolution highlights several main features of this system which are interesting for our theme.

The first feature: the institutions system emerges as a result of the division of labour; its purpose has been and remains that of reducing uncertainty in the relationships within society by establishing a stable structure in human interactions by conventions, behaviour codes or norms for individuals and groups, by statutes, legislative system, and contracts among individuals and groups.

The second feature: changes in the institutional system are rather complicated as, according to North, they imply modifications of formal rules, informal constraints and of effective enforcement. The changes take place in a rather continuous and relatively smooth way than in a discontinuous manner. They do not take place in a completely discontinuous way, due to the fact that the institutional system also includes informal constraints represented by customs, traditions, behaviour codes, moral norms,²³ etc. which are persistent in time, unlike formal ones which can be changed relatively rapidly.

The third feature: to the above-mentioned rules of human behaviour, within exchanges of goods, the costs of human interactions are added, named transaction costs, and including value measuring costs of what is exchanged, rights protection costs, contractual rules and stipulations' enforcement costs. These measuring and enforcing costs constitute the sources of political, social and economic institutions. In conclusion: only by combining the theory regarding human behaviour rules within the

²² D. North, *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, 1990, p. 4-5.

²³ According to North, informal constraints form cultural constraints which connect the past with the present and, at the same time, offer the key to explaining the path of historical changes (D. North, Op. cit., p. 6)

exchanges of goods with the transaction costs theory it is possible to obtain an objective explanation, devoid of subjectivism, of the problems regarding the existence of institutions, their role in society, as well as the change of institutions in keeping with the change of socio-economic system.

Neoclassical economists, adopting the hypothesis of institutions' natural and free-of-charge existence by considering transaction costs as zero, have ruled out the need to include the problem of institutions into the economic analysis. For the economists who deal with the transition economy, the problem of institutions has assumed great importance and relevance. Unfortunately, the results of institutionalist research obtained by them are few and lack consistency, with the exception of those which tackle the role played by the state in the economy.

1.5. Internal logic of the socialist institutional system and the consequences of its break-up

While within the capitalist system the institutional system has spontaneously emerged and developed for several centuries, in the socialist countries the system of institutions was designed and built during a relatively short period, according to the socialist system's needs in keeping with the centralized command principle. The state power was a function of party's authority and the direction by law had been sacrificed each time - as stressed by Koslowski - with each dictate of party's line.²⁴

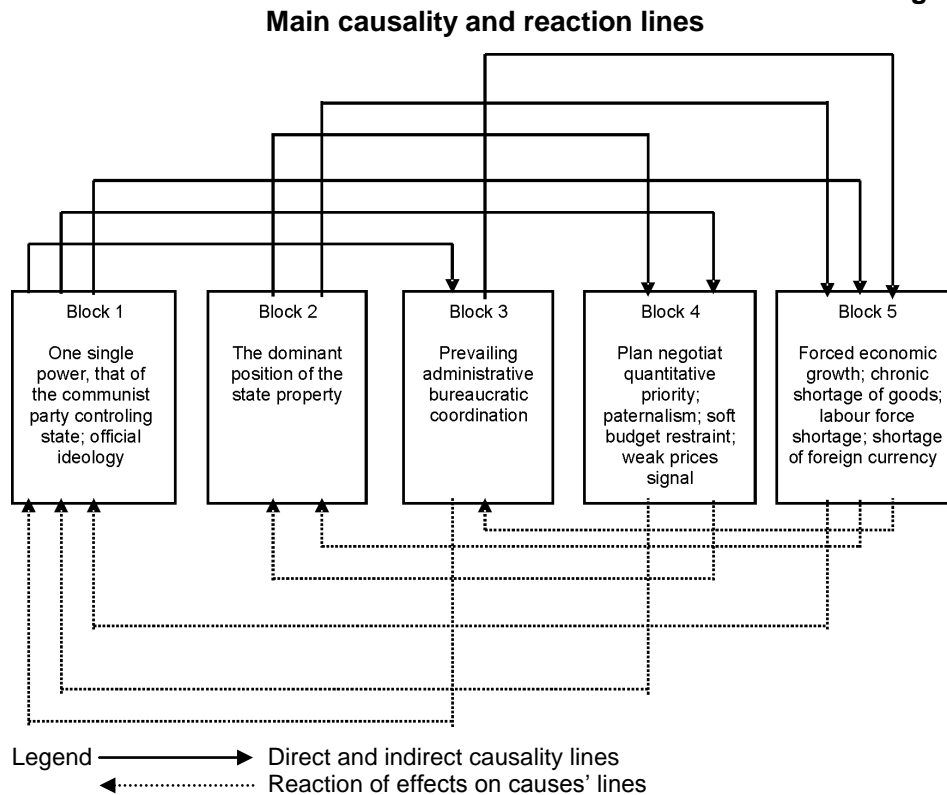
A diagram in which J. Kornai describes the coherence of classical socialist institutional system²⁵ is shown in figure 1.

In the diagram, there are five blocks connected by causality lines running from the centre towards periphery (from left to right) transmitted directly and indirectly to the whole system. The arrows indicate the way in which each group of institutions, represented by the last blocks on the right, is influenced not only directly from the preceding blocks, but by the other groups of institutions.

²⁴ Rey Koslowski, *Op. cit.*, p. 683.

²⁵ Janos Kornai, *The Socialist System, The Political Economy of Communism*, Princeton University Press, Princeton, 1992, p. 361.

Fig. 1



Within the system presented in the diagram, the interrupted lines, running from the periphery towards the centre, suggest the reaction of effects on causes, which ensures the maintaining and even strengthening of the power's monolithic structure. Whenever economic reforms had been carried out without changing the political regime in socialist countries, the reaction of effects on causes took place with the same final result each time practically, the reforms were terminated or just gone through the motions of.

Within this institutional structure have been presented numerous institutions of the capitalist economy - prices, money, banks, taxes and duties, settlement of accounts rules, a.s.o. These institutions, however, have been completely subordinated to the socialist economy's goals and methods, only certain functions of these institutions actually being used. For instance, from the price system only its function of computation was used, not that of signal for the state of resources, and from the banking system only the function of economic units' control. The introduction and

maintaining of these institutions was possible as long as some of their functions could secure the functioning of socialist mechanism as a whole and, in the first place, the centralized control by the party-state over socio-economic processes.

In various socialist countries, before 1989, many reform schemes were initiated - of extending some capitalist institutions' functions placed on a socialist economy's foundation. In Romania, such preoccupations being forbidden, the classical socialist institutional system was preserved, which partly accounts for the difficulties encountered in the construction and operation of the newly created market institutions, as this is being implemented without a certain preparation like in other countries, for instance, in Hungary and Poland, where economic reforms have been experimented with for 2-3 decades.

Following the political revolution and reforms undertaken during the five years in Romania and other East-European countries, a *suigeneris* economic and institutional mix was created: on the one hand, elements of socialist economy, prevailing and still powerful, but rapidly declining due to their inefficiency, encouraged and supported by state bureaucratic antireformist forces and by political formations consisting in general, of persons who lost their privileges;²⁶ on the other hand, capitalist economy elements, incipient but vigorous in terms of their efficiency, sustained by small holders and a bourgeoisie in formation yet numerally and economically weak.

Due to the existence of this economic and institutional mix, the possibilities offered by neoclassical economic theories to explain the change of economic and institutional processes are quite inadequate, as in our case we refer to other socio-economic structures and dynamics than those in developed capitalist economies. Neither the deregulations' theory - which explains numerous political economy actions for the changing or improving of some economic and institutional processes by state intervention in capitalist countries - can be used as an instrument to explain the processes in East-European countries because the institutional changes occurring in these countries cannot be compared, in amplitude and consequences, with the changes taking place in western economies.

The change of economic and institutional mix during the transition period implies not just mere improvement or adjustment processes, but

²⁶ K.E. Schenk, *The Economic Policy Framework in Transition - Resistance to and Strategy for Change in Eastern Europe*, in "Journal of Institutional and Theoretical Economics" (JITE), 148, 1992; Branco Milanović, *Liberalization and Entrepreneurship. Dynamics of Reform in Socialism and Capitalism*, M.E. Sharpe, Inc, New York, 1989.

structural transformation whereby capitalist market elements take the place of socialist ones at a rapid pace and within a specifically political process. These transformations, in order to be explained and managed, require adequate theories, their own interpretations and methodologies. Since the transformation of economic and institutional mix is not a natural or spontaneous process, but a process which is closely linked to political decision, its study should resort to adequate disciplines such as neoinstitutionalism viewed in historical perspective, public economics, public choice theory, as well as neokeynesian and monetarist.

In view of real processes' complexity and the difficulties raised by theoretical problems in the analysis and explanation of these processes, it is necessary that the approach to economic and institutional mix should be made from the following angles: (1) from that of the current impact generated on the socio-economic system by institutional changes; (2) from that of the time consistency of institutional system's structure in transformation; (3) from that of the state's role in setting the transformation pace and directions of institutional system's structure within the socio-economic system; (4) from that of the market economic model where the socio-economic system should be headed for in which market competition processes in the economic area must correspond to democratic processes in the political area.

In previous paragraphs we have answered the exigencies of the first mode of approach briefly characterizing the economic crisis in Romania and other East-European countries, as well as the pace of reform in the countries and the falsity of the idea according to which the shock therapy is the main cause of economic crisis. It was claimed hypothetically, that the primary factor of economic crisis is the institutional crisis brought about by the initial vacuum created by the scrapping of some institutions without the preparation of others to take their place and then the lack of synchronization of reform measures, especially by the delay with which some measures are taken for the creation and implementation of new institutions. These problems, will be briefly discussed in the following paragraph, thus meeting the exigencies of the mode of approach from item (2). The other aspects (modes of approach) mentioned at items (3) and (4), although of greater importance and relevance, will form the subject of other studies, as there is need of a quite sophisticated special scientific support.

1.6. The institutional vacuum and discrepancies in institutional transformations

Whatever happened during more than five years since the Revolution in Romania and other East-European countries was closely linked with the institutional revolutionary process of unexpected proportions in terms of its consequences on the dysfunctions occurring in the socio-economic life. Unfortunately, this revolutionary process is not studied with sufficient attention in order to draw all the necessary conclusions.

The rapid crumbling of old political institutions ordering the whole system through central commands and the relative swift creation of other political institutions on democratic principles have caused great difficulties in the economy, due to the emergence of an incompatibility between the old economic institutions with socialist behaviours, goals and functions, and expecting information and orders from the centre, and the new political ones designed according to democratic criteria, therefore non-authoritarian and not sending information and orders from the centre.

In the previous paragraph it was emphasized that the old institutional system as a whole, comprising the capitalistic elements, had been built and fully adapted to the needs of centralized socialist system. The change over to the market economy cannot be made by attaching to the new democratic political institutions a mosaic of economic institutions in which the old socialist ones should prevail. It becomes obvious that as long as the old economic institutions will be maintained in operation (especially the essential ones), they will continue to need the old state's authority in order to function normally. However, the mere abolition or removal of old economic institutions cannot constitute a solution, without a thorough examination and implementation of the necessary measures for filling the vacuum with fully compatible new institutions. For instance, the abolition of centralized planning in the former socialist countries, without its replacement with other institutions which should take over certain functions of the old planning, has generated a huge vacuum of information and connecting channels among economic units with important consequences in deranging the economic system.²⁷

²⁷ J. Kornay, *The road to a Free Economy*, W.W. Norton, New York, 1990.

1.6.1. Price liberalization - a necessary but insufficient step for filling the vacuum

In order to eliminate this vacuum, the price liberalization was carried out a first and important step on the road to reform, thus considering that the liberalized prices could constitute the new market institution able to replace centralized planning by taking over its function of resource allocation. This hypothesis, based on the neo-classical theory of perfect competition, turned out to be false as long as in reality the market structure had not even been brought to a minimal competition situation, with the exception of some segments in agriculture and in services, maintaining the prevalence, on the one hand, of monopolies and oligopolies in the Romanian economy, and on the other hand, of state ownership over the means of production in all the branches, with the exception of some parts of agriculture.

By the mere implementation of price liberalization, neither the institutional vacuum nor the time inconsistency in institutional transformation were eliminated. Price liberalization - although a decisive step on the road to reform - has generated not only an important shock in the economic system, but also sudden and significant distortions in the economic agents' behaviour relative to those proposed or rationally perceived by the neo-classical economic school. Because of the preponderance of monopolies and oligopolies which control or impose, without restrictions from the state, the level of prices on the market and the level of demand, resource allocation is made according to the monopoly rent criterium by increasing prices and lowering production and not according to the criterium of efficiency by minimizing costs and increasing production as within a real competitive market.²⁸ Obviously, the decentralization of decisions by abolishing centralized planning implies measures of price liberalization, since only in such a way could the mechanism of efficient resource allocation be applied. However, the expected result - as was emphasized - could take place on a market free of monopolies or on a market in which antimonopoly institutions were created and became operational. The decentralization of decisions calls for yet another element which is extremely important - an adequate decentralization of responsibilities

²⁸ For details regarding the structure of competitive and monopolist market and the distortions caused by monopolies and oligopolies in the formation of the offer and prices, see: A. Iancu, *Tratat de economie*, vol. 3, *Piață, concurență, monopol* (Economics Treatise: Market, Competition, Monopoly), Editura Expert, București, 1993.

through privatization. The delay in decentralizing responsibilities creates an institutional inconsistency of great proportions leading, as we shall see, to the proliferation of degenerative behaviours of agents within the economic environment, bringing about its decline.

1.6.2. Decentralization of responsibilities through privatization - key to vacuum elimination

Reform economists formed at the neo-classical school, abstracting from the institutional constraint, including transaction costs, have neglected and are neglecting not only the existence of monopolies, but yet another fundamental condition implied by the normal market operation, that regarding property rights which in fact makes possible and necessary the accountability in administration/utilization and in the exchange of goods in a market economy. In order to realize the real dimension of the role played by property rights' institution in ensuring the economic system's operation and particularly, the true dimension of institutional inconsistency created by ambiguity regarding property rights in the conditions of decentralized decisions, we shall use the analysis and conclusions of the German economist Schmieding made in his study on the transformation economic crisis. Thus, in the paragraph entitled "Liberalization precedes privatization" he points out the negative consequences on the economy generated by deprived of its control in conditions of decisions' decentralization.²⁹

In developing his theses, Schmieding proceeds from the following fundamental conclusion: the more the strictly command system gradually degenerates into a bilateral negotiations system or the more the command system is deliberately abolished, the more the individuals on leeway should follow their own interest in conditions of much lesser compulsory constraints. It is at this point that the fact whether or not the incentives for individual action are economically efficient becomes important. Reiterating and appreciating Winięcki's ideas in 1992, Schmieding points out that by the switch-over from the deceased command system to that of bilateral negotiations; the state-owned enterprises and banks become in fact "nobody's firms" and "nobody's banks". The insiders, that is the managers and workers' representatives plus, in some cases, the regional authorities - goes on Schmieding - become owners *de facto* of a property which is still *de jure* in the possession of an entity called "state". The separation of the *de jure*

²⁹ Holger Schmieding, Op. cit., p. 238-239.

property rights from *de facto* ones (which is one of the main characteristics of the incipient transition period) creates two kinds of uncertainties regarding the property rights:

(1) the property rights are ill-defined³⁰ legally and practically inadequate protected;

(2) the future distribution of the *de jure* property rights which will be better defined is unknown for the time being.

In other words, the insiders do not know whether their present *de facto* property rights will offer them the privilege of benefitting from a future definition and distribution of the *de jure* rights of property. For the insiders - continues Schmieding - the privatization envisaged is more a threat to their actual position than a sure opportunity to gain a privilege. The property rights' uncertainty can thus determine informed people to opt out for a so-called end-of-game strategy, that is for their rapid enrichment at the expense of the firms' capital value as long as they can, before a new owner (a private one) could take control over the property.

In view of these degenerative behaviours which emerged in the economy and were generalized in countries in transition, Schmieding concludes that the decentralization of decisions without a suitable and rapid decentralization of responsibilities (therefore without privatization) can offer economic agents individual incentives to use at least one production factor, namely the capital, even less efficiently than before. In an extreme case, the shrinking of assets, although restrained but not effectively controlled by the state, could continue until the whole state-owned firms' capital stock is consumed by managers and workers.

The negative consequences of such degenerative behaviours may spread throughout the whole economy thus also affecting the private firms which question state firms' correctitude in observing contractual stipulations, as well as their trustworthiness. Maintenance of the system of dissipation and weak accountability in administering the capital, plus the paternalist and egalitarian behaviour of workers and state-owned economic agents create the premises of maintaining soft budgets for state economic units,³¹ as well as the premises of a general lack of performance.

³⁰ H. Schmieding points out that these characteristics of the rights of property are highlighted by M. Olson in his article: *Why is Economic Performance even Worse when Communism is Abolished?* University of Maryland, 1992.

³¹ J.Kornai, *The Evolution of Financial Discipline under the Post-socialist System*,

As long as transaction contracts cannot be concluded and strictly observed, due, in the main to the lack of clear-cut stipulations of the *de jure* and *de facto* property rights and as long as monopolist structures prevail, liberalized prices' function as barometer of economic unit's efforts and an objective means of computation in transactions are heavily deflected from their true purpose. From an element of equilibrium they have often become an element of economic disequilibrium. Actually, due to the general weakening of responsibility in economic administration and transaction as a result of the maintenance of state property in the conditions of weak or even non-existent state control, the so-called debtors' conspirative solidarity phenomenon has been generalized throughout the economy, generating inter-enterprise arrears. This has become a chronic phenomenon, a syndrome of transitional economy aligning performing units to non-performing ones, thus canceling the function of efficient resource allocation which liberalized prices' institution should have exercised.³²

1.6.3. A variant for speeding-up the resolution of property rights

The emergence and development of the above-mentioned behaviours clearly necessitate the speediest resolution of property rights by reconsidering the privatization program which was initially elaborated according to the neo-classical economic rules and principles and according to the economically developed countries' experience, without anticipating the appearance of the negative effects from these countries' economies to such an extent.

A dangerous phenomenon was previously pointed out, namely the rapid decapitalization process taking place in numerous state-owned units, by the diminution of their circulating capital and fixed assets' nominal value, as the investment rate is maintained below that of amortization (relatively low anyhow) especially as a result of inflation, and the practice of exaggerated interest rates. Under such conditions, is taking place, on the one hand, a reduction of nominal (book) value and of capital's physical volume, and on the other, a more rapid decrease in the real (market) value

Kyklos, vol. 46, Fasc. 3, 1993.

³² Daniel Dăianu, *Arieratele inter-întreprinderi în economia de tranziție* (Inter-Enterprise Arrears), "Oeconomica", 4/1993; Lucian Croitoru, *Politica de stabilizare și impunerea restricțiilor tari într-o economie de tranziție*, (Stabilization Policy and the Imposition of Heavy Restrictions in a Transitional Economy), Institutul de Economie Industrială, December, 1993.

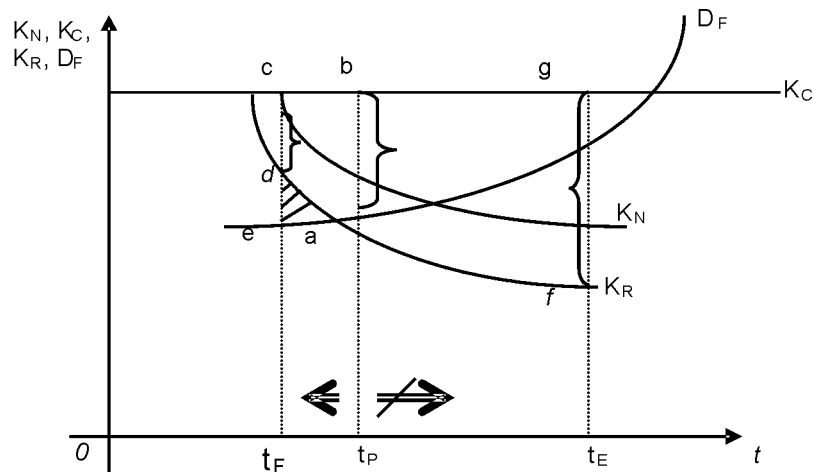
relative to capital's nominal value. In view of these processes and the requirements of the subject under discussion, we can take into consideration, as work hypotheses, four main trends:

1. the reduction in nominal (book) value of economic units' capital (K_N);
2. the more rapid diminution of capitals' real (market) value (K_R) than its nominal value;
3. the increase in a relatively low rate of financial resources* available for buying capital (possessed by population and private economic units) D_F ;
4. the hypothesis of constant value, over time, of nominal capital (K_C) equal to the initial value, in order to be able to determine effective capital losses taking place.

On the basis of these four hypotheses it is possible to construct the diagram in Figure 2, which describes the evolution of the mentioned indicators from various state-owned economic units.

Fig. 2

The evolution of capital value and of available financial resources, and privatization points in time



The question to be asked is the following: which is the most advantageous moment to sell the assets of an economic unit (or a whole economic units) considering this evolution of (their) its capital? If we analyse the curves in the diagram we can draw the following significant conclusion: the longer the sale of capital is postponed, the more the losses seems to grow due to the shrinking of its real (market) value, as a result, especially, of

* Lack of available financial resources affects to a large extent the evolution of the relationship between capital's real and nominal values.

the enterprise's lack of profitability, out-dated technologies and decapitalization. For illustration, we shall analyse, as hypotheses, three different sale moments marked as:

t_P - apparent optimal time for selling the unit;

t_F - favourable time for selling the unit, including payment facilities (credit sales);

t_E - time of sale with great losses (unacceptable).

If the sale is made on moment t_P , the loss is given by the difference between the capital's constant value and its real value (ab);

If the economic unit is sold more rapidly than the apparent optimal time, that is on time t_F the loss, representing the difference between capital's constant and real value, i.e. the distance dc is smaller than ab , ($dc < ab$). As the buyer does not have available the financial resources necessary for buying, payment facilities can be granted - pay by installments with cut interest rates. The distance ed represents the amount the debtor buyer should pay;

If the sale is postponed to moment t_E , the loss, represented by the distance fg is obviously higher than in the two preceding cases: $dc < ab < fg$.

These are static relationships, without taking into consideration the financial and production effects over time. From a more complex analysis of the hypotheses (including in dynamics) mention should be made of the fact that the more rapid sale of the respective economic unit would represent a two-fold advantage.

The first, of a general character: the amounts of money received by the state on moment t_F plus the future installments of the value of capital sold on credit, begin to bring immediate general advantages. For example the amounts received by the state: (1) can be used for the restructuring of some important economic units in order to prepare them for sale; (2) can be deposited in banks for obtaining interest; (3) can be invested in new activities of great national interest or more profitable. Thus the general investment process can be more rapidly resumed whereby prompting the beginning of an economic upturn.

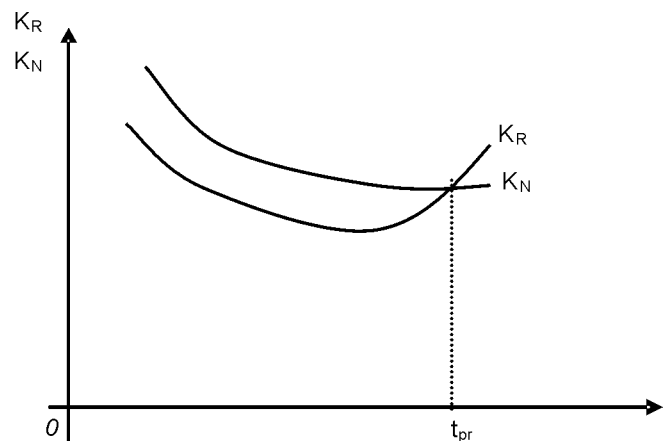
The second advantage, at economic unit's level: clarifying the property rights by superposing the two elements – *de facto* and *de jure* - therefore clarifying the problem of owner's disposal right and the right of effective control, the economic unit begins earlier its turnaround or free entry into a market economy's normal circuit, which means its financial recovery, the beginning of an investment program, increased production, hiring of workforce.

The concrete economic successes scored by the economic unit bring about fundamental changes in terms of capital's nominal and real value evolution and of the relationship between these values (figure 3).

In case the economic unit begins to perform on the market, capital's real value starts to exceed its nominal value.

Fig. 3

Probable evolution of economic units' capital value after privatization (t_{pr})



1.6.4. Observance of regulations and the institutional vacuum

Until now we mentioned the institutional vacuum due to the lack of legal regulations and of normal rules or restrictions imposed by state authority. Besides the fact that the institutional system is incomplete in terms of the needed set of regulations and restrictions, with many blanks remaining on the market economy's rules chart,³³ a serious problem

³³The list of requirements for filling the institutional vacuum in Romania and various East-European countries is quite long. If we refer only to the legislative ones (laws, regulations) we cannot overlook, for instance, the following needs pointed out by H. Schmieding: the introduction, definition and protection of private property rights aimed at promoting the efficient use of resources; the elaboration, approval and implementation of the contract law establishing property exchange rules between economic agents, as well as the rights and responsibilities of the partners in the exchange process; complete reconstruction of the banking system and the creation of financial markets in order to make the connection between savers and investors; the creation for all economic agents of a credible environment for

amplifying the institutional vacuum in Romania is the non-observance of some regulations or/and the deficiencies persisting in implementing the norms, regulations and rules, as a result of the lack of responsibility and of organizations' networks which should implement or monitor the observance of laws penalizing the violation of law-stipulated rights and obligations.

One of the characteristic instances of the growing institutional vacuum is the one in the agriculture generated, in particular, by: non-specification of property rights by the non-observance of regulations provided by the land law (delay in taking possession and in issuing property certificates); maintenance in operation of state monopolist economic organizations for rendering services under contract with payment in kind and with unilaterally established conditions; lack of mutual financial assistance and insurance institutions or organizations, of associative organizations backed by central and local public authorities for the sale of goods by auction based on the principle of farm produce exchanges a.s.o. Thus non-determination of property rights, together with the maintenance of a state of confusion and lack of products' marketing facilities, lead to a rapid degradation of assets accumulated in this branch, to growing stocks of unsold products, as well as to a delay in the implementation of normal competition economic relations, all these causing significant economic losses with an impact on the economic crisis.

Problems of the institutional vacuum emerge even in the case of newly created institutions. In this connection, Jan Drewnowski's assertion that we cannot afford to foster the illusion that capitalist institutions, will begin to work properly the moment they are declared open³⁴ seems quite relevant. For any new institution, stresses Schmieding, an essential problem is the accumulation of specific human capital (skilled personnel) which operates and manages the respective institution, or operates the observance of regulations. For the beginning, there should be accepted the quasi-general situations in which the new institutions start their activities or are implemented with reduced experience, penury of information, lack of links with economic agents' network, thus generating high transaction costs and low economic performance. Yet gradually, the situation of new

exchanges and depositing of values.

The implementation and observance of all these rules require the redesigning and creation of adequate organizational structures. These should include the banks, law courts and state administration (Holger Schmieding, Op. cit., p. 235-236).

³⁴ Jan Drewnowski, *The Paradoxes of the Polish Economy*, "East-European Reporter", 4, 3, 1990, p, 16.

institutions is changing, their economic performances becoming better than those of old institutions, being reflected in lower transaction costs.³⁵

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Both the institutional vacuum and the time inconsistency of institutional transformation have become economic reform's major problems in Romania and other East-European countries. Unfortunately, this vacuum, the lack of synchronization and transformation distortions are the result, to a great extent, of the vacuum existing in the area of knowledge and, particularly in the field of economic theory. Under such circumstances, we consider that the first step should be the systematic study of neoinstitutionalism and of other new economic policy disciplines, the only ones which could largely provide deeper insights into economic, political and social realities than neoclassical economics' various currents. The vacuum could also be eliminated by the elaboration of throughgoing and concrete studies and projects indicating the blanks in the institutional chart and the way in which the consistency of institutional system's transformations should be ensured, including the modalities of implementing such projects so that, on the one hand, to eliminate degenerative behaviours in the economic system, and on the other hand, to give more prominence to the segments of economic and political mechanisms which ensure country's socio-economic progress.

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2. THE STATE DURING THE TRANSITION PERIOD*

In the article "Transition as an economic reform and an institutional change process" I have stressed the existence in the Romanian economy of an institutional vacuum created after the revolution, as well as of a lack of synchronization in the policies of institutional transformations which had taken place during this period. Institutional transformations represent a Schumpeter-like process of constructive destruction, resulting from the experiment conducted not only at local level, but at the level of the entire economic system. They have a strong impact on the dynamics of this system's structure.

Speeding up the pace of institutional reform, concurrently with the implementation of a set of coherent and strict economic policies and instruments of micro and macroeconomic stabilization and restructuring cannot be allowed to spontaneously develop, but must be conducted by a profoundly reformatory, orderly and strong state authority.

Studies on the role of the state during the transition period carried out so far are too few and suffer from marked empiricism. This situation seems to have a two fold explanations: 1) the importance of the role played by the state during the transition to capitalism is almost neglected¹ in the neoclassical economic theory; 2) although beginning with the 1940's and up to the present numerous nationalizations and privatizations, as well as regulations and deregulations were implemented in the developed capitalist countries, all these took place in a general environment of consolidated capitalist market institutions, without significant changes in the economic system capable of causing fractures and social convulsions.

As far as the state's role during the transition period is concerned, there are many questions, such as: does the state intervention in the economy contradict liberalism? why is a strong state necessary and how does it relate to democratic principles? why is economic and political

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¹ Rey Koslowski, *Market Institutions, East European Reform, and Economic Theory*, Journal of Economic Issues, vol. XXVI, no. 3, September 1992, p. 684.

competition necessary and how could confrontations among political forces and interest groups be replaced with cooperation among them if the forms of cooperation contribute to the consolidation or erosion of democratic pluralism? All these questions are closely linked with the activity which the state should carry on in the economic area.

In the following sections we shall attempt to answer these questions emphasizing: the need for state intervention in implementing the reform and boosting state's authority; the promotion and development of political and economic competition as a fundamental principle of democratism; the confrontation and cooperation - forms of competition; the necessity of cooperation and the problem of maintaining political pluralism.

2.1. Rational constructivism and reality

Some exponents of liberalism challenge the role of the state in conceiving and managing the reform process, on one hand, bringing up as a main argument Hayek's criticism of constructivism, and on the other hand, recommending the application of the libertarian principle of leaving processes take their natural or spontaneous course.

Surely, waiting for or merely watching the destruction of old institutions designed according to centralist principles and the spontaneous birth of new market institutions according to liberal principles in the conditions of present-day crisis and of the complexities of economic and political life, is neither in line with Hayek's rational constructivism nor with the principles of modern liberalism but rather in line with an anarchist conception and with an antireformist attitude unacceptable to any realistic liberal.

The conceptions of some theoreticians such as von Mises, Hayek and others, as well as the exhortations of some politicians, adherents of liberal doctrines, to avoid economic constructivism and not to implicate the state in the economic area, must be considered, in philosophical as well as in scientific terms, in close confrontation with realities. That is why we hold that von Mises's and Hayek's studies should be interpreted in the context of realities at the time of their writing, as well as in contemporary terms². For instance, before World War II, Hayek, in his confrontation with totalitarian ideology (fascist and stalinist) strongly opposed the idea of rational

² F.A. Hayek, *The Counter Revolution of Science, Studies on the Abuse of Reason*, Liberty Press, Indianapolis, 1979; Idem, *Drumul către servitute*, (translation), Bucharest, Humanitas, 1993; Ludwig von Mises, *Liberalism in the Classical Tradition*, New York, Cobden Press, 1985.

constructivism or that abuse of reason. Moreover, Hayek has realized perhaps better than many other economists what Kazimierz Poznanski recently asserted: we should keep in mind that, if the communist experiment is an important lesson, any short term social engineering finally ends up in disaster³.

From Hayek's writings one should not perceive the wholesale rejection of constructivism. He made the distinction between various purposes for which the institutions were created. From this perspective he pointed out, for instance, that institutions should be constructed for the purpose for which they now serve⁴. In other words, this means taking into consideration the conditions of competitive market economy and of a free democratic climate, obviously in opposition with any totalitarian idea or action of centralized planning. When Hayek rejects the idea of rational constructivism or of the abuse of reason in the economy, he makes a stand not only against those who, in the name of some utopias or of totalitarian political interests, have destroyed or are destroying market relations in order to replace them by planning, but also against those who now attempt to come back to market institutions in a purely rational way without understanding and taking into account the particularly complex concrete conditions of economic processes and mechanisms and of their implementation and development requirements. Therefore, taking into consideration Hayek's criticism of rational constructivism does not mean a plea for the rejection of economic reforms, but on the contrary, a plea for economic and political discernment according to the specificity of social and economic processes and to the requirements of practice. J. Kornai suggests that, whenever we refer to the construction of socialist institutions, we should make the distinction between the category of those institutions which can have a healthy development only as a result of a historical organic development and that sort of institution which were incapable of taking roots over the past decades due to the fact that they were artificially created, ill-conceived illusions imposed on society⁵.

Unfortunately, history repeats itself even in the case of the change-over from socialism to capitalism. According to Poznanski, even realistic projects, such as that regarding the transition to a market economy, cannot be forced without the risk of failure. Current debates on privatization often sound like an analogous reverse side of the large-scale socialization which

³ Kazimierz Z. Poznanski, *Constructing Capitalism*, Westview Press, Oxford, 1992.

⁴ F.A. Hayek, *New Studies in Philosophy, Politics, Economics and the History of Ideas*, Routledge Kegan Paul, London, 1979.

⁵ J. Kornai, *The Road to a Free Economy*, W.W. Norton, New York, 1990.

brought about the Soviet-style nationalization with the well-known results⁶. Privatization cannot be reduced to purely financial aspects - the act of buying of assets or of enterprises and the apportionment of shares with financial significance. Aspects such as privatization's motivation, increased efficiency, stimulation of capital formation (of investments), increased number of agents, particularly of entrepreneurs and adoption of the new financial and contractual discipline are as important as the financial side regarding the transfer of property through the sale-purchase deed. The state has not only the role of speeding up privatization, but also of taking the necessary measures so that the process become viable once the transfer of property is accomplished, of offering incentives for the promotion of privatization, in the first place, by protecting the private sector of the newly established agents against the competition practiced by the state sector and of establishing the legal framework for guaranteeing private property under equal terms with the state property⁷.

It is unquestionable that rational constructivism cannot be excluded from the economic and institutional transformation processes, yet it cannot be accepted in any conditions and at any price. It must be accepted only when it is perfect agreement with the requirements of applying some mechanisms based on supple and adaptable free market institutions which could generate healthy economic behaviours for all economic agents.

2.2. The need for increased state authority

From what was stated in the preceding paragraph it follows that in order to avoid acts of anarchy and to ensure the coherence of economic, social and political processes, structural transformations cannot take place spontaneously. They must be conducted by a central authority invested with decisional powers, generically represented by the state authority.

Many economists have correctly noticed that the change-over to a market economy means that the state should engage in activities, characterized by J. Kornai as hard and severe, the government having to fight even with its own hierarchies (with public services' insolence with is hampering the development of the private sector, and with corruption) and to ensure the strict implementation of a new fiscal and monetary policy, the introduction of financial and wages' discipline⁸. Besides all these, there is the emerge of new phenomena previously unknown by the population such

⁶ Kazimierz Poznanski, *op.cit.*, p. 209-210.

⁷ K. Poznanski, *op.cit.*, p. 209-210.

⁸ J. Kornai, *Op.cit.*, p. 118-119.

as the unemployment, inflation, the risk of its own actions that quite often generate dissatisfaction among various strata of society which the government must cope with. Hence the reform is a complex, contradictory and hard process involving the economic interests of all social and political forces of all orientations and ideologies.

Most economists consider that the reform could be implemented only under the guidance of a strong state. Here we find two great paradoxes characteristic to the transition period, which complicate the real problems.

The first: the post-totalitarian state is not considered as weak as it really is, as it is thought for countries to be wrongly identified with the so-called party-state of the dictatorship period⁹.

The second: while during the transformation the role of the state in the economy should be reduced, this process, in order to be successful, calls for a strong, coherent and competent state, invested with a substantial authority¹⁰.

The need of increased state authority has become an axiom, at the central as well as the local level, as neither the stabilization program, nor that of transformation and consolidation of the market economy can be accomplished in anarchical conditions with a weak state characterized by legislative and institutional void, non-observance of laws, financial indiscipline, tolerance of the scourge of corruption at all levels, exacerbation of political rivalries, tolerance of political extremism, undue politicization of social and economic life.

This requirement has become the more urgent since in our country, like in others from East Europe a striking asymmetry emerged in the state/society relationship a shift in "favour" of some groups of society: a weak state accompanied by a divided society, without a developed civic spirit. The moral undermining of state institutions through excessive criticism levelled at them, as well as the maintenance and cultivation of conflictual situations in society and against state institutions by groups of interest from economic sectors with monopoly status, accompanied by decisional paralysis, abuses, corruption and non-observance of laws even by state bodies' representatives further weakens state's power and authority. At the same time, certain groups of interest especially grew stronger through self-organization and an exaggeration of claims in their favour, at the expense of weaker ones.

⁹ Rey Koslowski, *op. cit.*, p. 684. The relationship between the communist party and the state was explained earlier, the party holding the whole power, the state being subordinated, therefore being of party bureaucracy's executive.

¹⁰ K. Poznanski, *op.cit.*, p. 210.

The need of a state in which the balance of power should be in its favour was frequently expressed not only in the world of politicians, but also in academic circles¹¹. If only a strong enough state can implement long-term economic policies, offer enough credibility for measures undertaken and for the new problems created and eliminate private economic agents' uncertainties upon entering in transactional relations and national markets, the existence of a strong state becomes imperative, especially in the case of achieving particularly complex objectives of the reform, such as expansion of the private sector by large-scale industry privatization, implementation of macrostabilization and economic relaunching program supported by monetary and financial measures, structural adjustment in economic branches as well as commercial policies aimed at equilibrating the trade and payments balance.

2.3. Two models of strong state and their significance

How could strong state (or government) syntagma be interpreted? Of course, a wide variety of state types can be conceived which fall into this category, depending on the objectives pursued, chosen criteria, and political means utilized, taking into account, at the same time, the realism with which they are motivated and applied, possible impact, as well as the national and international political environment. In order to avoid logically created abstract models and further bring us closer to reality, we could refer to two types of models which exist or have existed in the world that allow us to make several evaluations relative to our subject.

The first type of model, representing an authoritarian government or administration, or a military dictatorship, could constitute the first variant of strong governments which could solve economic and social problems better than before. Stanley Fischer points out that some researchers from East-European countries are attracted by the Pinochet regime's example-authoritarian government which, by implementing market economy transition reforms, could subsequently lead to an efficient economy and to democracy. Spain, Chile and South Korea, plus Turkey of the '70s are also examples of well known countries with authoritarian governments which, according to Fischer, have fared well, both economically and politically. However, in spite of all these examples, Fischer is not convinced that the economic performance of an authoritarian government could be better than in the case

¹¹ K. Poznanski, *op.cit.*, p. 211.

of a democratic government¹². Kornai not only that a Pinochet-type regime could prosper in the case of an economy with a large state sector, but is categorically against paying such a price for stabilization and reform. This is only an alternative suggested by a category of examples. Yet it lacks not only the certainty that it could lead to the expected economic performance¹³, but it is also morally wrong for those who advocate it and are ready to make such demands, as they do not probably realize that the respective country would be expelled from the ranks of civilized communities and that the population would again be deprived of liberty and democracy.

The second type of model - the democratic pluralist - constitutes an alternative which not only would not exclude but, on the contrary, would be based on liberty and democracy and it is that offered by Germany after World War II. The case of Germany of 1946-1950 is closer to the present situation of post-socialist countries, both economically and politically, as well as in terms of European values perceived by the population of those countries.

During the mentioned period Germany's economy was in a ruinous state with a huge institutional void, a strong inflation and disorganized links among economic agents, as well as a population traumatized by a dictatorship and a devastating war. All these called for the rapid implementation of some recovery policies. This segment of our present economy, wrote Alfred Muller-Armack in 1946, cannot solve the almost superhuman tasks of the German economy¹⁴. Political problems were to be overcome in order to come a solution¹⁵. This was possible, in the first place, by the implementation of reform programs elaborated by a liberal-oriented group of economists led by Walter Eucken, Ludwig Erhard¹⁶, *et. al.* and by

¹² Stanley Fischer, *Socialist Economy Reform: Lessons of the First Three Years*, *The American Review*, vol. 83, nr. 2, May, 1993, p. 393.

¹³ In a study on a sample of 83 countries (44 authoritarian governments and 39 democratic governments) Haggand and Kaufman reached the conclusion that there were no indications to the effect that authoritarian regimes would obtain better results than the democratic ones in their policies of macrostabilization and macroeconomic adjustment (J. Kornai, *Op.cit.*, p. 119).

¹⁴ Hans Otto Lenel, *Evolution of the Social Market Economy*, in A. Peacock and H. Willgerodt, *German Neo Liberals and the Social Market Economy*, MacMillan, London, 1989, p. 17.

¹⁵ These consisted of the monetary reform, abolition of supply regulations, gradual elimination of price controls a.s.o.

¹⁶ H.Wilgerodt and A.Peacock stress that a decisive political circumstance of the 1948 reform was the appointment of Ludwig Erhard as director of United Economic Territory's Economic Affairs Department (American and British occupation zone) in 1948. Later he has become the minister of economic affairs

the conclusion of a social pact between the Christian Democratic Government (Konrad Adenauer, followed by Ludwig Erhard), opposition parties, private sector (employers) and the trade union movement (in order to refrain from strikes). The pact was concluded between two categories of forces: 1. those which directly belong to the government with its respective responsibilities; 2. those outside the government with the pledge not to obstruct the first. The second category does not comprise the whole opposition, but only, the pro-reform segment which operates as a so-called constructive opposition, without a confrontation on initially agreed-upon basic economic targets¹⁷.

This has constituted one of the most important modalities of ensuring German Government and state's strength or authority during that difficult period. The social pact has been accomplished based on the implementation of three fundamental conditions:

1. promotion of free markets by the elimination of privileges, introduction of free trade, reduction to the minimum of state intervention in the economy;
2. guarantee of liberties by rules and institutions which must be strictly observed. Therefore, confidence in liberty must be accompanied by a lack of confidence in the forces which preclude liberty or interferes with it, coming either on the part of the state power or the private power¹⁸;
3. promotion of an economic policy based on social market economy principles which should equally take into account the three fundamental goals-liberty, efficiency, equity¹⁹.

and after Adenauer's resignation, German chancellor. Erhard has become a mediator between political practice and academic opinion, himself being a researcher economist and, at the same time, the most successful political agent and liberal economic policy advocate. This is the characterization made by H. Wilgerodt and A. Peacock in *German Social Market Economy: Origin and Evolution*, MacMillan, London, 1989, p. 2-3.

¹⁷ J.Kornai defined this social pact as a form of cooperation among certain parties, interest groups and social forces for the accomplishment of common targets. Usually, such a convention or pact concluded for a limited period with a view to achieving certain tasks or solving some important problems (J.Kornai, *op.cit.*, p. 120).

¹⁸ Hans Otto Lenel, *op. cit.*, p. 21.

¹⁹ The promotion of neoliberal economic policy based on the principle of social market economy, in principle, enters in conflict with the policies based on the principles of planned economy and on classical liberal economics (*laissez-faire*). Jack Wiseman uses, under the form of a simplified intellectual construct the comparison between social market economy and other organization principles, according to the three fundamental goals-efficiency, liberty and equity.

Organization principle	Fundamental political goals		
	Efficiency	Liberty	Equity
Planned economy	1	0	2
Social market economy (neoliberal)	3	3	3
Classical liberal economy (laissez-faire)	2/3	2	1

The example of post-war Germany offers certain advantages in comparison with the preceding group of examples not only in social and moral terms, but also as far as the results obtained in implementing the reform and the prospects of economic development are concerned. We support the idea of the conclusion of a social pact in Romania between pro-reform democratic political forces, on the one hand, and between these and the trade unions and other groups of interest, on the other hand. This would constitute the viable solution for our country, as it would mean the strengthening of state institutions' authority in the eyes of law-abiding people, on the one hand, and the possibility to implement recovery and economic reform programs by ensuring a new parliamentary majority supporting a reform-minded government within democratic institutions.

2.4. Competition as basis for liberal democratism in economy and politics

In the social pact alternative, the question arises whether competition as an operating principle of economic and political life still holds. In order to answer this question we shall attempt to discuss and analyse very briefly the question of competition on which, in a democratic society, rests not only economic life but also political life, between them existing a close institutional symmetry.

Competition, in economy as well as in politics, is defined as a situation in which two or more individuals or groups of individuals are competing for the favours of some persons or group of persons, who operate as referees for those entering into competition with the aim of gaining their favours. In their capacity of referees, the persons choose, make option. In a competitive economy, for instance, the buyers are sales referees. They choose the goods of those who sell cheaper and of a higher quality. In political elections, the voters are the referees. They choose the party which offers them, by its program or pledges made, the greatest advantages in comparison with other competing parties.

Obviously, competition in economy implies the existence of several producers and consumers (hence, it rules out monopolies and monopsonies), and in politics competition implies the existence of several parties (ruling out autocracy). Usually the existence of competition is considered desirable as, according to Mathews, it meets two main objectives: 1. prevents inefficiency; 2. precludes exploitation through the distribution process²⁰.

Inefficiency appears whenever a certain point is situated outside the so-called contract curve in Pareto model. Exploitation (from distribution) takes place whenever a monopoly or a political autocrat is in a position to impose a distribution of the returns from production and from trade or gains from wielding governmental power. Bruno Frey expands on this idea, mentioning the third objective of competition: increased well-being by opening up possibilities of making options, thus precluding any monopolist exploitation²¹.

Therefore, viewed in terms of the two areas of application - economy and politics - competition is classified in two large categories named by Mathews as follows:

1. **competition in transactions**, characteristic of the private sector in economy. It comprises the whole topics regarding markets' structure: from free-of-restrictions to monopolies and oligopolies, which transform perfect competition into monopolist competition under the various restrictions imposed by oligopolies and monopolies;

2. **competition for authority (power)**, typical of the political realm. It expresses the rivalry among claimants to the right to use authority in various organizations such as the state, political parties, trade union organizations, a.s.o.

In the literature of public choice, also named the economic theory of political-science, it was asserted that what competition represents in economics, democracy is in political science. This means that the access to authority, according to democratic principles, should be made through competition, in which political parties are the competitors, and the voters are the referees. Hence, the fundamental conclusion: a competitive market institutional structure can adapt to no other political structure but the

²⁰ This is quite a general theoretical view. In practice there appear many other aspects extensively dealt with in more recent economic literature. (R.C.D. Mathews, *Competition in Economy and Policy*, in *Economy and Democracy*, MacMillan, London, 1985, p. 1-2.

²¹ Bruno Frey, *Models of Perfect Competitions and Pure Democracy*, Kiklos, vol. XXIII, 1970, Fasc. 4, p. 739. While in economy monopoly is implied, in politics it is the sole political party.

democratic one. The emergence in the political area of some autocratic forms which preclude the competition for authority would mean the undermining and elimination of competition in transactions, therefore also of the competitive market economy, on the one hand, and the acceptance and promotion of state and private monopolist forms which eliminate competition, on the other hand.

2.5. Forms of competition and of strategies for authority

In real political life competition for power is an extremely complex process and assumes a large variety of forms and actions, aspects to be discussed later. Here we wish only to stress the specific conditions in which competition operates in Romania and in other countries in transition, making only a brief comparison.

2.5.1. Difficulties in bringing about competition

In the countries with a long democratic tradition, characterized by institutional and political stability, there are in competition 2-4 more significant political parties with political leaders and personalities well-known by the voters, with well-defined doctrines and programs, explained and familiar to the population, with electors well informed on democracy and electoral procedures. The picture of competition in Romania and other East-European countries is different. The political situation is still fluid, and democratic institutions are not yet consolidated but are in a rapid change, with deficiencies which influence negatively the achievement of a real competition. For instance, the fact that, on the one hand, the total amount of voters is dispersed on too many parties²², their programs not differing too much between them, and on the other hand, the parties not being consolidated and not always formed according to the real needs of political life, but rather according to the ambitions of some personalities who claim the same doctrines in order to enter into competition for power, creates parallelisms in the areas with the highest frequency among voters (social-democracy and liberalism) and a discrepancy between political behaviour and the real needs of economic and social life, which maintains among

²² In Romania, as in other post-socialist East-European countries, there was a real explosion of political parties and formations. There were more than 100 parties in Romania at the 1992 parliamentary and presidential elections.

population a state of confusion and distrust of political pluralism. It is this state of affairs that makes more difficult the emergence of competition for authority.

2.5.2. *Interest groups-actors of competition*

Even in the competition were to proceed normally, without such deficiencies therefore in conditions of perfect democracy, democratic processes would still have their limits too, such as: a) the election process based on the principle of equality - a man, a vote even for the indifferent ones - does not take into account the intensity of voters' preferences and options; b) through the mechanism of majority, important social groups which are in opposition are excluded from political decisions; c) the agreements which are taking place between elections among the representatives of various parties, as well as the need to adopt, on the way, to the realities of economic and social life make political actions to depart from initial programs without voters' agreement.

These limits, as well as other reason, make possible and necessary the formation of so-called interest groups which make up for the deficiencies of real political processes. The interest groups provide the link between the state and civil society. They activate and convey through various signals (conferences, reunions, lobby, statements, demonstrations, strikes) the demands made by civil society (social group) addressed to the political process in order to be taken into consideration in the elaboration of decisions²³.

²³ *About the economic interpretation of political processes, the limits of democracy and the genesis of social groups, including interest groups see: A. Downs, An Economic Theory of Democracy, Harper and Brother Publishers, New York, 1956; James M. Buchanan, Gordon Tullock, The Calculus of Consent, Ann Arbor, The University of Michigan Press, 1962; Mancur Olson, The Logic of Collective Action, Harvard University Press, Cambridge, Mass, 1971; James M. Buchanan, The Limits of Liberty, The University of Chicago Press, Chicago, 1975. The primary function of interest groups is no longer considered only that of articulating and conveying society's demands in the political process, stresses Metin Heper, making references to the tackling of this problem as early as 1966 by G.A. Almond and G.B. Powel jr. in Comparative Politics. A Developmental Approach, Boston, Little Brown, 1966. There must be taken into consideration a variety of roles, including citizens' socialization, consensus' organization, contribution to policy elaboration, implementation of laws and the like. See: Metin Heper, Strong State and Interest Groups with Special Reference to Turkey, in Metin Heper, Strong*

Taking into account the mentioned limits, as well as the specific deficiencies in which competition for authority takes place, it becomes more obvious the need for the formation and development in our country of well-structured interest groups (trade unions, professional organizations, political clubs, etc.) as official representatives of civil society intended to speed up the formation and consolidation of democratic institutions for elections on the basis of real competition and to monitor and regulate the competition process for authority.

2.5.3. Rojot's competition model

In the professional literature there are different approaches regarding the relations among groups representing various interests in society in the process of competition for authority or for the achievement of a specific economic or political goal. The theories of pluralism and corporatism concern the relations of competition for authority among the numerous groups representing various interests (including, for instance, political parties as well as employers' associations, trade unions, ethnic groups, religious groups, a.s.o.) in a wide range of strategies, from open conflicts to cooperation.

The diagram in figure 5 presents Rojot's model regarding the range of possible strategies of party or interest group bounded by the two extremes: cooperation and conflict taken as rectangular coordinates²⁴.

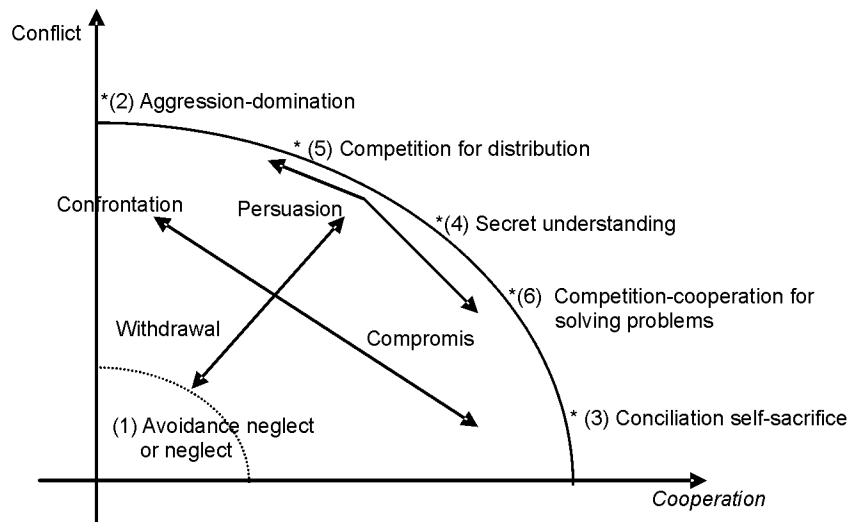
State and Economic Interest Groups, The Post-1980 Turkish Experience, *Walter de Gruyter, Berlin, 1991*; *Suzanne Berger*, Introduction in *Organizing Interests in Western Europe, Pluralism, Corporatism and the Transformation of Politics*, *Suzane Berger (ed.), Cambridge, University Press, 1981*.

²⁴ Jacques Rojot, *Negotiation: From Theory to Practice*, London, MacMillan, 1991, p. 101-105.

In competition, groups can adopt, in their political speeches as well as in their transactions and actions, a series of options. Each option is inscribed into this range of possible strategies in a certain place depending on the intensity of one of the two adopted attitudes.

Figure I

Range of possible strategies in the competition for authority



Such strategies could be adopted by parties as well as by various interest groups, such as, for instance, the trade unions, ethnic minorities a.s.o. They can adopt one strategy or another depending on their interests, the power they wield, restrictions imposed by constitution and laws, partner's attitude. According to Rojot-type model the points on the diagram express the strategies which could be adopted by sides depending on their interests.

Point (1), situated left side bottom in the diagram, indicates low interest for conflict and for cooperation. Therefore, negotiations are avoided or neglected, as it known that they could not bring any gains or losses. It could be said that tension for conducting negotiations is low.

Point (2), situated top left, illustrates great interest for open conflict, for which all resources and means for confrontation are mobilized. It is an extremely competitive attitude where initial demands are difficult to negotiate, pressure tactics and reprisals are prevailing, the opponent being considered not as a dialogue partner, but as an enemy who must be dominated or eliminated. Such behaviours occur quite frequently in our

country with parties and interest groups (certain trade unions), either because of non observance of some rules by the negotiating partners, or due to insensibility from the part of state authorities toward well-grounded demands, or finally as an extension in the conscience of numerous responsible persons of the well known Leninist-style intransigence against any opposition.

Point (3), situated bottom right, expresses great interest for cooperation and low interest for confrontation; a conciliatory and cooperative attitude is adopted for good relations, sacrificing even some of the advantages. More often than not this behaviour is due to a relatively low balance of power, unfavorable to the conciliatory side. This strategy is the consequence of a precarious economic or political state in which the conciliatory side finds itself, due to a reduced number of members and to the sector occupied in economy and society. Quite often this is the consequence of disequilibrium in the balance of forces between the parties interested in negotiations.

Point (4), situated top right, illustrates a disadvantage for starting a conflict and a great interest displayed by both sides to negotiate with a view to cooperating, as by negotiations they will stand to gain at the expense of a third party. For instance, in the case of agreements between the employers of a monopoly and trade unions for increased wages without increased productivity, the additional costs will be borne by consumers through products' and services' increased prices. The situation is similar also in the case of secret understandings among monopolies. Obviously, the variant in this point is, usually, illegal or unethical²⁵, as the understandings are made not at the negotiating parties' expense, but for their profit and at the expense of a third party - the population, some groups or some powerless organizations.

Point (5), situated on the left side in the middle, indicates higher interest for competitive aspects rather than cooperation. At this category the aim is rather the competitiveness for the distribution of fixed incomes, that is the process by which each negotiating side tries to maximize its share of the returns in the context of the existence of a fixed amount. Therefore, this category of negotiations implies more the compromise between yielding and receiving in the given conditions than in finding new solutions for redressing the situation.

Point (6), on middle right, expresses a higher interest for the cooperation aspects than for those of confrontation usually within this category of negotiations, the aim pursued is rather the so-called integrative

²⁵ Jacques Rojot, *op.cit.*, p. 104.

transactions, that is the process whereby the negotiating parties attempt to increase their common returns, much less the problem of the distribution of incomes or existing results. That is why this point rather implies the search for a way to reach creative and innovating results, which accounts for its denomination as competition-cooperation for solving problems.

*

At the last two points tension for holding negotiations is high due to the high pressure of the need to achieve the goals, because of the importance of internal problems and the estimating power of negotiating sides. A careful evaluation of the content of each point in the above model in terms of our practical interests to formulate strategical guidelines that could be adopted by our political and professional institutions, led us to the formulation of two conclusions of particular importance:

1. Competition must constitute the fundamental principle by which our country's economic and political life should function in order to ensure a better overall performance;

2. In view of current political and economic realities and the need to speed up the pace of economic reform accepted by the population, the most suitable form of competition is neither the one based on aggression and domination, nor that which is based on the struggle for the distribution of total fixed return, but the form of competition based, in the first place, on cooperation aimed at finding solutions to economic and political problems of mutual interest and, only in the second place, on the competition for a more rational distribution in a legal and equitable framework.

2.6. Cooperation: necessity, limits and secondary effects

The question is whether the implementation of the principle of competition based on cooperation can provide and consolidate the authority of the state's democratic institutions or, on the contrary, undermine it.

We have stressed above the need of cooperation among democratic parties (the ruling one and those in the opposition) on a set of fundamental problems regarding economic reform, but with the condition of maintaining the latter's independence and critical spirit toward government's shortcomings in order to maintain and develop political pluralism. The need of cooperation is brought out more forcefully by the disturbance in the economic and social life generated by the confrontation between labour organization (trade unions), on the one hand, and the industrial

management and state administration (government) on the other hand, the state (government) having in Romania's circumstances not only a role of mere mediator. In Romania, the trade unions have become increasingly betterstructured pressure groups with a great mobilizing power for extreme actions (strikes) and with initially hard-to-negotiate claims. Due to the preponderance of state property in economy, employers do not yet have a well-defined authority recognized by trade unions in the negotiating process which explains partially the frequent demands addressed to the government for mediation and guarantees followed by accusations that it does not become directly involved in negotiations and does not honour commitments made in its capacity as owner.

Prompted by hard economic circumstances and employees' discontent, the trade unions have initiated various protest activities, including numerous demonstrations and strikes. Maintenance of a conflictual situation and even the exacerbation of this situation in conditions of economic crisis and the lack of resources do not solve real problems, but cause social tensions with huge losses in the economy and jeopardize the implementation of reform programs. As with the relationships among parties the only viable solution is to forsake the conflictual situation and to adopt efficient forms of collaboration.

There is a vast literature regarding industrial relations which study bipartisan cooperation and negotiation relationships and forms between capital and labour, management and employees and employers and unions. At the same time, a rich literature emerged regarding corporatism which examine tripartite relationships among employers' organizations, employees' organizations (trade unions) and the state, the last playing a special role. While for the first group of relations, the existing studies offer solutions of cooperation with rather a technical character, for the second group of relations, the studies offer solutions with a more pronounced political aspect, given the fact that the state is also involved in defining and discussing these relations.

There is a wide variety of tripartite cooperation solutions suggested by corporatist studies, the specific of each depending, of course, on the mode of understanding and approach of the social organization as a whole. Schmitter considers corporatism as a system of interest and/or attitude representation, a particular mode or a typically institutional arrangement- quite ideal for bringing together as associates civil society's organized interests and state's decisional structures²⁶.

²⁶ As stressed by Schmitter, according to the mode of social organization and the economic and political system, there can be neoliberal corporatism or neocorpora-

Attaching a wider meaning to the notion of corporatism, Moore and Booth stress the following: corporatism is not a political system or an economic order, but a means to analyse the key to development and relations in a liberal democratic capitalist economy. It is a method of decision making and administration which implies certain relationships between state agents and key organized interests, including the factions-capital and labour²⁷. Using this notion in more accurate and specific way, the same authors point out the following: corporatism can be best considered as a particular form of relationships between the state and organized interests in which tripartite forms are used as a means of solving conflicts of interests by bringing the opposed groups in the process of elaborating decisions and granting them certain responsibilities for political results²⁸.

We must be retained in the fact that bringing interest groups in the political process of decision-making necessitates the creation of special institutions and mechanisms²⁹. With their help, the interest groups obtain an official representation in political mechanisms, on the one hand, and a responsibility in political processes and results, on the other hand³⁰. According to D. Held, this is the way the so-called "private governments" are created, which take over part of the state power's prerogatives, to this purpose, being established a new functional system and readjusted the relations among state, market and society³¹.

However, it should be known how much representation, in what form and how much responsibility for results these institutions or "private governments" could have or obtain. Critically referring to the existence of

tism, participatory corporatism, corporatism with permanent consultation, fascist corporatism a.s.o. Ph. Schmitter, Still the Century of Corporatism? in Ph. Schmitter and G. Lehmbruch (ed.), Trends Toward Corporatist Intermediation, London Sage publications, 1979, p. 8. This is one of several possible modern configurations of interests' representation, of which pluralism is maybe the best known and most frequent and confirmed alternative (Philippe C. Schmitter, op.cit., p. 8-9).

²⁷ Chris Moore, Simon Booth, *Managing Competition*, Claderon Press, Oxford, 1989, p. 8-9.

²⁸ Chris Moore, Simon Booth, *op.cit.*, p. 14.

²⁹ Market institutions and mechanisms where competition takes place exclude political and social negotiations. At the same time, state administrative institutions (bureaucratic) cannot cooperate with interest groups, as through these institutions' nature and structure it is attempted to impose on interest groups the policy regarding relationships through their subordination to the central bureaucratic system of decisions.

³⁰ Chris Moore, Simon Booth, *op.cit.*, p. 15.

³¹ David Held, *Models of Democracy*; Polity Press, Cambridge, 1987, p. 216.

such a trend in some democratic states, as well as to hypothetical cases, David Held draws attention to the emergence of a secondary phenomenon of utmost importance: the rapid erosion of the parliament and political parties³². Held illustrates this trend by three main elements which are disturbing not only the pluralist liberals through their effects of undermining the bases of democracy:

- traditionally represented political institutions are gradually replaced by a process based on tripartitism, which has brought about the erosion of parliament's position as supreme centre of achieving articulate policies and balance agreements among all the political forces of the country;
- although classical modes of representation (parliamentarians and elected local representatives) remain valid, the most important political and economic management work is done by functional representatives i.e. delegates from firms (corporations), trade unions and the state. Extraparliamentary political processes are those which gradually become decision-making central area;
- parliament's sovereignty and citizens' power in their capacity as electors are undermined by economic changes, political pressures and organizational developments. New flexible ways of negotiation replace more complicated mechanisms of decision-making and public authorities.

The erosion of state's democratically-minded basic political institutions is a real and dangerous problem for the future of pluralism in our country. This must be thought-provoking for those who choose the means of cooperation, mode and ways of readjusting the relations between the state and interest groups.

³² David Held, *op.cit*, p. 216-217.

3. POLITICAL PARTIES: NATURE, ROLE, DOCTRINES AND CONSENSUS*

Political parties are the most important and dynamic institutions of a democratic society and according to P.P. Negulescu, the main organs of constitutional life¹. They represent a real turntable in a country's political and economic system through the role played in the building and operation of the governing democratic system, the political and economic orientations which political parties impart when they come to power.

Parties' topics are quite extensive, diversified and contradictory. In view of the aims of this work we shall confine our analysis to several more important aspects: the parties and the constitutional regime, political parties' specific behaviour in relation to other organizations' conduct; the need for political parties in the life of modern representative constitutional democratic states; the main characteristics defining political parties and their leading ideas; parties' relationships with elected representatives and with the electors defining of relationships between political action and economic theories; the main archetypes of economic policy doctrines within the Euroatlantic area; the problem of consensus.

3.1. The parties and the constitutional regime

By their mere existence in the political and social life, by their activities in line with their doctrines and political programmes and within the limits stipulated by the constitution and the laws of the country, political parties constitute the architects of the constitutional regime, and represent - according to Dimitrie Gusti - a social motive power, a "causa movens" of any constitutional regime². As Dimitrie Gusti points out, "...just as motor nerves set the muscles in motion, and through them, the human skeleton,

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¹ P. P. Negulescu, *Partidele politice*, Cultura Națională, București, 1926, p. 49.

² Dimitrie Gusti, *Partidul politic*, în *Arhiva pentru știință și reformă socială*, Institutul Social Român, București, 1993, p. 1.

political parties and doctrines impart certain guide-lines to a constitutional regime³.

Political parties are an integral part of the constitutional life of a country, and their configuration and mode of operating represent, with some approximation, a country's society restructuring into social structures and groups, a picture of the degree either of division, or coalescence of society's component communities with their interests and specific fighting practices in order to accede to power. If a party represents a part of community⁴, the other parts of communities imply the existence of other competing parties ready to fight in order to come to power with the aim of translating their political programme into practice.

3.2. Political parties' specific behaviour

The behaviour of political parties is in line with the overall behaviour in the political sphere. During its performance, the power generates authority and, at the same time, determines certain behaviours.

What distinguishes political behaviour from other behaviours?

If we compare, for instance, the behaviour from the two spheres – economic one and political - it appears that in the economic sphere prevails the rational, objective act which is efficiently guided towards increased economic power, while in the political sphere, the behaviour is rather an attitude in which the volitive act is stronger, has a greater emotional significance, and the logic of adopted actions is specific to the goals of conquering or maintaining political power, of increasing personal power or that of the group one represents in society. Opinions were expressed according to which there is a similitude between the conduct and behaviour of parties and of armies, both aiming at making conquests, of course, each in different conditions, with specific means and goals. This seems to be valid only in the case of parties with totalitarian ideologies and doctrines and, partially, of opportunist parties which elude the control exercised by society.

In conditions of a multi-party society, where the political mechanism operates on the basis of competition and within the limits imposed by the constitution, such an analogy is groundless (with the exceptions mentioned), as they - the parties – are approved or penalized

³ *Dimitrie Gusti, Op. cit., p. 1.*

⁴ Etymologically speaking, the word party comes from the latin <pars>, which means part.

by voters for their doctrines as well as for the tactics and strategies adopted, including the means they use.

The existence of political pluralism, as well as of parties' regulations (stipulated by the Constitution and by the law) based on the principle of competition among parties are designed to maintain the control of civil society over parties' activity and behaviour, whether they are in power or in opposition.

3.3. The need for political parties

The parties are necessary in order to ensure the functioning of society's democratic governing mechanism. The enemies of democracy have always criticized and rejected the existence of pluralism in countries' modern life. With a view to strengthening their plea addressed to a population unfamiliar with democratic mechanisms, on a general background of corruption, poverty, lack of social organization and in the conditions of a society torn by contradictions, extremist organizations - communist, fascist, neofascist, etc - in their desire to come to power by eliminating their opponents, set out by characterizing the pluralistic system and its component parties as a futile system, with parasitic outgrowths risen on the country's social body.

In fact, the centuries old experience accumulated by peoples and modern countries proves, on the one hand, that all dictatorships represent deviations from the normal course of social life and cause many losses, sufferings and social upheavals. On the other hand, the same secular experience tells us that modern societies are compelled to resort to a democratic organization system, which should make it possible for the population to find itself in a position to delegate its chosen representatives and invest them with the power to make laws or decide upon the norms or regulations by which social life is governed and laws are applied⁵.

It would be ideal if decisions concerning problems of interest could be taken directly just by the citizens themselves. Practically, however, this is not possible. Therefore it is resorted to the method of selecting the persons who represent all strata of population in making and implementing decisions, they - the chosen persons -being vested with power in this respect. The method of representation, however, implies the condition that the selection be conducted in a knowledgeable way, that is the electors must be aware of the moral, behavioural traits, as well as the competence and political convictions of their representatives, so that they share the

⁵ P. P. Negulescu, op. cit., p. 24.

views of those who proposed and elected them, taking into account that the society is not homogeneous but composed of various groups and strata with specific interests, besides those of a general character.

Political parties are just the organizations which, on the one hand, define societal problems through public debates and find their solution, and, on the other hand, find and propose to the electorate those representatives who could sustain their interests in the elaboration of some laws, in their implementation and, at the same time, guarantee their reliability and steadfastness in upholding certain principles and in the practical resolution of problems.

Practically, without the organization of parties, the implementation of a state's democratic governing mechanisms would not be possible as no alternative governing project or programmes would be formulated and made known to the population through public discussions, the alternative governing teams would not, be created and prepared, no real competition could be exercised in electing the representatives selected according to the criteria sanctioned by the competing parties, the elections would take place at random, as it would be impossible for the voters to select by themselves such a large number of representatives knowing neither their political orientation, nor their competence.

By contradictory discussions and mutual criticisms between the governing party and the opposition, as well as by electoral propaganda, the economic and social problems of the country could be brought to light⁶.

⁶ *To the question "what is the utility of political parties" P. P. Negulescu gives the following answer: "On the one hand, their propaganda, by the contradictory discussions which they generate regarding the current issues strongly contributes to the enlightenment of public opinion and thus helps peoples to effectively govern by themselves, as it gives them the possibility to know their own mind and what they must choose at the polls, when the fundamental act of constitutional life is realized. And in the decisive moments when cardinal problems in a people's life are decided upon - only parties' intensive and systematic action can fire its broad masses, irresistibly pushing them with enthusiasm oil the path of inevitable sacrifices.*

The question could be raised whether this task of enlightening the voters and of animating popular masses could not be carried out by isolated individuals, not enrolled in political parties. There is nothing against this in principle, but it would encounter huge difficulties and would probably remain futile. Such a far-reaching activity which - at the same time - should be of a long duration in order to bring significant results like that claimed by political propaganda, exceeds the powers of an isolated individual. Only political parties which have numerous agents and large funds, indispensable for the payment of trips, meetings, printed materials, etc. can effectively penetrate broad masses of the people in order to influence them

At the same time, the implementation of economic reforms is part of a complex political process in which political parties play the main role. The reformers, representing persons or groups of persons, in order to materialize their ideas, need popular backing, the majority of votes; only then do they succeed in seeing their projects realized. For this purpose, they need an adequate organizational framework for publicly debating the issues, persuading public opinion and, in this manner, gaining popular support at the polls and, finally, the support of parliamentary majority and of the government⁷.

3.4. Characteristics and requirements

In view of the important role played by political parties in the process of the democratic governing of society, certain characteristics and requirements come to the fore in their construction and operation which, in fact, define the main features which a modern party must possess in order to successfully compete for the democratic governing of society. Briefly, these features are⁸:

significantly" (P. P. Negulescu, *Partidele politice*, Cultura Națională, București, 1926, p. 26).

⁷ The reformer cannot realize his ideas unless he succeeds in acquiring, in keeping with the constitution, the legislative and executive power - points out P. P. Negulescu. He must gain, through elections, the majority of parliamentary seats and form the government. Only then can he translate his projects into laws and apply them.

However, the reformer can never obtain this result in constitutional states, if he remains isolated. He must by all means gather around himself a number as large as possible of adherents, whom he should organize into a party firstly in order to start propaganda for the acceptance of his ideas in case of elections, and then fight in the elections for gaining the majority of mandates. Thus, if the reformer remains isolated he cannot leave the sphere of abstract ideology and his activity maintains rather a literary character, in the scientific meaning of the word. He cannot move from words to deeds. It is possible, too, - and this is the most frequent case - that the reforming ideas are not generated by a single individual, but spring from the needs, more or less felt and more or less clearly perceived by the largest strata of the people. Even in this case, they do not succeed in gaining prevalence unless they are backed by an organized party that conforms with the constitutional forms required for their realization. (P. P. Negulescu, op. cit., p. 27-28).

⁸ *Widely debated characteristics of democratic parties are to be found in: Dimitrie Gusti, op. cit., p. 4-10; P. P. Negulescu, op. cit., Anthony Downs, An Economic Theory of Democracy, Harper and Brothers Publishers, New York, 1956, p. 24-34.*

a) political parties represent coalitions or associations to which freely adhere individuals who have certain common goals and cooperate among themselves in order to realize them; free adherence makes this type of coalition different from other formations - family, ethnicity, etc. - to which individuals belong through birth, that is independently of their will;

b) any individual can freely adhere to parties, with the condition, however, that he or she should be citizen of the country, irrespective of nationality;

c) political parties are associations with a permanent character, legally constituted according to regulations and goals stipulated for in their official statutes and programmes, in keeping with the constitution;

d) political parties - as citizens' associations - strive politically for the attainment of a controlling position - through legal means (propaganda and elections) - of the governing apparatus made of physical, legal and institutional equipment which the government uses with a view to implementing its specialized role within the division of labour⁹;

e) political parties do not represent associations as mere collections of individuals, but as comprehensive coalitions of groups of interest broadly defined and founded on mutual trust¹⁰.

Their members pursue not only some personal interests, but also general interests and ideas, at groups' and society's levels, regarding social, economic and ideological conditions, their guiding or moderation under the form of currents or doctrines, activating or tempering them. In an attempt to characterize the parties according to interests and ideas, Dimitrie Gusti notes: "there are parties which lay the stress more on economic interests, others on political, religious or philosophical ideas; in fact, however, the idea, in order to carry power is always accompanied by an interest, and the interest cannot be realized without the idea; interests and ideas grow and are closely intertwined, even when the idea seems only the façade and outward alluring covering of interests, and the interests, simple, brutal obstructions of ideas¹¹. Whenever political groups are exclusively preoccupied with personal interests, Dimitrie Gusti does not qualify them as parties but as cliques and coteries¹²;

f) political parties are guided, in their quest for coming to power and governing the country, by programmes which represent, on the one hand,

⁹ Anthony Downs, *op. cit.*, p. 24

¹⁰ Gianluigi Galcotti and Albert Breton, *An Economic Theory of Political Parties*, Kiklos, vol. 39, 1986, fasc 1, p. 47-48.

¹¹ Dimitrie Gusti, *op. cit.*, p. 7.

¹² Dimitrie Gusti, *op. cit.*, p. 8.

the product of a historical situation common to all parties, fact that unites them, and on the other hand, the product of economic

interests and of differing political ideas, which, in fact, distinguish them one from another and constitutes the ground for political disputes¹³ and motivates competition;

g) the drafting of programmes and devising of actions are founded on different doctrines which means the total sum of fundamental principles and theses of a political, scientific and religious system¹⁴.

In Virgil Madgearu's opinion, there are two constituent elements of a political doctrine¹⁵: *conception of the social situation and evolution and a social ideal*. Referring to the general goals of doctrines, P. P. Negulescu points out: "Choosing between parties means choosing between doctrines and the doctrines seem fraught with grave consequences. Some wish to speed up the evolution of peoples, others want to delay it, apart from the political and social forms which they attempt to impose.

In the modalities of devising political programmes and actions - founding them or not on doctrines - there are two extreme poles:

1. Main political parties which degenerate into purely doctrinaire parties, run according to imaginary theoretical models that have no connection with reality or with the consequences of real or practical life;

2. Opportunist parties, whose action is based not on doctrines but on the purpose of governing, which degenerate in routinist and immoral parties resorting to unworthy means of combat^{16,17}.

Depending on the criterium of programmes and actions being founded on doctrines, Max Weber classifies political parties into opportunist parties, class parties and doctrinaire parties¹⁸, and Virgil Madgearu makes the following classification:

¹³ *Dimitrie Gusti*, op. cit., p. 18.

¹⁴ Micul dicționar enciclopedic, *Editura Științifică și Enciclopedică, Bucurști, 1978*.

¹⁵ *Virgil Madgearu*, *Doctrina țărănească, Arhiva pentru Știință și Reformă Socială, Institutul Social Român, București, 1923, p. 65*.

¹⁶ *P. P. Negulescu*, op. cit., p. 5.

¹⁷ *Dimitrie Gusti* points out that an opportunist party does not strive to convince the electorate through honest means, but - exclusively - for obtaining success at any price and by any means. He mentions five models which the opportunist party uses with all its skill in its propaganda aimed at imposing its will:

1. *the art of seducing, insinuating and being liked*; 2. *the art of corruption*; 3. *the art to calumniate, lie and mistify*; 4. *the art of plotting*; 5. *the art of terrorizing* (*Dimitrie Gusti*, op. cit., p. 20).

¹⁸ *Max Weber*, *Wirtschaft und Gesellschaft, Grundriss der Sozialökonomie* (quoted after *Virgil Madgearu*, op. cit., in loc. cit.)

1. opportunist parties, exclusively power-oriented, covering the advantages of power (for their leaders and adherents);
2. programmatic or doctrinaire parties guided by certain concrete targets regarding the given social situation;
3. general ideas' parties, animated by a certain world outlook;
4. class parties, which set their political directive in line with the interests of a social class and with its historical role in the social evolution.

Madgearu points out that it is impossible to make a net distinction between a programmatic party and a party of general ideas. At the same time, he stresses that all the parties have as a sustenance base a certain social structure, and each class, in order to realize its claims and influence politically the state order, should create its own party¹⁹.

3.5. Political parties as mediators and guarantors of relations between the elected representatives and the electors

Under the pluralistic parliamentary political system, relationship between citizens and elected representatives could not practically take place without the existence of political parties, without their activities. Therefore, within the real representative political system, the relationship between citizen and their elected representatives is mediated and guaranteed by political parties.

Why is there a need for the mediation and guarantee of such relationships? For instance, the electing citizen is asked to make a single option for one candidate among several, depending on the promises made. The changes which can take place in the country's socio-economic situation, as well as in the candidates' situation, may cause the voluntary abandonment of promises, which can seriously affect the prestige of the party that sustained the candidature of those elected, and, at the same time, provoke voters' greatest disappointment. The abandonment of promises could be also caused by certain candidates' traits of character, as well as by the lack of control over their behaviour and actions from the part of electors. Only well-organized political parties can offer the guarantee of political performance. They make it possible, on the one hand, for the citizens to exercise a certain control over their elected representatives so that they fulfill their promises and, on the other hand, they allow the representatives to check on the consistency of citizens' support. In such a way, the parties

¹⁹ Virgil Madgearu, *op. cit.*, p. 65-66.

constitute the place where the promises and expectations or hopes of the citizens and representatives are transformed into implicit contracts²⁰. Under these contracts, relations between the two sides (citizens and elected representatives) are based on trust. The parties, in this case, have the role of guarantors of the trust between parts. Knowing that trust represents the hope which a person has that another person will honour a promise, political parties represent networks of relations based on trust. The trust established among persons belonging to a party, gradually turns and accumulates into trust in the respective party. The explanations are the following:

- a) the party gathers people together and offers them the opportunity to interact. From these interactions they find out that they could win when they trust one another;
- b) unlike isolated individuals, a political party, conducts its activities on a long-term perspective and, therefore, it adopts long-term programmes and actions which transcend economic cycles and generations;
- c) the political party can control the activities of representatives elected to hold public offices and can determine whether or not they have kept their promises to the electorate;
- d) mutual trust among members of a party and, especially, among its leaders radiates confidence even outside, that is into the mass of electors; competition for power and discord inside the party propagate distrust outside it and alienate the voters²¹. The trust incorporated in such a way in the parties is gradually accumulated, depending on the quantity and quality of the facts, historical experience, the intensity of historical events and party's position towards events and the consistency it defends and applies its principles.

Trust is in a continuous variation in time, it can grow stronger function of the consistency in defending principles, keeping promises made, furthering general interests as well as those of the voters, etc. Thus confidence assumes the characteristics of some public capital goods which can be accumulated or lost but cannot be sold or bought on the market²². The "existence" of credible political parties means the existence of a political life based on an open and sound competition that draws society's elites into political activity.

²⁰ M. G. Galcotti, A. Breton, *op. cit.*, p. 54.

²¹ *Idem*, p. 55.

²² K. Arrow, *The Limits of Organization*, Norton, New York, 1974, p. 23.

3.6. The relationship between the political action of parties in the Euro-Atlantic Space and the economic theories

Parties' political actions more than any other social actions consciously undertaken by different organizations are accomplished on the basis of programmes thoroughly founded on concepts, theories and methodologies elaborated by social sciences and on their confrontation with real life situations. Economics occupies an important place in the foundation of programmes, particularly since the economic elements has the overwhelming share in the set of political actions undertaken by all major political parties. As a matter of fact, European Union's experience indicates that no political action can be conceived without a thorough up-to-date knowledge of economic policy's theories. Improvizations, empiricism and lack of systematic scientific information are excluded from the inter-party political competition, as well as from the political contracts within the framework of European organisms.

Generally speaking, economic theories appear and develop as a result of some practical necessities and in the context of a certain ideational ambiance of the respective period, which puts its stamp on the content of elaborated theories; few are the cases when important economic theories are subordinated to political doctrines.

In contrast with political doctrines - including those of political economy - economic theories have a pronounced technical character, appear as working tools and are politically neutral. They are waiting for their practical utilization through the intermediary of political doctrines which endeavour to accomplish several main specific goals, such as:

- . individual freedom, efficiency and social equity or justice in the case of neoliberal doctrine;

- . individual freedom, efficiency, social equity or justice and fraternity or solidarity for christian mutual assistance, in the case of christian-democratic doctrine;

- . individual freedom to choose (achievable when there are no inequalities); equality of rights and opportunities and fraternity as a form of cooperation actually manifested in social solidarity, in the case of social-democratic doctrine.

Political parties - defined by doctrines based on the goals mentioned - make use of a mix of economic theories which they decode and apportion according to the practical necessities and taking into account the concrete

economic and social situation, the perception of realities and the interests of social groups represented by the respective parties.

Economics, together with other social disciplines, has created a large volume of economic knowledge materialized in notions, concepts, analysis tools, working methodologies and theories. Their mastering and application imply the undertaking of some collective actions, as well as the state's intervention in the economy in different modalities and degrees function of political purpose pursued by the parties and of other above - mentioned criteria. In the following we shall bring up some relevant points in sustaining these assertions.

1. Classical and neoclassical economic theory (from the time of Walras, Pareto, Marshall, etc., including the period of the first mathematical models), as well as the monetarist economic theory, describe market relationships with perfect competition. In those days, according to Smith and other economists, the state intervened in the economy especially for the creation of an institutional market framework and to watch over its implementation, as well as for defence and the undertaking of large public works.

Demand and supply on all markets (commodities, capital, labour, force, etc.) were elastic enough and prices carried the information and made the connection between consumers and producers in order to realize the allocation of resources without too many difficulties. This has been - with a certain approximation, the situation described by the classical and early neoclassical economic theory, theories used quite successfully, by traditional liberalism.

2. With the increase in complexity of economic processes, as well as with the expansion of economic exchanges at national and international levels, demand and supply on the commodities and labour markets have become more rigid (more inelastic), prices lost, in some areas, their power of accurate information, especially because of the domination of some markets by monopolies and oligopolies; the impact of external factors has increased, the public sector has grown, using other type of relations than the market-type, and other kind of decisions, namely political and administrative. Besides economic cycles which have become traditional whereby often enough contradictions were gradually disposed of, without the intervention of public authorities, there have appeared in the economy large scale, chronic derangements reflected in the growth of unemployment, the bankruptcy of numerous businesses. Discrepances regarding the accumulation of wealth and the level of incomes obtained have particularly grown. The most dramatic moments were those of the great crisis of 1929-1933 and of the stagflation of 1970-1980.

In an attempt to explain the new phenomena and in order to implement some measures under the authority of public power directed at the elimination of either the causes or of the harmful effects, there have appeared and developed a series of new theories such as, for instance: Chamberlin's monopoly and monopolist competition theory, Keynes' macroeconomic equilibrium, Wicksell and Musgrave's theory of public finances and public economy, Pigou's theory of externalities and welfare, Coase's social costs theory, as well as Simon's theory of organizations, Heckscher and Ohlin's factor endowment theory, Porter's theory of competitive advantage, Schumpeter, Kalecky and Kondratief's theory of economic cycles and technical progress, Knight, Baker, Becker and Schultz's theory of human capital and Solow's theory of economic growth. A crucial moment is represented by the work *A theory of justice* by Rawls, which attempts to bring into accord the principle of equity with that of efficiency.

At the same time, the institutionalist theory, which developed rapidly during the last two decades (Coase, North, Williamson) gives the economic policy the methodology and conceptual tools needed in order to elaborate and adopt the rules necessary for the organization and management of the economy and the society. The rules are comprised in the constitutional system, the rights of property, the legislative system regarding the regulations and deregulations a.s.o. The institutionalism offers the economic criteria for improving public and private organizations, and puts into effect rules directed at reaching the economic and political goals proposed.

All these have constituted an impressive and very precious stock of economic and social knowledge at the disposal of political parties. The economic knowledge acquired cannot be applied as such. It ought to be transformed by the political parties (political scientists) in principles and methods of leadership and economic policy tools. Therefore, the knowledge must be adapted to the specifics of economic policy actions. These economic policies include fiscal, budgetary and monetary instruments (taxes, interest, budgetary expenditures, etc.) for the achievement of stabilization and macroeconomic equilibrium (the reduction of inflation and unemployment, the growth of production), juridical regulations and deregulations for controlling certain phenomena (among which: monopolies' behaviour, products' quality assurance, consumer protection, environmental protection, etc.), structural adaptations or adjustments, stimulation policies, supporting and punitive measures, sectorial and regional policies, social policies in the field of education, health, culture, science, arts and social securities.

3. It has been noticed, however, that the solving of economic and social problems cannot produce the expected results by using only economic policies based on the theories mentioned. Hence, the particular development of the economic theory of welfare (and on this basis the theory of the welfare state), the economic theory of the public sector, the theory of public choice, the theory of bureaucracy, the theory of industrial relations. These theories have offered the basic ideas for the elaboration of the instruments needed for the expansion and management of the public sector and for further involving the state in the economic and social life's mechanisms, for solving some social problems. It was also found, following some studies, that not all the economic and social problems can be solved by the intervention of public institutions or through regulations. Therefore, the need has risen to also resort to the moral precepts of religious denominations and, in the first place, of the christian faith which is predominant within the Euro-Atlantic space.

At the same time, it was found that economic problems cannot be solved without social peace. Hence the appearance and development of neocorporatist theory, as well as of negotiated economy.

Based on the knowledge offered by the above - mentioned theories, as well as by theories of some social disciplines and subdisciplines, the contemporary parties in the Euro-Atlantic area realize a mix of macro and microeconomic policies which they combine and make use of in specific ways, so that they best achieve their essential goals included in their respective doctrines.

3.7. Main groups (archetypes) of economic policy doctrines in the Euro-Atlantic Space

Both among economic theories and among political parties there appear an impressive number of thought currents, together with a wide variety of ideological or doctrinaire platforms expressed by parties' political programmes. In order to put things in a better perspective - with the aim of being able to explain or interpret them, there were attempted certain doctrinaire classifications of political parties based on several criteria: the degree of state's involvement in the economy, resource allocation, represented social groups a.s.o. This fact has maintained a certain degree of ambiguities, confusions and inconsistencies in theory and practical actions.

Only recently has been accepted on an ever larger scale the idea that the doctrinaire classification be made according to the essential political

goals pursued by parties, these goals prompting the real ideological attitudes and major political options. Essential political goals lie at the basis of the elaboration of the model and strategy of action and fundamentally characterize a party's political doctrine²³.

All the other above-mentioned criteria including the degree of state's involvement in the economy, represent either technical characteristics or subsidiary or functional characteristics which should support the achievement of essential political goals and actions. For instance, the alternatives of resource allocation through market or political or administrative mechanisms: although in practice politicized in reality they do not represent a main criterium of classification of a political economy doctrine. A more thorough analysis of this problem indicate that the option depends more on the technical side, finally linked to the characteristics of goods and the social costs or transaction costs, as well as to the performance that the socio-economic system can realize in the case of each of chosen alternatives.

Traditionally, in the socio-political life of most Euro-Atlantic countries the following doctrines came to the fore, using the main political goals as their definition criteria, such as:

1. Classical liberalism (presenting more theoretical and historical interest than actually practical):	individual liberty and efficiency.
2. Neoliberalism	individual liberty, efficiency and equity or social justice.
3. Democratic socialism	individual liberty to choose, equality of rights and opportunities and fraternity as a form of cooperation.
4. Christian-democracy	individual liberty, efficiency, equity or social justice, fraternity and Christian mutual assistance

Given the fact that neither classical liberal and neoliberal doctrines, nor social-democratic ones could satisfy the needs of social, economic and real modern political life as well as all the social interests, towards the second half of our century a series of new doctrines

²³ *Nicholas Barr, The Economics of the Welfare State, Weidenfeld and Nicolson, London, 1990, p. 14-15; Etienne S. Kirschen and Lucien Morissens, "The Objectives and Instruments of Economic Policy", in Morris Bornstein (ed.), Comparative Economic Systems. Models and Cases, Irwin, Boston, 1989, p. 28*

appeared based on a combination of essential liberal, neoliberal and/or socialist political goals and on a series of other values of more or less audience with the public such as christian-democratic ones, environmental protection, social order, national or ethnic, or those based on certain - myths or ideals either historical or of providential personality. For instance, by grafting christian values on neoliberal principles in many countries in the Euro-Atlantic zone has resulted a very strong doctrine of large audience with the public - christian democracy.

In cases when some of the above-mentioned essential political principles or goals have been replaced with other values such as those of social, national or ethnic discipline, those, based on the class struggle, on myths or symbols, or whenever these values were attributed all but-exclusive importance, they turned into extremist doctrines. Obviously, they leave the democratic framework, as well as the Euro-Atlantic spirit.

Doctrines spring from specific socio-economic realities defined by the market structure, operating principles of economic mechanisms, as well as by the social structure and dominant values existing in society.

In order to attain their main political goals, the parties choose and combine the various economic and social policies as follows:

- The neoliberals choose and combine those economic and social policies which accept state intervention for solving the socio-economic problems which the market cannot resolve and for achieving social justice. They institute an adequate institutional system based on private ownership and on democratic principles, which should ensure individual's rights and obligations in society and stimulate competition, as a source of efficiency and a shield against the bureaucratization of socio-economic life.
- The Christian Democrats, compared with the neoliberals, stress the implementation of some Christian precepts in socio-economic policies, namely the adoption of Christian solidarity principle and of helping the weak and destitute. As there appear in society relations and phenomena which cannot be tackled by state intervention and by applying the law, it must be also resorted - maintain the christian democrats - to Christian moral, the conscience and the solidarity. They are against confrontations among interest groups. Instead of confrontations and economic and political pressures they promote with priority the dialogue and negotiations among groups of interest (employers and trade unions) in order to obtain social peace; the

state playing the role of mediator, yet within the limits of ensuring efficiency and preventing the expansion of bureaucratic system.

- The Social Democrats emphasize the social side within the economic processes by encouraging and extending to the maximum the role of the state in solving socio-economic problems and, in the first place, that of distribution. This has as effect the expansion of the public sector and increased budgetary expenditures, together with increased burden of taxes and levies, which more often than not affect economic growth and efficiency. At the same time, in order to attain social peace, the social democrats increase the role of neocorporatist institutions with the help of which there is achieved either the mediation by the government of some disagreements between groups of interest (and, in the first place, between trade unions and employers), or ensured tripartite relations (the governmental agency, trade unions and employers) for negotiations, or - finally - partnership relations are achieved under various forms: dialogue, consulting, participation in decision-making at the local, sectorial and national levels.
- The main characteristics defining the socio-economic conditions in which doctrines came into being, the characteristic elements of each doctrine, state's characteristics and functions, as well as the policies regarding interest groups are presented in the following synoptic table:

Synoptic regarding the main groups (archetypes) of economic policy doctrines in the Euro-Atlantic space

Doctrines Definition of characteristics	Classical liberal (Presents rather theoretical and historical interest than actually practical)	Neoliberal	Christian-democratic ^{*)}	Social-democratic ^{**)}	Main points of consensus
1. Main political goals defining groups of doctrines	Individual liberty; efficiency.	Individual liberty, efficiency; equity or social justice.	Individual liberty, efficiency; equity or social justice; fraternity or solidarity for mutual christian assistance.	Individual liberty to choose achievable when there are no inequalities; equality of right and opportunities; fraternity, from of cooperation actively manifested trough social solidarity.	Conservation of democratic values: - individual liberty, - efficiency, - social justice at national level and that European Union through the creation of adequate institutions
2. Prevailing socio-economic conditions in which doctrines appear: the structure of market	The existence of a large number of small units in the same branch; liberty to enter and leave	Alongside a large number of small units which are in relations of perfect competition, there is a limited number of large	Approximately the same market structure is maintained with the addition of the development of	The presence of large oligopolist and monopolist economic units, alongside a larger number of small	General acceptance of capitalist economic structures based on competition, as well as a public sector; the unification of European

^{*)} All the economic doctrines of Christian-oriented parties are included in the group of Christian democratic doctrines, leaving aside their differences.

^{**)} All the economic doctrines of social-democratic, socialist and liberal-socialist parties are included in the group of social-democratic doctrines, leaving aside their differences.

Doctrines Definition of characteristics	Classical liberal (Presents rather theoretical and historical interest than actually practical)	Neoliberal	Christian-democratic ^{*)}	Social-democratic ^{**)}	Main points of consensus
economies and operating principles of economic mechanisms.	the market; the price is determined on the market on the basis of supply and demand; competition is considered perfect so that resource allocation is made through market mechanism with the help of the "invisible hand"	economic units – oligopolies and monopolies which pursue a policy of imposing high prices by correspondingly reducing the supply. Monopolist competition and the negotiation among monopolies appear in the new structure. Alongside the private sector, the public sector has developed which is run by political and administrative decisions. In this manner the mixed economy has	small units in agriculture, industry and services, through the promotion of special policies, as well as the development of a network of social assistance and charity institutions on a voluntary basis within the civil society.	units, these forming the private sector; the relatively strong development of the public sector with its specific types of decision. By stressing the distribution and mediations between interest groups, the negotiation system is expanded alongside the competition one. In certain segments of the economy resource allocation is made through the negotiation system.	markets for the achievement of free circulation; market broadening in the European Union by receiving of new member states

Doctrines Definition of characteristics	Classical liberal (Presents rather theoretical and historical interest than actually practical)	Neoliberal	Christian-democratic ^{*)}	Social-democratic ^{**)}	Main points of consensus
		emerged.			
3. Main characteristic elements of each doctrine	<ul style="list-style-type: none"> - Liberty and individual independence is above all; - private ownership as man's natural right which ensures his independence; - the absolute value of the market mechanism which ensure efficiency and protects individual liberty. 	<ul style="list-style-type: none"> - Individuals as distinct, single parts which make up the collectivity; - private ownership not as an end in itself but as a means of achieving economic goals; - real individual liberty (not formal) as absolute priority; - the principle of income distribution in the name of equity and maximum efficiency; - competition as engine of 	<ul style="list-style-type: none"> - individuals as distinct, single parts which make up the collectivity; - private ownership as a guarantor of individual's liberty and independence in relation with the collectivity and as a means of achieving economic goals; - individual liberty as an absolute priority; - christian 	<ul style="list-style-type: none"> Collectivist and cooperation concepts take the place of individualist ones; - the type of mixt economy implies the coexistence of private ownership alongside the public one; - the cooperation between trade unions and employers; - income distribution policy takes place with the help of the state; 	<ul style="list-style-type: none"> There are accepted as common points; - the guarantee of individual liberty and of the right of private ownership; - promotion of competition system; - coexistence of the market sector with the public and corporativanes; - blending of the competition system with that of negotiation. <p>Differences between doctrines consist rather in their degree of application and in</p>

Doctrines Definition of characteristics	Classical liberal (Presents rather theoretical and historical interest than actually practical)	Neoliberal	Christian-democratic ^{*)}	Social-democratic ^{**)}	Main points of consensus
		<p>development; - the private sector alongside the public one, which confers a missed character to the economic system; - the predominance of confrontation relations among groups of interest and the realization of weak mediation actions between groups of interest.</p>	<p>solidarity and equity in income distribution, in close harmony with maximum efficiency; - competition as the engine of development with the assistance of the weak and destitute; - the existence of the private sector alongside the public one. (This is justified by the specific technico-economic characteristics</p>	<p>- collective actions including by the public power are practised in order to achieve economic goals and objectives; - negotiation of competition (confrontation) in various segments of socio-economic life; - achievement of main political goals is made within the capitalist system.</p>	<p>philosophical systems.</p>

Doctrines Definition of characteristics	Classical liberal (Presents rather theoretical and historical interest than actually practical)	Neoliberal	Christian-democratic ^{*)}	Social-democratic ^{**)}	Main points of consensus
			and by the need for solving social problems. Thus the market economy assumes a mixed character); - state mediated negotiation replaces confrontation among major interest groups		
4. State's characteristics	Protector state involved in the creation and defense of the legal framework and market institutions.	Productive state-involved in the solving of market's economic shortcomings (limits) and of some social problems in order to ensure efficiency and	Productive and mediator state – committed to solving market's shortcomings by applying adequate	Mediator state (corporatist) committed to mediating diverging interests and achieving compromises	Protector and mediator with the acceptance of powers' dual character by relinquishing part of the national states' authority to the European Union as a

Doctrines Definition of characteristics	Classical liberal (Presents rather theoretical and historical interest than actually practical)	Neoliberal	Christian-democratic ^{*)}	Social-democratic ^{**)}	Main points of consensus
		attain equity or social justice.	policies, as well as to ensuring social peace by mediating or reconciling the interests of various social groups.	between interest groups in order to ensure social peace as well as involvement in the realization of extensive social programmes for the attainment of political goals.	suprastatal (federal) organ through the creation of a Community's institutional system with the compulsory application of European Union norms and decisions in all Community's states.
5. State's role and economic functions characteristic of doctrines	Establishment of basic rules of the game and of the legal framework for facilitating economic transactions on the commodity, capital, labour	- State's involvement in the elaboration and implementation of adequate economic policies for the elimination of market's shortcomings consisting of regulations regarding monopolies' control,	- Implementation of the same economic policies (as in the case of neoliberalism) for the elimination of market's shortcomings; - implementation of social	- Implementation of the same economic policies for the elimination of market's shortcomings, as well as for the development of the public sector with the aim of increasing the	- Creation of market institutions and the monitoring of their operation; the elaboration and implementation of economic policies for the elimination of market's shortcomings, elimination of economic

Doctrines Definition of characteristics	Classical liberal (Presents rather theoretical and historical interest than actually practical)	Neoliberal	Christian-democratic ^{*)}	Social-democratic ^{**)}	Main points of consensus
	and securities markets; protection of private property, defence of individual rights and liberties (the creation and defence of market institution)	the production of public goods and services that cannot be produced in the private sector, granting of facilities by the state for the solving of some social problems; supplementation of the lack of information or of their high cost; elimination of macroeconomic disequilibria	programmes and of policies aimed at developing small and medium sized enterprises, as well as the middle social class, by using economic incentives, the guarantee of ownership, educational and economic support and technical assistance	production of goods subject to state control; - implementation of vigorous income redistribution policies and of the development of social protection institutions networks	imbalances, state's involvement in solving social problems; - creation of suprastatal European Union institutions (parliament, government and monetary system) for the coordination and implementation of European Union policies regarding: - commodity, capital and persons;
					- educational system - infrastructural system (transports and telecommunications);

Doctrines Definition of characteristics	Classical liberal (Presents rather theoretical and historical interest than actually practical)	Neoliberal	Christian-democratic ^{*)}	Social-democratic ^{**)}	Main points of consensus
					<ul style="list-style-type: none"> - unified weights and measures system; - regional development projects; - achievement of common projects; - creation of a common security system; - unified antiterrorist, antidrugs and organized crime fighting system; - creation of a unified environmental protection system.
6. Policies for settling social conflicts and ensuring social peace	Pluralism, with actions organized by the pressure groups	- Weak corporatism with negotiations between trade union federations and employers'	Medium corporatism with negotiations between trade unions	- Strong corporatism with participation in the negotiations of trade unions	The trend to create at the E.U. level of some institutions that coordinate negotiation policies for ensuring

Doctrines Definition of characteristics	Classical liberal (Presents rather theoretical and historical interest than actually practical)	Neoliberal	Christian-democratic ^{*)}	Social-democratic ^{**)}	Main points of consensus
	represented by trade unions and professional associations; predominantly political pressures on and lobbying the Parliament and Government by interest groups, fragmented and concurrently.	associations (at various levels) for the formation and implementation of socio-economic policies in limited or specific medium sectors; - consultation, implementation and realization of national policy; - collective negotiation at unit's level; - negotiation at national level only with certain firms or specific economic sectors; - harmonization of	federations and employers' associations (characteristics are similar to the preceding corporatist form as regards the national political process); collective negotiations at sectorial and national levels with temporary successes regarding the harmonization by the state of income policy.	confederations and employers' associations at summit, with governmental coordination or mediation; the formation and implementation of policies in those interdependent areas which are of cardinal importance for the management of economy and which have social implications, as for instance, job creation, inflation control and the	social peace.

Doctrines Definition of characteristics	Classical liberal (Presents rather theoretical and historical interest than actually practical)	Neoliberal	Christian-democratic ^{*)}	Social-democratic ^{**)}	Main points of consensus
		income policy, difficult to implement.		implementation of social insurance, the harmonization of income policy.	

A series of renowned economists of vast economic, philosophical and historical culture among which Pareto, Schumpeter, Kalecky, Galbraith have inferred, based rather on logical reasoning (not on the basis of long-term empirical studies), that there is an implacable historical trend according to which the more or less distant future of the development of societies belong to social-democracy. In fact, there is resumption on another plane of marxist theses. Without being seduced by any ideology or doctrine, but based only on objective and deep-going comparative studies of working mechanisms and the results obtained by the public sector and by the private one, both the economic school regarding the theory of public choice under the leadership of Buchanan and the new institutionalist school of Coase and North have succeeded in clarifying most of the things. The studies of the two schools have indicated the advantages as well as the limits and shortcomings of the public sector and of the interventionist policies pursued by the state in the private sector.

The numerous analyses conducted, on the basis of real facts, regarding post-war experiences, have pointed out the existence of much greater shortcomings in the decision system within the public sector than within the framework of market relationships, the first being extremely cumbersome, with huge waste of time, removed from the principle of efficiency and economic performance, biased or lacking objectivity, with actions oriented with priority towards income redistribution and in the interest of bureaucratic apparatus.

Based on these theoretical analyses and on conclusions drawn from the observations made regarding the functioning of the strong public sector created during and after the Second World War, in almost all Euro-Atlantic countries has gradually appeared a political current in favour of invigorating competition as a means of raising efficiency and economic performance and of eliminating bureaucracy by implementing vast privatization programmes, limiting public sector's expenditures, expanding decentralization in favour of the autonomy of economic and territorially administrative units and diminishing state's interference with private sector's functioning mechanisms.

3.8. The problem of consensus

In the preceding synoptic table we have pointed out the characteristic features separating the main groups of parties from the point of view of their economic policy doctrines. The differences regard as much the essential political goals as the policies pursued for the achievement of these goals. At

the same time, the differences refer to the order of priorities, as well as to the weight attached to some goals and policies.

3.8.1. The area of consensus

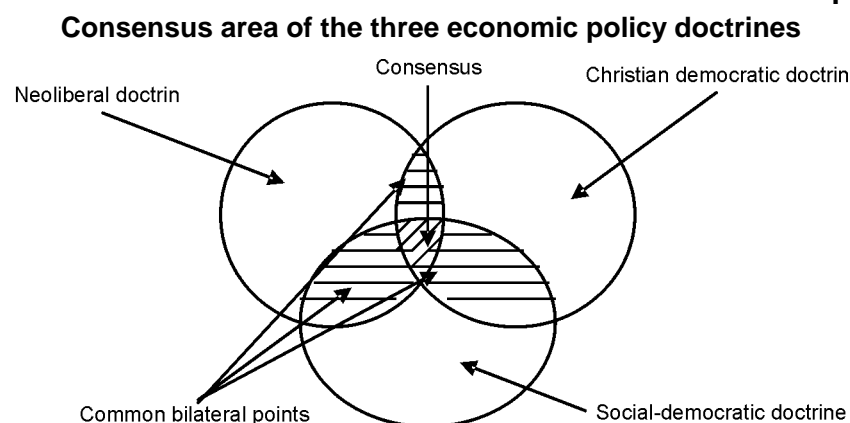
In the competition which they enter, the parties emphasize the existence of these differences, sometimes in an exaggerated way for tactical reasons, in order to accede to power. Of course, the differences are quite normal and they must be brought out in full relief in a democratic society based on a pluralist structure. It is well known, however, that a group or a society cannot ensure its long-term continuity when it is based only on differences both at the level of individuals and at the level of groups and organizations. Policies founded only on emphasizing and cultivating particularities lead to isolation, deep social disagreements and even to disintegrations of social groups.

The practising of exaggerated policies as regards the differences among society's component groups and, in the first place, between parties and between their doctrines, as well as the exaggerated insistence on contradictions - forgetting the existence of those common elements which must unite - bring about significant losses of social energy and resources. Even contemporary history shows us the way in which the exaggerated cultivation on a political plane of differences among social groups has degenerated into extremist, xenophobic, even criminal doctrines.

In democratic societies, where economic and social life takes place in a normal way, there is a common ground - more or less extensive - of understanding and cooperation among individuals and social groups, ground named social consensus. Consensus comes to ensure and cement social cohesion and to give the synergetic force necessary for the realization of great projects and socio-economic performances.

The converging points existing in the socio-economic life could not miss from parties' economic doctrines, taking into account that these doctrines represent in a concentrated form the main requirements of socio-economic development. Therefore, in spite of the differences among doctrines there are, however, numerous points of consensus, as shown in figure no. 1.

Fig. 1



This common area (consensus) is guaranteed or protected by a set of norms or rules known under diverse denominations such as: social contract, basic rules of social order, constitutional rules, constitutional contract²⁴. The points of consensus included in the last column of the above synoptic table and in the fig. 1, which politically reflects socio-economic realities and requirements, are supported by the basic rules of social order agreed upon either in writing or tacitly.

3.8.2. Theoretical foundation of consensus

At present there are numerous studies and even subdisciplines which analyse the problem of consensus. For instance, constitutional economics separated from the public choice theory, has come to encompass almost the whole applied research programme regarding consensus²⁵.

²⁴ *Political scientists and sociologists use the term social contract, while economists more frequently utilize the name of basic rules of social order or constitutional rules (James Buchanan, The Domain of Constitutional Economics, in Constitutional Political Economy, vol. 1, no. 1, 1990); The New Palgrave. The Dictionary of Economics, The Mac Millan Press/Ltd, London, 1987, vol. 1, (585-588); James D. Gwartney and Richard E. Wagner (eds.), Jai Press Inc. London, 1988, S. Gordon, "The New Contractarians, Journal of Political Economy, vol. 48, 1976, Fasc. 1/2 (307-319), Richard A. Musgrave, "Social Contract, Taxation and the Standing of Deadweight Loss", in Journal, of Public Economics, 49, 1992 (369-381).*

²⁵ *The notion of constitutional economics has been introduced by Richard B. McKenzie in order to define the central subject of a conference under the Heritage Foundation organized in Washington D. C. in 1982. By this term McKenzie felt the*

For the study of consensus political scientists are using constitutional political science. According to Buchanan, however, this term draws attention on the respective relevant phenomena but does not express the relevance and applicability of economics as a basic discipline in examining and evaluating the fundamental rules of social order. That is why Buchanan has adopted McKenzie's proposal to use the term of constitutional economics²⁶.

In fact, the term constitutional was utilized by Buchanan and Tullock as early as 1962 by which they meant a set of rules previously agreed upon and within the framework of which subsequent actions will take place²⁷. For the study of consensus Frey used the notion of constitutional contract interpreted as an economic policy instrument, considering that economics itself is more a science of contract than a science of choice, that is as Robbins has described it²⁸.

Both the nonconstitutional traditional economics and the theory of public choices point out that economic and political agents are guided in their actions and decisions by individual and group interests. In this context, all economic and political decision-makers unrestrictedly follow only their own interests. If these were really true society's economic and political life would become an ordeal, it would take place in an unbearable disorder which, probably, could not differ too much from life in the jungle where only most surprising and ferocious conflicts would occur with important losses for some and unwarranted gains for others.

A careful study of real facts conducted with the help of constitutional economics shows that things are totally different. Economic and political agents make their options on the basis of various sets of incentives and within an independent political and economic system with a series of

need to identify and isolate a research programme that was generated as an integral but distinct part of the subdiscipline public choice theory after three decades of existence. The introduction in the dictionary The New Palgrave (1987) of the term Constitutional economics in an article signed by Buchanan and especially the publishing, beginning in 1990, of the journal Constitutional Political Economy have laid the ground for a research programme in the field of constitutional economics (James M. Buchanan, "The Domain of Constitutional Economics", in Constitutional Political Economy, vol. 1, no. 1, 1990, p. 1).

²⁶ James S. Buchanan, *The Domain of Constitutional Economics*, in *Constitutional Political Economy*, vol. 1, no. 1, 1990, p. 1.

²⁷ James S. Buchanan and Gordon Tullock, *The Calculus of Consent. Logical Foundations of Constitutional Democracy*, Ann Arbor, The University of Michigan Press, p. VII.

²⁸ Bruno S. Frey, *Economic Policy by Constitutional Contract*, in *Kyklos*, vol. 32, 1979, Fasc. 1/2, 307--319.

restrictions and in which the government is an endogenous component part²⁹.

Attention should be drawn to the fact that constitutional economics does not replace the nonconstitutional or traditional economics. Researchers ought to analyse decision-maker's options through the prism of both disciplines. In the case of nonconstitutional economics the researcher assumes that the choice is made within some constraints exogenously imposed to those who make the choice. The constraints can be imposed by nature, history, past options, persons, laws, institutional arrangements, customs or conventions, budgetary restrictions related to the function of demand a.s.o.³⁰.

As far as the constitutional economics is concerned the researcher focuses his analytical attention on the problems of choice between several constraints or towards the option for rules of acting on political , and economic planes, or, in other words, towards the option for economy's fundamental functioning rules - institutional arrangements - which should ensure for instance, agents' liberty to opt for actions which minimize transaction costs.

Constitutional economic analysis attempts to explain the functioning characteristics of the set of alternatives of constitutional - institutional - legal rules which constrain the options and activities of economic and political agents, rules that define the framework in which agents' usual options are made. To this affect, constitutional economics implies a higher level of research than traditional economics; it must also incorporate the results of research carried out by the latter, together with many less sophisticated subdisciplines³¹.

In conclusion, constitutional economics' object of study consists of rules to take decision as, on the one hand, the postulation of the respective rules belong to the domain of constitutional options, and on the other hand, the main motivation of individuals and groups of individuals to resort to such rules has an economic character, the desire to reduce external costs generically named transaction costs.

While current (usual) options concern each individual in an isolated way, the options for rules concern all the individuals who make up the group or organization, becoming a problem of collective interest. But, in a democratic society, to adopt such rules means that the individuals forming

²⁹ Bruno S. Frey, op. cit., p. 307.

³⁰ James Buchanan, *The Domain of Constitutional Economics*, p. 3.

³¹ " *The New Palgrave. A Dictionary of Economics*, The Mac Millan Press Ltd, London, 1987, vol. 1, p. 585.

the social group or organization must agree upon these before the actions are taken³². That is why the need appears here of a general consensus. Otherwise, there appears the imminent danger of adopting rules which subsequently may generate discontent and social and economic instability.

Under such circumstances - for economists - there are two great categories of problems which must be subjected to systematic research: collective option's motivation and consensus' economic implications.

3.8.3. The motivation of collective option

The first category of problems is that regarding the move from spontaneous individual activity named private option to activities of collective interest subjected to certain rules agreed upon named collective options - either of corporative - type cooperation (semipublic), or public. At the question, what determines an individual to turn from private options to the collective ones, economists have given an outright answer specifically, that in democratic societies there is and must be mostly an economic motivation of the respective individuals.

Therefore, the changing - over from private options to collective ones should not necessarily be determined by specific ideological motivations but rather by consensual economic motivations. The switchover to the collective option is made to the extent that it brings economic advantages to the individual by reducing social or transaction costs (or whatever the utilitarians call the maximization of utility), including by diminishing risks or uncertainty of actions. An important aspect which ought to be mentioned for the analysis of options is the following: the change from one type of option to another is not irreversible, therefore it does not have an implacable historical character. Evolutions are rather cyclical determined by economic, technological and social factors, generally changing in time.

3.8.4. The economic implications of consensus

The second category of problems raised by economists refer to the economic implications of applying consensus, which we shall briefly discuss in the following.

A part of human activity organized on the basis of private or voluntary rules has opted for forms based on collective forms. In this context the individual was put in the situation of being confronted with private/collective

³² James M. Buchanan and Gordon Tullock, *op. cit.*, p. 18.

alternatives, comparing them from many points of view, among which prevalent is that of costs. He was able to find that it was advantageous to explore the possibility of organizing some activities collectively perceiving that in this way he could increase the utility. According to Buchanan and Tullock, individual utility can be increased through collective action, having two kinds of distinct effects:

1. On the one hand, the elimination of some external costs which private, voluntary actions of other individuals force upon the respective individual;

2. On the other hand, the realization of some external gains which cannot be obtained by standing isolated, therefore acting privately.

Following the comparison and algebraical summation of gains and costs, the so-called net direct costs result³³.

The exercising and practicing of collective options through political consensus necessitate organizational expenditures called consensus or collective decisions costs. These must be compared with the net direct costs of collective option. From the algebraical summation of the two main categories of costs finally result the total costs which Buchanan and Tullock call social interdependence costs, and Coase, North and other neoinstitutionalist researchers call transaction costs³⁴.

The interested decision-maker will consider that it is advantageous to agree with certain rules when he can anticipate that the gains will exceed the costs by implementing these rules. In order to be applied, the respective rules must be supported by all community members through democratic political mechanisms - polls, referendum, etc. The process of expanding collective activity by democratic means is in substance a process of optimization.

It results from the evolution of costs and from democratic mechanisms:

- on the one hand, net direct costs (C), often called external costs, diminish to the extent of the increase in the number of individuals participating in the collective action (N) (diagram a in fig. no. 2). Net direct costs, having a relatively constant character, diminish in so far as the number of participating individuals increase.
- on the other hand, the organizational costs of realizing consensus (D) rise commensurate with the increase in the number of individuals involved in the collective action (N) (diagram b in fig. 2). The higher

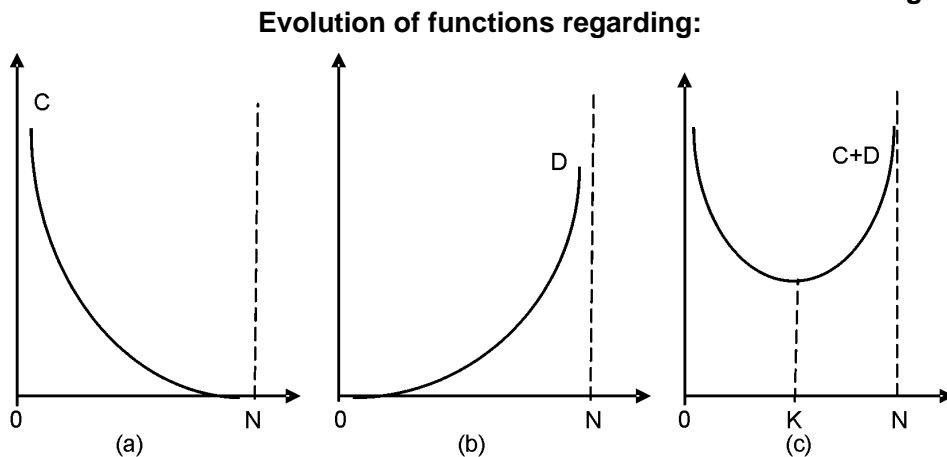
³³ James M. Buchanan and Gordon Tullock, op. cit.

³⁴ James M. Buchanan and Gordon Tullock, op. cit.

the number of participating individuals the more cumbersome is the process of realizing consensus and needs higher expenditures.

- superposing the two diagrams one over the other, we obtain diagram (c) from fig. 2, which shows the evolution of social interdependence costs' function (transaction costs) resulting from the summation of the two functions in the two preceding diagrams (C+D)

Fig. 2



- net direct costs (external) - diagram (a)
- organizational costs of consensus' realization - diagram (b)
- social interdependence (transaction) costs - diagram (c) relative to the number of individuals participating in the collective action (N). K is the optimum locus.

Hence it results that consensus is a necessary process which manifests itself both in the general socio-economic life and on the plane of political doctrines. It should be mentioned the fact that in terms of constitutional economics consensus is not a process without costs (or costs equal to zero). It is a process which implies, on the one hand, advantages and, on the other hand, organizational and consensus realization costs. The decision - maker - either the individual directly interested, or the politician who conceives and apply a party's doctrine - is put in the situation of opting either for the acceptance or the rejection of some options regarding collective regulations using as appreciation criterion the sound principle of costs which requires the realization on relatively extended areas of consensus between different political doctrines.

Such model, which has obtained a large extension and audience, more so in the academic world, can constitute not only an explanation but also a plea addressed to political elites for the adoption of such basic reasoning in doctrines and programmes, which envisage political actions for the guiding of some democratic processes or mechanisms in achieving socio-economic reforms regarding the fundamental rules related to the social order.

In democratic societies such fundamental institutions do not represent a gift offered or a thing imposed on society. They result from a natural process of debates organized by free individuals in their attempt to formulate acceptable rules, in general, from the perspective of their long-term interest³⁵, debates conducted and mediated by political parties with doctrines which reflect the interests of the social groups which they represent. The parties are obliged to the electorate to reach a consensus on the points of vital interest for society, points representing the fundamental aspects of social order.

Bruno Frey points out that for a great part of socio-economic problems unanimously accepted arrangements can be achieved to the benefit of all. He distinguishes three important application domains of such arrangements³⁶:

determination of fundamental political rules and institutions by their guarantee such as those regarding individual rights and liberties and state's structure;

determination of the role and division of labour among, fundamental socio-economic decision-making systems envisaging rules, regulations and institutions at constitutional level which - obtaining consensus - show the way in which can be overcome the shortcomings of a democratic society's decisional system in the fields of market, democracy and government, state administration apparatus and interest groups;

determination of the basic rules of allocation, distribution and economic stabilization through elimination of the market mechanism failures, by control of the public sector, limitation of the government interventions and regulation of the income policy.

In many democratic countries such rules and regulations belong to the consensus zone of the parties' political doctrines and they are inserted in the constitution texts. This has a distinguished significance because of the economic and social aspects which must bring together the parties and society, and not divide them.

³⁵ James M. Buchanan and Gordon S. Tullock, *op. cit.*, p. 7.

³⁶ Bruno Frey, *op. cit.*, p. 311-316.

4. INTEGRATION AS A PROCESS OF REMOVAL OF THE ECONOMIC BARRIERS*

4.1. Introduction

Since 1990, Romania has largely opened to the world along with the deep transformation of the former economic system. Such openness has been stimulated, on the one hand, by the new internal and external course of Romania's policy and, on the other hand, by the action taken at the world and regional levels to remove all kinds of barriers hindering free trade.

Among the most important measures taken to remove the global, regional and national barriers we find:

- Implementation of the multilateral agreements reached during the GATT (WTO) rounds in relation to the liberalization of the national markets of the signing countries;
- Enforcement of the Rome Treaty that laid the foundations for the Common Market;
- Carrying out the measures for setting up a single European market as decided by the Maastricht Treaty to ensure the free movement of goods, services and production factors among the EU members;
- Signing and implementation of the agreements concerning Central and East European countries' association with the European Union;
- Acceptance by the Council of Europe in Copenhagen (1993) that the Central and East European associate countries become EU members provided that they comply with certain political and economic criteria (democracy building-up and consolidation, political stability, building-up and consolidating functional markets, the economy's capability to face competition, the institutions' capability to enforce the law and adopt the *acquis communautaire*);
- Official application by the associate countries for the accession to the European Union (1994-1995);
- Initiation of the negotiations for the accession of the ten Central and East European candidate countries following the Decision of the

* *Published in Oeconomica No. 2, 2003 and in Aurel Iancu, Liberalization, Integration and Industrial System, Expert, Bucharest, 2002.*

European Council in Luxembourg (1997) and Decision of the European Council in Helsinki (1999).

Besides the market opening, the implementation of these documents has also offered opportunities to speed up Romania's integration into the EU along with other countries in the area.

The careful examination of the effects of the above actions on the real processes taking place in various sectors of the economy reveals two contradictory trends:

- a) Deeper and broader trade integration on the regional and global levels;
- b) Disintegration and fragmentation of the national production systems.

Unfortunately, the international economic organizations are less interested in such contradictory trends when making decisions. They are mostly concerned to solve the problems related to the barriers that hinder free trade between countries and institutional reforms. It is from this perspective that one can deal with the priorities and the pace at which various agreements are worked out and carried out and consider the steady monitoring of their implementation, irrespective of the effects on trade structure and especially on production. Actually, believing that the liberalized markets can ensure optimum economic development of all countries, irrespective of their initial condition, such organizations rarely provide appropriate and efficient solutions to the problems concerning trade and payment imbalances, scarcity of capital, crisis in some modern sectors that affect economic development and modernization of some countries, etc. Even when certain punctual preoccupations exist, they seldom recognize that there are non-functional markets (especially, in some transition countries), that require special solutions to escape the vicious circle of underdevelopment and unfavorable trend of development.

Considering the above-mentioned general remarks, we intend to deal in this chapter with the way and pace of removing the economic borders by eliminating the tariff barriers from the exchanges between the EU and the Associate Countries, as well as with the way the Associate Countries adopt the *acquis communautaire* in the customs and commercial fields in accordance with the requirements for the Single European Market.

4.2. Removal of economic barriers – a basic requirement for integration

Following public debates and various writings, as well as the conclusion of the Treaty of Rome (1957), the founders of the United Europe

considered, from the very beginning, two fundamental ways of integration: the **economic** one, consisting in establishing a Pan-European market free of any barriers that could hinder free and competitive trade, and the **political** one, i.e. setting up European institutions able to exercise supra-national authority.

The countries, as political entities, are separated by political and territorial borders, while the national economies are delimited by economic borders. As a rule, economic integration is achieved by removing the economic borders existing between the countries involved in that process, and political integration is achieved by gradually transferring some functions from the national states to the European Community. The high mobility of the factors and the large amount of goods and services and communications among different countries prove the relatively high level of economic integration of the countries.

It means that the barriers existing at the economic borders have been diminished. Complete removal of such barriers means complete removal of economic borders and, further, advanced or full economic integration.

4.2.1. Classification of economic barriers

According to the world practice, there are several categories of barriers to free trade and economic integration. In a narrow sense, they may be classified as tariff ones and non-tariff ones. Extending the contents, one may distinguish among three categories of barriers:

- **Natural** barriers, caused by geographical conditions. They are defined either by placing the country at a long distance or in a peripheral position as against the other partner countries, or by natural obstacles such as mountains, large water areas, desert, etc. Many of the barriers may be diminished or overcome by the significant development of the infrastructure – roads, railways, airlines, sea transport, telecommunications, etc.
- **Cultural** barriers, caused mainly by the historical conditions. They are defined by customs, behavior or attitude towards work, rules, etc., by religious beliefs, by language as a communication means a.s.o. Such barriers might be stronger and more lasting than other categories of barriers and their diminution requires significant and steady educational efforts.
- **Artificial** barriers, caused by the actions taken by the public authorities to protect the domestic producers and markets, to increase the incomes to the budget, to finance public works, etc. Such actions

become formal and informal rules, institutions and economic, financial and administrative mechanisms. In its turn, this category of barriers consists of two subgroups:

- tariff ones, as customs duties;
- non-tariff ones, as various constraints and limitations (political, economic, financial, technical, etc.).

According to some authors (e.g. Jovanovič, 1998), the non-tariff barriers are the most important and most dangerous ones, as they divide markets to a greater extent than the non-tariff barriers have done. Besides the creative imagination to set up such barriers and the lack of transparency and data on their existence, further aspects should be added. The current non-tariff barriers require very costly monitoring measures, cause distortions and uncertainties, and hinder the effective specialization of the companies.

In principle, the measures to be taken to gradually remove the barriers are the main requirements and fundamental elements of the stages to be covered by the countries on their long way to accede to the European Union and fully integrate into the Union.

4.2.2. Stages of the European economic integration by the criterion of the capability to remove the barriers hindering market liberalization

The studies concerning the European integration evolution and determinants have revealed that the countries have covered several stages in this respect.

While, in principle, such stages cannot be omitted by the countries involved in the process, they can be shortened by removing the barriers at a faster pace.

In his 1961 pioneering study, Balassa shows that the integration of the European countries covers several stages:

1. Free trade area;
2. Customs Union;
3. Common market;
4. Economic union;
5. Full economic integration.

The first two fact-based studies comply with both the GATT (WTO) requirements and the association agreements concluded between the EFTA countries and the transition countries, on the one hand, and the European Union, on the other hand. The GATT (WTO) includes provisions

concerning antidumping, competition, origin of products, sensitive and infant industries, public procurement etc., while the association agreements remove the customs duties and import quotas on the industrial products and eliminate or increase the import quotas on agricultural products.

The other three stages – still not covered at that time – were much beyond the above definitions owing to the full liberalization of the movement of all kinds of goods, services and factors and to the harmonization of the countries' legislation and national economic policies.

Over 44 years of experience in the field, the European integration has undergone many profound changes. The fact that more countries, including Central and Eastern European countries (with an economic and social development level much under the other member Countries and with emerging markets) have joined and are still joining the six founding States confirms the idea that the European integration is a long process that, along with each country, has to go through certain phases and reach several well-defined stages.

The main phases a country has to go through to achieve full integration into the EU are shown in Table 1.

Table 1

European Integration Stages

Stage 1: Pre-accession (Associated Countries)		Stage 2: Post-accession (EU Member Countries)		
Phase 1	Phase 2	Phase 1	Phase 2	Phase 3
WTO MEMBERS Access to the Most-Favored Nation Clause	BILATERAL FREE TRADE + NEGOTIATIONS Mutual access to exemption from customs duties on industrial goods Accession negotiations WTO MEMBERS Access to the Most-Favored Nation Clause	COMMON MARKET Mutual access to exemption from customs duties on all goods Common external tariff Common labor market Intercommunity transfers Mutual elimination of antidumping and ant subsidizing measures	SINGLE MARKET Free Movement of labor force, capital and services Elimination of border control by the member countries VAT quota harmonizing Mutual recognition of health standards and certification procedure Right of residence without a job Common foreign trade policy (not only for tariffs) Open governmental purchases Strong Community control concerning competition and govern- mental aid policy	ECONOMIC AND MONETARY UNION Common monetary policy A single currency-euro Common security and defense policy Expenditure on European cohesion Working out a new common European Constitution SINGLE MARKET Free movement of labor force, capital and services Elimination of border control by the member countries VAT quota harmonizing Mutual recognition of health standards and certification procedures Right of residence without a job
			Bigger structural funds COMMON MARKET Mutual access to exemption from customs	Common foreign trade policy (not only for tariffs) Open governmental purchases

Stage 1: Pre-accession (Associated Countries)		Stage 2: Post-accession (EU Member Countries)		
Phase 1	Phase 2	Phase 1	Phase 2	Phase 3
			duties on all goods Common external tariff Common labor market Intercommunity transfers	Strong Community control concerning competition and governmental aid policy Bigger structural funds COMMON MARKET Mutual access to
			Mutual elimination of antidumping and ant subsidizing measures BILATERAL FREE TRADE + NEGOTIATIONS Mutual access to exemption from customs duties on industrial products Accession negotiations WTO MEMBERS Access to the Most- Favored Nation Clause	exemption from customs duties on all goods Common external tariff Common labor market. Intercommunity transfers Mutual elimination of antidumping and ant subsidizing measures BILATERAL FREE TRADE + NEGOTIATIONS Mutual access to exemption from customs duties on industrial products
				Accession negotiations
				WTO MEMBERS Access to the Most-Favored Nation Clause.

Source: Robert Baldwin, *op. cit.*, p. 141, with some additional notes of the author (A.I.).

There are two fundamental stages: **pre-accession stage** when the candidate countries prepare to fulfill the basic requirements for being accepted in the EU Club, and the **post-accession stage** when the countries have fulfilled the requirements (rights and obligations) for being **members of the European Community**.

The first stage - pre-accession - includes two phases:

- The first phase relates to the requirements for the WTO membership, i.e. access to the Most-Favored Nation Clause and observance of the agreements concluded during the negotiations for tariff barrier diminution, non-tariff barrier elimination from the member countries' trade, implementation of a special commercial policy in some sensitive branches etc.
- The second phase relates to the requirement for becoming a EU associate country, i.e. mutual access of the parties to the industrial goods market along with the exemption from customs duties, harmonization of the legislation and institutions, etc.

The transition to the second stage consists in the accession proper to the EU; the accession is considered to be fulfilled when that country becomes an official member of the European Union. One country may reach this stage, i.e. member of the European Communities, only if:

- It has already completed the previous two stages, as shown above.
- It has fulfilled the political and economic accession criteria as approved by the Council of Copenhagen¹, and has finalized the accession negotiations for the 31 files (chapters) specified in the pre-accession methodology.

The second stage - post-accession - consists in establishing United Europe itself. The purpose is to eliminate all kinds of obstacles hindering the relations between the EU countries and strengthen the economic, social and political cohesion of all component nations.

The objectives can be achieved by means of treaties and agreements as fundamental (primary) legal instruments. Once approved, their

¹ *Such criteria relate especially to countries in transition to the market economy as regards: democracy functioning and consolidation; development of a functional market economy; reconstruction of the institution and improvement of their capability to comply with new requirements, legislative harmonization as well as the implementation of the economic policies that provide the elimination of all barriers to integration, as well as the adoption of the entire *acquis communautaire* in all fields. Moreover, each country should be able to face competition, both in the domestic market and in the European Single Market, and contribute to increasing social and economic cohesion in Europe.*

implementation and monitoring are mandatory and the responsibility lies with the national and Community institutions.

To absorb the shocks that might have been caused to the European economic and social system by new membership and deeper integration, the fulfillment of the treaties and agreements as well as the efforts made in this respect had to be properly scheduled. That is why the second stage consists of three phases: the **Common Market**; the **European Single Market**; the **Economic and Monetary Union** (called the **European Union**).

Each of the phases has highly varied application durations depending not only on the objective but also on the readiness of each country or group of countries. We present below the main objectives of each of the three phases:

1. The Common Market, characterized by:

- free trade extension (without any constraints) to all products;
- full openness with regard to the labor movement;
- establishment of the common agricultural policy (CAP);
- common external tariffs and the establishment of supranational institutions with real power to make decisions binding for the member countries.

2. The European Single Market, characterized by:

- free movement of goods, services and production factors, including the protection of the EU companies right to settle in any EU country;
- VAT harmonization;
- mutual recognition of health and insurance standards and quality, health, environment protection certificates, etc.;
- common foreign trade policy (not only common external tariff);
- increasing Community control over competition policy and governmental aid.

3. The Economic and Monetary Union, characterized by:

- deeper integration by further carrying out the measures mentioned above, realizing a common monetary policy and a single currency (euro);
- common security and defense policy;
- drawing up the European Constitution, increasing the powers of some European institutions and creating EU citizenship.

The scheduling of the above stages and phases depends not only on the objectives, but also on the features of each country or group of countries, on their readiness to face the free market forces within the EU and to adopt the *acquis communautaire* in all fields.

All of the six founding countries have become members of the European Community since 1958, following the enforcement of the Treaty of Rome and went through the three phases. To become members of the above Community, the other countries had to go through a preparation period of several years – called pre-accession – either as EFTA members or as EU associate members.

Table 2 shows the number of years required for the integration phases, including the pre-accession, covered by each country or group of countries.

Table 2

The integration phases and the number of years covered by each country in each phase and aggregate

Countries	Pre-accession (Bilateral Free Trade + Negotiations)	Common Market 1958- 1986	Single Market 1986- 1993	Economic and Monetary Union 1993- 2002	Total of the four phase s
The six founding countries (Belgium, France, Germany, Italy, Luxembourg, the Netherlands)	-	28	7	9	44
Austria, Finland, Sweden	20	-	3	6	29
Spain	16	-	7	9	32
Portugal	13	-	7	9	29
Greece	20	5	7	9	41
Ireland, Denmark, the United Kingdom	-	13	7	9	29
Transition countries: First accession wave (Czech Republic, Poland, Hungary, Slovenia, etc.)	11				
Second accession wave (Romania and Bulgaria)	14*				

* On the assumption they will join the EU in 2007.

Source: Robert Baldwin, *op. cit.*, p. 148, updated by the author (A.I.).

The six founding countries and Ireland, Denmark and the United Kingdom jumped over the pre-accession period, while Sweden, Spain and Portugal shifted directly from the pre-accession stage to the Single Market phase. It was only Greece that covered all phases.

Sweden is a special case as regards the evolution and length of the pre-accession stage. The above length includes the periods covering the application of the agreement between the EFTA and the European Community and of the Treaty concerning the creation of the European Economic Area, as Sweden was a member of both organizations and signatory to the Agreement and the Treaty. The application of the above documents meant practically that steps were taken to remove gradually tariff and non-tariff barriers, to harmonize the Swedish legislation with the Community one, to make institutions compatible and to achieve economic integration. Thus, in 1984 the customs duties on the industrial products were eliminated by Sweden and the Community and in January 1994 (following the creation of the European Economic Area) the regulations concerning the goods and services exchanges, capital and labor movement were unified.

Under such circumstances, less than two years elapsed from the application for accession to the opening of the negotiations, and the negotiations lasted only one year and half as they were concluded in March 1994².

4.3. Romania's accession to and integration into the European Union by trade

Since 1993, Romania, like other countries in the area, has been carrying out the EU Association Agreement basically meant to diminish gradually and to eliminate the customs tariffs and import and export quotas of industrial products. As regards the import duties and quotas of industrial products a delayed schedule has been applied to Romania and other associate countries. The Government's Program for the Accession to the EU in force estimates that Romania can take on the essential objectives that could enable it to fulfill all criteria for EU membership by 2007.

As a rule, the accession of a country to the EU by trade implies taking the following measures:

² A. Iancu, "Experiența Suediei în pregătirea aderării și integrării în Uniunea Europeană", in *Economistul, Suplimentul de Economie teoretică și aplicată nr. 41*, 1996.

1. Removal of all kinds of barriers that hinder the movement of goods and services in the European Single Market.
2. Adoption of the EU common tariff, which means, on the one hand, imposing customs duties on the basis of the Most Favoured Nation Clause in relation to third countries enjoying such a clause, and, on the other hand, a preferential customs regime in favor of third countries, in accordance with association agreements, free trade agreements and preferential tariff arrangements and systems.
3. Adoption of the EU commercial policies on the multilateral, interregional, regional and bilateral levels, with the subsequent implications for the country's commercial policy.

4.3.1. Removal of customs barriers of the commercial flows between the EU and Romania as a first step towards accession

As mentioned above, the European Single Market has fully removed the barriers of the intra-Community commercial relations. In relation to the Associate Countries, including Romania, the opening of the single market is differently carried out for the two large categories of products: as regards the industrial products, the full removal of the customs duties and quotas is achieved before accession while the removal of or reduction in the customs duties on agricultural products is only partial upon accession to the EU. Therefore, Romania will export to the EU single market unlimited products. Of course, the impact of the Romanian exports on the single market is quite insignificant due to the small share and relatively low competitiveness of the Romanian products in this market, as well as to the non-tariff barriers that hinder the penetration of such products in the European Single Market. The Romanian agri-food export to the single market is and will be more restricted by tariff and non-tariff barriers throughout the pre-accession period.

This EU policy raises the following question: What was Romania's response in relation to the two categories of products and what was the impact of the response on the domestic market and production?

The field of industrial products

In accordance with the principle of reciprocity and the EU association agreement, Romania proceeded similarly, but within a certain time lag (as a

concession), to the gradual diminution towards full removal of the duties on the import of industrial product from the EU starting with January 1, 2002³.

The deadline of rescinding the customs duties on the import of industrial products from the EU (2002) had a major impact similar to the previous ones just because the customs protection of such EU products had been diminished gradually and significantly, from 1993, by groups of products and by a rigorously worked-out and monitored schedule.

By taking into account some economic criteria (product or branch sensitiveness, competitive potential of the imported products, pace of branch restructuring, etc.), the association agreement differentiated significantly between the groups of industrial products as regards the pace of diminishing or rescinding the duties and increasing or eliminating the import quotas as follows:

- The customs duties on some products with low impact on the domestic production were rescinded at the time the agreement came into force.
- As regards other essential products with a relatively low impact, the import duties diminished gradually (in two stages) and were expected to be abolished in 5 years after the agreement coming into force.
- As regards another category of important products with some impact on the domestic production, the import duties diminished gradually on a yearly basis and were expected to be abolished in 9 years after the agreement coming into force.
- As regards some industrial products, the import duties were suspended within the limits of annual quotas that were increased and the customs duties exceeding the quotas were gradually rescinded.
- Also, as regards the import of EU products to Romania the quantitative constraints were eliminated.

As the arithmetic average of the customs duties on EU industrial products was only 6.4 percent in 1999 and other reduction measures were taken in the following years, it is obvious that the shock caused by the last

³ On the 1st of January, 2002, Romania rescinded the customs duties on the import of industrial products not only from the EU, but also from AELS member countries (Switzerland, Norway, Iceland and Lichtenstein), CEFTA member countries (Poland, Czech Republic, Hungary, Bulgaria, Slovenia) and Turkey, following the conclusion of free trade agreements. The elimination of the customs duties on the imports from such countries has slightly affected the domestic manufacturing of such products, since, for example, the 1999 arithmetic means of the import customs duties accounted for: 1 percent or less on the CEFTA industrial products, 7.3 percent on AELS products and 6.5 percent on Turkish products.

measure, i.e. the removal of all customs duties, could not be stronger than the previous ones.

Anyhow, the impact of the removal of the customs duties on imports from the EU affected to some extent only the products enjoying a relatively high customs protection (import duties of 10 percent or over in 2000), such as industrial products based on agricultural raw material, TV receivers, tractors, cars, tanks, freight transport motor vehicles, motorcycles, bicycles and accessories thereof.

The field of agricultural products

According to the principle of reciprocity (on which the Association Agreement is based), the elimination of or diminution in the customs duties and quantitative constraints on the import of food from the EU is only partly achieved owing to the significant sensitivity of the agricultural sectors of both parties. Only at the time of accession the customs duties and the other constraints will be fully eliminated. But unlike the industrial products, in the case of agricultural products such elimination will cause a stronger impact on the domestic agricultural production since the customs protection of the agri-food products is stronger than that of the industrial products. The customs duties levied by Romania on such EU products are almost five times higher than the duties on industrial products. For instance, the 1999 arithmetic average of the customs duties levied by Romania on agri-food products imported from the EU amounted to 31.4 percent as against 6.4 percent on the industrial products imported from the EU. Below we present in an analytical way the size of customs duties on the groups of products that exceed the arithmetic average calculated for all imported agri-food products. Table 3 shows the upper and lower limits of the products included in 6 chapters of the Combined Nomenclature (CN Code).

Table 3
The customs duties on EU agri-food products imported by Romania in 2000

CN Code	Products	Lower and upper limits of the duties on products imported from the EU (%)
22	Beverages, alcoholic liquids and vinegar	40-144
24	Tobacco and tobacco products	30-98
02	Meat and edible offal	40-45
04	Milk and milk products, eggs, honey,	

	edible products of animal origin, undefined and not included elsewhere	35-45
16	Food of meat, fish or shell fish, oysters or other water invertebrate	40-45
18	Cocoa and cocoa products	45

Source: Dumitru Rădoi, Victor Aldea, Alina Beldescu, Impactul adoptării acquis-ului comunitar privind politica comercială comună în perspectiva aderării la UE, ESEN-2. (The impact of the adoption of the Community acquis concerning the common commercial policy for the accession to the EU), Academia Română, Secția de științe economice, juridice și sociologie, INCE, CIDE, 2001, p. 9.

Besides the products included in the six chapters of the Combined Nomenclature there are other important agri-food products (potatoes, cereal flour, processed cereal grains, malt, wheat and maize starch, sun-flower seeds, etc.) on which the import duties are higher than the arithmetic average. The full elimination of customs duties on agri-food products imported from the EU is a threat to the Romanian agriculture, all the more so as the EU member countries produce in excess agri-food products (cereals, beef, butter, wine, etc.) at high effectiveness and at a high subsidizing rate.

In principle, the Romanian products significantly affected by the EU competition as a result of the full elimination of the customs duties at the time of accession will be those that enjoy the highest customs protection at present. Unfortunately, for reasons of high sensitivity of the branch, agri-food products are on top. The sudden elimination of custom duties on imported products, without special arrangements and measures in this respect, could cause a real flood of EU agri-food products. Such products could strongly compete against Romania's domestic production and would bring about the collapse of the country's agricultural sector that is a strategic sector employing over 40 percent of the working population and ensuring the country's food security.

4.3.2. *The common external tariff and the EU bilateral, regional and interregional policy implications⁴*

Romania's accession to the EU implies not only the removal of the tariff and non-tariff barriers from the trade relations with the Community, but also the adoption of the EU external common tariff, as well as our country's compliance with the requirements for the fulfillment of the EU treaties with third countries and international organizations in the trading field and for the adoption of the *acquis communautaire*. It is Romania that has to adjust its protection system at the level of the EU ones. And such action will result in a significant diminution in the customs protection of the national production and of its trade relations on other markets, since here also there is a clear difference between the customs protection level in Romania and the EU level as regards the industrial products and agri-food products.

The industrial products. In 1999, the arithmetic average of the customs duties on imports in accordance with the most-favored-nation clause was 16.2 percent in Romania and 4.5 percent in the EU, the latter tending to diminish to less than 3 percent in the years to come. According to a list of the first 100 industrial products ranked by the value of Romania's imports from third countries (from an eight-digit level combined nomenclature), the customs duties on imports reached the following levels:

- higher in Romania than in the EU on 61 products;
- lower in Romania than in the EU on 31 products;
- equal on 2 products;
- exemption from the customs duties was considered in both cases (Romania and the UE) for 25 products.

Romania's tariff alignment to the common tariff means, on the one hand, a lower customs protection in relation to third countries by diminishing the customs duties on a larger number of imported products by several significant percentage points: 8-10 on medicines, 20 on cars, 16.3 on non-automatic sewing machines, 13.5 on plastic items, 13.4-16.2 on woven material, 75-176 on various metallurgical products. At the same time, in Romania the customs protection will be higher for a small number of less

⁴ Most of the data included in this section were collected from the following studies: RCFT, *The customs impact of the integration into the EU*, Bucharest, 2000; RCFT, *The implications of the adoption by Romania of the *acquis communautaire* regarding the multilateral, interregional, regional trade policies for the accession to the UE*, by Dumitru Rădoi, Victor Aldea, Alina Beldescu, Bucharest, 2000; RCFT, *Implications of the adoption by Romania of the *acquis communautaire* regarding the agri-food products trade policy*, Bucharest, 2000.

important products and by relatively few percentage points, which will not improve the structure of the Romanian industry.

The agri-food products. The effect caused by the diminishing customs protection on the Romanian producers will be stronger to some extent after the adoption of the EU common tariff on the agri-food products imported from third countries in accordance with the most-favored-nation clause, owing to the different size of the duties on imports levied by the two parties in relation to third countries. In 1999, the arithmetic average of the customs duties on the imported agri-food products was 33.9 percent in Romania as against 17.3 percent in the EU.

The 95 more important agri-food products imported by Romania from third countries, classified according to the Combined Nomenclature, and detailed by eight-digit level, are grouped in accordance with the size of the customs duties imposed by Romania in relation to the EU as follows:

- higher in Romania than in the EU on 54 products;
- lower in Romania than in the EU on 36 products;
- approx. equal to Romania and the EU on 5 products.

The accession to the EU means Romania's compliance with the customs duties on imports included in the EU common tariff, with effects corresponding to the above three cases:

- A major diminution in the customs duties accompanied by a significant reduction in the customs protection of some products such as chicken, sun-flower seeds, vegetal oils and fats, margarine, food for animals, tobacco, cigarettes. The domestic production of such goods will face increasing competition, and, therefore, strong measures must be taken to increase competitiveness and to adopt the production structure to the new conditions.
- The increase in the customs duties on the imports from third countries, i.e. a higher customs protection of some products:
 - sugar, increase by 98-143 percentage points;
 - beef, increase by 99-141.4 percentage points;
 - tomatoes, increase by 97.6-104.2 percentage points;
 - apples, increase by 66.4-70.4 percentage points;
 - barley, increase by 55 percentage points;
 - wheat flour, increase by 5 percentage points.

The increase in the customs duties on such categories of products will allow their domestic production to grow and the imports to be directed to the EU member countries. It will also bring about higher prices in the domestic market.

- Unchanged or slightly changed customs duties on some products such as pork and chicken, soup products, soya cakes and waste, etc.

The adoption of the EU common tariff implies not only imposing customs duties based on the most-favored nation clause in relation to the countries benefiting by the clause, but also granting: **a preferential customs system to third countries or groups of third countries based on Association Agreements, free trade agreements, preferential tariff arrangements and systems agreed by the EU and the above countries or groups of countries.** It means preferential agreements of partnership with EFTA countries, countries of the Euro-Mediterranean Free Trade Zone, ACP countries (Africa, Caribbean, Pacific, 71 in all), participants in the Lomé Convention, Latin-American countries and countries of the Golf Co-operation Council, with which the EU concludes free-trade agreements.*

Romania's accession to the EU also implies **the adoption of the Community commercial policy at the multilateral, interregional, regional and bilateral level, which brings about changes in our country's commercial policy.** Such changes in relation to Romania's new status as a EU member refer to the following:

- The harmonization of Romania's agreements to the EU ones within the World Trade Organization is the purpose of the Community-oriented policy. The above action implies: the consolidation of the customs duties at a lower level than the present level of Romania's customs duties (especially on industrial products); harmonization of national legislation with the EU commitments concerning services trading and public procurement; consideration and adoption by Romania of the opinions and solutions suggested and adopted by the EU during the new round of WTO negotiations.
- Romania's withdrawal from the Group of Developing Countries (from the WTO system and the UNO system), whose direct consequence is giving up advantages such as: smaller commitments within the WTO, acceptance of transition periods concerning some measures, free technical assistance, preferential tariffs among the developing countries, etc.
- Romania's transition from receiver country to donor country within the Generalized Preferential System (GPS). Under the new circumstances in accordance with the GPS pattern adopted by the EU, Romania's imports from third countries will be mostly on a

* For example, following the partnership agreement with the EU, Romania has rescinded the duties on goods imported from the EFTA countries since January 1, 2002.

preferential basis, therefore much lower customs duties or tax exempt⁵. At the same time, in accordance with the GPS, a wide range of Romanian products exported to developed third countries⁶ will not enjoy exemption from or diminution in customs duties imports.

The expected changes in Romania's trade policy owing to the adoption of the *acquis communautaire* imply both costs and benefits.

Costs are required by the following:

- a) Diminution, to almost complete elimination, in the customs protection of the national production in relation to foreign competition owing to the significant liberalization of the import of goods and services⁷ following the removal of the barriers from the European market and the fulfillment of the most-favored-nation clause and the realization of the changes in the preferential procedures.
- b) Severe diminution in the budget revenues following the elimination of or the reduction in the customs duties on most imported products and services.
- c) Financial costs resulting from Romania's membership to the EU, i.e. contribution to various funds: European Development Fund, European Research and Development Fund, MEDA Programme for the Euro-Mediterranean Partnership, Joint Fund for staple goods etc.

The benefits to be mentioned are:

- a) Significantly improved access of the Romanian products and services to the European Single Market and third markets to counterbalance the liberalization of imports to Romania.
- b) Increasing negotiation powers at the international level under the protection and authority of the EU in order to effectively promote the national producers' interests.
- c) Speeding up the modernization of the Romanian institutions owing to the adoption of the *acquis communautaire* in many economic and social fields and the supervision of the *acquis* implementation to

⁵ *The European Union implements the Generalized Preferential System as worked out by UNCTAD and implemented by developed donor countries on the basis of their own formula. The GPS implementation is meant to compensate for poor competitiveness.*

⁶ *USA, Canada, Japan, Australia, New Zealand, the Russian Federation, Kazakhstan, Belarus.*

⁷ *The common opinion is that the liberalization of imports takes place in any case, although at a slower pace, irrespective of Romania's accession to the EU, owing to the objective trend of the international trade liberalization and to the loss of the developing country status following the country's economic growth.*

ensure the compliance of the Romanian institutions with the EU standards.

- d) Increasing interest of the foreign investors in the Romanian economy, which means increasing country risk, legislative stability, modern economic institutions and mechanisms similar to the European ones and direct access to the huge single market of Europe.

4.4. Conclusions

The first and most important measures taken within the European integration process refer to the liberalization of trade by removing the barriers and adopting the *acquis communautaire* in the field of trade policy. This means full openness of the domestic market for the inflows of European products, which enables the competition between the local and foreign companies. One conclusion based on the available data is that in the case of agri-food products, upon accession, the Romanian economic agents may be confronted with very strong shocks caused by the sudden elimination of the customs duties on imports and the adoption of the *acquis communautaire*. The gradual diminution in the customs duties and the gradual harmonization of Romania's trade policy to the EU one could absorb the shocks to some extent, as it happened to industrial products earlier.

The second conclusion refers to the need to correlate the measures aiming at reducing the protection level of the national production of industrial goods and agri-food with the measure to increase adequately the competitiveness of the Romanian companies in the domestic and foreign markets. In spite of that requirement, both the Association Agreement and other documents regulating the commercial relations between the EU and Romania stipulate in detail only the mutual obligations of the two signatories in connection with trade liberalization. For instance, the Agreement stipulated fixed terms for the diminution in the customs duties to full elimination or the increase in the import or export quotas to full elimination, unrelated to the pace of the restructuring and modernization of the branches or companies. Although the Association Agreement, like the agreement with the WTO, includes safeguarding measures, the length of implementation is too short as against the actual length of wide-scale restructuring and modernization in some transition countries, Romania included.

Such approaches focus mainly on the analysis of the requirements for changes in the mechanisms and institutions in order to harmonize them with

the EU ones and the analysis of the way such countries fulfil the requirements.

The issues dealt with in this chapter and the way to approach them are necessary to improve the knowledge concerning the integration in terms of market liberalization. The approach itself seems to be unsatisfactory from the viewpoint of the formulation (by the candidate countries) of some options for economic policy and/or even some position documents and of redirecting some of the EU economic policies regarding the support and concessions granted to the less developed candidate countries. Therefore, further steps should be taken to determine the impact on the structure of Romania's trade with the EU countries and on the changes in the existing structure of the production systems.

To meet such requirements, we try to focus in the next chapters not only on the effects that have been caused and are still caused by the removal of the customs barriers, but also on deeper causes relating to the misinterpretation of the market structure and potential.

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5. THEORIES OF ADVANTAGE, INDUSTRIAL DEVELOPMENT AND EUROPEAN INTEGRATION*

Both in the specialized literature and in the industrial development and integration policy, there is some confusion regarding the definition and application of certain economic laws and concepts such as: **comparative advantage** and **competitive advantage**.

As we shall see below, the confusion is not only lexical and conceptual, but also profoundly pragmatic, with major implications for the orientation of the economic and social development, as well as for the integration. The correct explanation of the two concepts is very important today also in relation to the implementation of the economic policy appropriate to the competitiveness improvement and European integration in the most effective way.

5.1. The new concept as basis of the European integration

The need for the integration into the EU is not and cannot be denied. The future of Romania's democracy and economic and social prosperity is closely connected with the European integration and this fact was recognized by all political forces of the country through the Snagov Declaration in 1995 that accompanied the application for the accession to the EU and the March 2000 Declaration concerning the national strategy for economic development.

According to the Decision of the European Council held in Copenhagen, in June 1993, the associate CEE countries may become EU members and the accession of each country is gradual as the country assumes the obligations by fulfilling the following political and economic requirements:

- Stable institutions able to guarantee democracy, pre-eminence of law, human rights, protection of minorities.
- A functional market economy able to face competition and market forces within the EU.

* *Published in Oeconomica, Nos. 3-4, 2000, and in Aurel Iancu, Liberalization, Integration and the Industrial System, Expert, Bucharest, 2002.*

- Capacity to undertake the obligations concerning the accession, including the objectives of the political, economic and monetary union.

The careful examination of the documents concerning the economic criteria for the integration clearly reveals that the EU decision-makers have adopted a modern philosophy in relation to:

- the definition of the structure of the markets and their mechanisms;
- the structure of the market institutions;
- the type of economic policy to be implemented;
- the ways of action to create the proper conditions for accession.

The above philosophy is based on a fundamentally new concept, i.e. the **competitive advantage** which is opposed to the **comparative advantage theory** that became obsolete long ago but, unfortunately, is still used to justify and support the branch structure orientation of the Romanian economy.

Before explaining what the new concept of competitive advantage is and what its theoretical and applicative importance is, we should first present some features of the comparative advantage theory and some consequences of its application to Romania's economic policy.

5.2. The theory of comparative advantage

The theory provides an explanation for the favorable natural conditions in a national economy (low cost of some production factors) as against the conditions in other national economies, in order to develop certain branches, and suggests, based on static arguments and analyses, the orientation of the specialization in accordance with the advantage of using the available natural factors. The methodology and arguments of the theory are derived from the positive economics exclusively meant to describe and analyze the economy as it is. The objectives are fulfilled autonomously through the free action of the competitive market. That is why the economic policies applied for this purpose are more passive, contemplative, and do not include any actions to achieve certain aims. The comparative advantage theory is clearly based mainly on three pillars:

- The existence of cheap and abundant natural resources on which the branch structure orientation of the economy is based.
- The existence of a general competitive business environment.
- The implementation of neutral macroeconomic policies.

In an article published in *Oeconomica* (A. Iancu, 1999), I pointed out the following: if the comparative advantage law is left further to act freely as

an objective neutral factor able to set the future configuration of the Romanian industry, in accordance with Darwin's principle of natural selection, we shall watch helplessly how some types of adjustment that cut into all industrial subsystems and cause the general deterioration of industrial structure are applied.

Unfortunately, the severest and most onerous disruptions have occurred and still occur especially in the branches playing a vital role in the development on a modern basis of the whole economic system of the country: scientific research, technological development and innovation, medical, precision and optical equipment and instruments, medicines, measurement and control devices, electronic equipment, fine chemicals, aircraft, tractors, automation means, fine mechanics, food industry, etc.

Following the action of the comparative advantage law, the most dramatic diminution in production and export and the most significant increase in imports have occurred in the last ten years just in the branches mentioned above. Table 1 shows the production level in 1997 and 2000 as against the peak production in the previous decades, regarding some important products that contribute to turning to good account of the national resources and infrastructure development.

Table 1
The production level in 1997 and 2000 as against the maximum level in the past (1970-1986)

Product	MU	Production level		
		Maximum in the past	1997	2000
Tractors	pcs.	75,000 (1975)	11,000	5,505
Trucks, tractors and dumpers	pcs.	35,018 (1970)	1,956	702
Coloring matter and organic pigments	to	16,540 (1980)	1,000	262
Antibiotics	to	831 (1986)	4	-
Paint and varnish	to	196 (1986)	38	34.5
Cotton and cotton-type fabric	mill. sq. m.	748 (1980)	173	143.7
Woolen and wool-type fabric	mill. sq. m.	137 (1986)	17	12.4
Steel	mill. to	13.2 (1980)	6.7	4.7
Ciment	mill. to	15.6 (1980)	6.5	8.2

Source: Statistical Yearbook 1991 and 1998; Statistical Yearbook of Industry, no. 12/2000.

The value of food, beverages and tobacco exports was USD 108 mill. in 1996, 106 mill. in 1997 and 64 mill. in 1999, while the value of imports was USD 605 mill., 426 mill. and 416 mill., respectively.

Contrary to that, there has been an increase in the export of raw material and intermediate products – logs, timber, scrap iron, cement, basic chemicals, etc. - as well as in the export of products of the unskilled or low-skilled labor-intensive industrial goods (apparel, footwear, etc.). The process confirms, as we said above, the effects of the comparative advantage law.

As far as we know, no European developed country of large or medium size could watch passively the process of contraction to elimination of the branches and companies contributing to the generation and dissemination of the technical progress in the economy, food security and human development or the excessive shrinking of some intermediate industries (metallurgy, building materials, chemicals, textile threads and fibres and woven material, etc.) the elimination of some branches that support the programs for investment and computerization of the economy and society and similar ones.

Leaving the comparative advantage law to act freely in a still unfunctional and heavily distorted market and in a distorted business environment (owing to inflation, very expensive loans, quick increase in the exchange rate and burdensome tax policy) may affect not only the enterprises without any development prospects but also the most viable enterprises, the latter being the victims of the above unfavorable factors.

What has aggravated and is still aggravating the business environment in Romania and hindered the economic activity is not only the easy acceptance of the dogmaticism imposed by the IMF, but also the insertion of ideas of and recommendations made by foreign experts with no experience in and knowledge of the structure and mechanisms of the real economies of the transition and less developed countries¹. Many of the ideas, taken mostly from books describing perfect competition and comparative advantage theory, have been unsuitable both for the

¹ *The conditioning and ideas refer, for example, to the overnight cancellation of the incentives granted to the investors, the promotion of a neutral tax policy, the liberalization of certain trade policies by diminishing or removing some customs constraints beyond the agreements with the WTO, requirements (within some studies prepared by EU experts) for limiting the production of certain industrial branches like metallurgy, machine building, etc. much under that of other Central European Countries (Czech R. and Poland), non-acceptance of some wage regulations aiming at strengthening certain fundamental institutions of the state. All of them have produced negative effects on the economic development.*

mechanisms and conditions of our economy and for the EU practice and conditions.

To justify the specialization per branches only on the basis of the comparative advantage law means, practically, to hinder from the beginning any objective examination of the dynamics of the production factors and changes in quality, as well as the major contribution, like in the developed countries, of a new production factor consisting of the scientific knowledge and technological invention and innovation to the changes in the structure of the production and services branches. Neglecting the contribution of the above factors to specialization shows the limits of the comparative advantage law in explaining the realities and trends in formulating economic policies for eliminating the shortcomings that hinder at present the evolution of the branches and the country's foreign trade.

5.3. The competitive advantage: contents and features

Unlike the above-mentioned theory, that is static to a great extent, the new concept of competitive advantage – more dynamic and strictly microeconomic – reveals that the evolution, success and specialization of the national economies depend first on the competitiveness of the companies on the domestic and international markets, the evolution and profile of the companies, and the insertion of technical progress, but less on the availability of natural resources. Of course, there are many countries lacking natural resources that have made significant economic and social progress and, at the same time, countries rich in natural resources that have not developed accordingly.

The competitive advantage is scientifically supported by the so-called normative economics whose analysis provides prescriptions or formulations about what should be instead of what is. The new concept is based on active, selective policies directed towards certain targets in relation to the competition mechanisms of the market.

The new concept is obviously supported by four pillars:

- the company (not the branch);
- the competition;
- the favorable national environment;
- appropriate economic policies – active, selective, neutral and mix.

To interpret the concept correctly, one should consider all pillars, including the adequate economic policies, by taking into account the level of development and normal operation.

The analyses included in both the 2000 Agenda and the annual reports of the European Council concerning Romania's progress to accede to the EU reveal that our country has not yet reached that stage of the institutional and production changes to enable it to implement the new concept with the expected efficiency. None of the first three factors is so functional and good that the Romanian economy may cope with the competitive pressure and market forces within the Union. Unfortunately, the economic decline in the last ten years of the 20th century was also caused by the fact that instead of adequate economic policies – active and selective, aimed for achieving certain objectives – other neutral-type macroeconomic policies were implemented but they were more suitable to meet the requirements of the comparative advantage law that left the economic forces to act in a profoundly distorted economic environment without targeting.

In real life, the competitiveness does not occur at the national economy level, but at the level of the economic operators, firms and only through them competitiveness is achieved with effects at the branch and national economy levels. It is the firms that create and support the competitive advantage within the industries and only through them certain national economic objective may be achieved.

In the context of the almost full openness of the Romanian market to the EU, CEFTA and other countries of the area, the question of improving the companies' competitiveness on the domestic and foreign markets is essential for Romania. But this fact implies the working out and application of clear strategies both at the company level and at the economy level, each party having specific objectives and tasks. But the strategies are affected by the theoretical assumptions made. For example, if the comparative economic advantage is considered as the theoretical ground, the problems may be solved only by giving mere explanations concerning the existence of cheap and abundant resources (labor, natural resources, capital) as well as the existence of a general competitive environment accompanied by neutral macroeconomic policies. In that case, the free market forces – unhindered but distorted – bring about the restructuring and adaptation of the firms and branches. Making the same assumption about the existence of some Romanian extremely weak firms operating in a national environment distorted by inflation, expensive loans, undercapitalization, arrears, etc., the perpetual winners in the domestic and foreign markets are the large companies from the developed countries, since their competitive capability is much higher.

Therefore, the supporters of the comparative advantage law, often without being aware of it, echo ideas expressing the interests of that category of companies and countries and of the contesters of the interests of the companies from the less developed and transition countries, since

the latter – as mentioned above – lose from the early liberalization of the markets and implementation of neutral policies, as such policies do not protect and stimulate in any way the domestic capital and firms, unable to overcome the competition shocks.

If the theoretical ground is the competitive advantage, then methodologies and analyses implied by this concept allow for the better understanding of the economic realities and for options that could bring about the clarification of the problems through suitable policies. The competitive advantage is not limited to only theoretical explanations without practical testing. It is highly operational in three ways:

- a) It requires empirical analyses at the microeconomic and mezzoeconomic (branch) levels to reveal the causes of some trends and to assess the direct and propagated effects of some actions or policies.
- b) It requires the formulation and implementation of suitable policies to solve the problems.
- c) It shows the ways and methods to achieve the main objective – higher competitiveness.

In the context of the transition to the European Single Market, competition takes on new dimensions and in the case of the less developed and transition countries, like Romania, the concept has a special connotation and follows special ways of approaching and clarifying it.

To the question “What are the competition dimensions and the special ways of approaching and clarifying it?”, we shall give provisional answers further on.

5.4. A new perception of competition

As far back as the pre-accession period, the industrial product markets were liberalized by the gradual mutual removal of the customs (tariff and non-tariff) constraints. Then, it is the markets of services and agricultural products and the capital and labor markets that will be gradually liberalized. Therefore following the agreements concluded, the trade in industrial goods with CEFTA countries, Turkey, Republic of Moldova, etc. has been almost fully liberalized. In the future, the Romanian industrial producers and services providers and partially the agricultural producers, as well as the labor force will transit from a small market of only 22.5 million inhabitants², holding an overwhelming share in the industrial and agricultural production and in the total world trade.

² To the EU-15 population of over 370 million inhabitants one should also add 160

In principle, the European Single Market of such a size may bring about major economic advantages to the companies, including the Romanian ones. Unlike the fragmented and protected national markets, characterized by the low level of competition and profit, the single market enables the scale economies to grow enormously. Also, it may offer the Romanian entrepreneurs strong incentives to look for new ways of increasing exports or competing against imports on the domestic market or selecting the best locations for investment. If compared to the fragmented and protected markets, the single market, on the one hand, offers new opportunities for business and, on the other hand, urges the managers to learn and innovate in order to increase profit and face competition.

Actually, the single market means free movement of the flows of goods, services, capital and labor to satisfy the expanding and highly sophisticated demand in which all producers, including the Romanian ones, are eager to participate. But not all are lucky enough to remain in competition, especially when competition does not decrease, but becomes tougher, and the winners are not the weak local or national companies, but, first of all, the strongest ones with international vocation. Therefore, the local or national producers, including most of the Romanian ones, are and will be subject to stronger competitive shocks both abroad and at home.

Considering such prospects, one should not agree to either non-action or the utilization of conventional (traditional) ways that do not take into account the new situation (European Single Market) and the low general competitiveness of the Romanian companies in relation to the strong companies from the developed countries.

There already are major discrepancies between the structure of some national market institutions and the structure of some Community institutions. Such discrepancies usually affect severely the poorly developed economic systems undergoing transformation. Thus, the structure of most Romanian institutions (in a broad sense) has taken shape over time to function rather in an isolated national economic environment than in a closed environment like the fully free single market of the Community. The mentality and customs, most laws (including those passed after 1990), the organizational systems and the systems that concentrate the capital in the economic units, etc. are structured and sized mainly at local (national) level, with a prevailing regional orientation caused mainly by the discriminatory isolation of over 60 years in which the Romanian citizens were kept by the European communities themselves.

million inhabitants of the associate countries, and of Turkey, the Republic of Moldova, and some of the new states of the former Yugoslavia.

To illustrate the distorted adoption and utilization of some market institutions that cause problems to the Romanian economy we refer to some regulations concerning the monopoly. The regulation and sizing of many Romanian large enterprises were achieved on the assumption of a limited and protected national market. Since 1990, many large enterprises have been administratively divided under the pretext of eliminating the monopolies or making the activities efficient. According to the adopted regulations, the supply of goods and services by an economic unit cannot exceed a certain market share. Also, to prevent the concentration of the production and capital, the mergers and absorption are under control. Moreover, the agreements between the companies, concerning the market share and pricing and the exclusive right of importation and sale are also controlled.

In the context of the transition to the Single Market, the above practice and some constraints (market share, merger, absorption, etc.) are obsolete and now they are obstacles against the increasing competitiveness of the Romanian companies in relation to the foreign companies, that have bigger turnover, are stronger financially and technologically, better organized and enjoy better marketing. The above constraints do not help the Romanian companies to compete against the large transnational corporations; on the contrary, they affect their vital centers. Of course, it would be more desirable that the authorities support effectively the Romanian companies to improve competitiveness, at least until they become strong enough both on the domestic market and on the EU and world markets.

Considering the above-mentioned, it seems very necessary and urgent to assimilate the new concept of competitive advantage and apply it carefully in the context of the endeavors made to accede to the European Union and to achieve, in the future, the convergence of the Romanian and Community economies.

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6. STRATEGIC INDUSTRIES, CONVERGENCE AND ECONOMIC POLICIES*

6.1. Introduction

When debating about economic growth and integration we should not keep our analysis and projections at the macroeconomic level and at the level of certain synthetical indicators, or at the level that reveals the contribution of certain determinant aggregated factors. For a deeper analysis – at the level of certain branches and mechanisms – we cannot avoid taking into account the role of the branches having the strongest impact on the economy and the society and on the dynamisation of the national economy, which we call strategic industries. We should also consider the problems caused but the application of support policies to these industries, which strengthens or further justifies the denomination of strategical branches. Although the names were borrowed from military disciplines, they do not refer to defence industries.

Why should we deal with strategic industries when discussing about economic growth and convergence? We can give several answers to this question. When referring to the history of national economies, first we find out that these industries had potential for developing the national economies on a modern basis and improving their competitiveness.

Secondly, national economies need significant endogenous impetus in their early development stage. In principle, strategic branches bearing technological progress and having broad connections in the economy ensure that impetus by propagating new technologies to economic branches and to the society.

Thirdly, since the resources of a nation are limited, they should mostly be oriented to the productive branches – called strategic – which can raise the competitive advantage, which is a guarantee for sustainable development and a prerequisite for filling the gap between nations.

In a world showing major differences both in the development level and in the branch and technological structures, one should not ignore strategic industries, their role in achieving convergence and implementing

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adequate economic policies for these industries. It is hard to understand – although practice requires theoretical clarifications with regard to the role and support policies for these industries – that the concept of strategic industry is scarcely studied and used in specialized literature, and when it happens, things are not sufficiently clarified, especially as regards the need for introducing it into the scientific circuit, the criteria for determining the strategic industries and ensuring the consistency with economic and social realities of less developed countries with open economies facing the strong challenge of transnational companies and globalisation.

Moreover, in a world of open national economies integrated on the European level and showing a strong trend towards globalisation there is an increasingly obvious paradox concerning the theoretical foundation of the policies for strategic industries¹. This paradox is quite obvious when we try to find answers to the question: what is the economic and social effect of a support policy for developing a certain branch that is mainly aiming at protecting and promoting the national interest, while most of the companies pertaining to that branch and doing business in the national territory are involved in large international strategic alliances and/or are the source of international-scale strategic technologies, or transnational companies located in tax havens turn national producers into captive suppliers, to whom they impose unfair contract terms affecting national interests²? Under these circumstances, it is difficult to identify which of these companies care about national interest, in order to formulate a certain strategic policy for developing the strategic industrial branches on long term.

Considering the above obscurities and shortcomings, we analyse in our paper the following issues: the definition of the concept of strategic industry (Section 2); the critical analysis of criteria used for determining the strategic industries at the branch level (Section 3); the measurement of the strategic value of the branches in accordance with the criteria analysed (Section 4); support policies for strategic industries in the context of the European integration (Section 5); the role of a viable company in an open competitive market (Section 6); conclusions (Section 7).

¹ Luc Soete, "National Support Policies for Strategic Industries. The International Implications", in *Strategic in a Global Economy. Policy Issues for the 1990s*, OECD International Futures Programme, 1991, Paris CEDEX, p. 54.

² A typical example is the chain of supermarkets that impose unfair contract terms on poorly organized suppliers from emerging markets, which bring them to the brim of bankruptcy.

6.2. Defining the strategic industries

The concept of strategic industry occurred during the discussions about the countries' industrialisation as well as the role and the priority development of the so-called leading sectors. This concept was reiterated and expanded during the discussions concerning the implementation of support policies for certain branches within the action of restructuring and reviving them under the pressure caused by social problems and competition and/or the pressure caused in the attempt to attain objectives of strategic importance at regional or world level in various fields: army, technology, productivity.

We consider strategic the branches acting as real engines for developing and modernizing the economies on long term³. For example, we know from economic history that the textile industry produced the first industrial revolution, in Great Britain, in the 18th century, the metallurgical industry and the mechanical industry produced, in the 19th and 20th centuries, the second industrial revolution in the USA and Europe, and further to the whole world, and the IT&C-based industries produced and still produce the third revolution in industry with an unprecedented impact on economic and social transformations of the countries.

In economic literature, we find various formulations concerning the content of the concept of strategic industry, some presented synthetically and some, analytically. For example, Gressor (1984) defines as strategic industries the industries that, in a given time and place, were the prime cause of economic growth⁴. Analysing the role of the interbranch connections of key industries and their importance for developing economies, Albert Hirschman points out that a strategy for economic development is one that promotes investment in sectors with wide upstream and downstream linkages. These sectors may be considered strategic, since they play a decisive role in economic development⁵. Teece (1991) raises doubts about Hirschman's opinion that industries with high coefficients in the reverse matrix of the input-output analysis should receive

³ Teece, David J., "Support Policies for Strategic Industries: Impact on Home Economies", in OECD, *Strategic Industries industries in a Global Economy: Policy Issues for the 1990s, OECD International Future Programme, 2991, 1991, Paris, CEDEX*, p. 36.

⁴ Gressor J., *Partners in Prosperity: Strategic Industries for the US and Japan*, McGraw-Hill, New York, 1984.

⁵ The references to Hirschman's opinions on strategic sectors are taken from David J. Teece, op. cit., p. 36.

special treatment. In reply, Teece suggests that an industry may be considered strategic or non-strategic depending on its capacity to produce direct social benefits reflected not only in the mere magnitude of the value added of its companies or in its attractiveness for investments in new activities. We should add to them categories of indirect effects propagated within the economy and the society, called positive spill-over generated by strategic branches: (i) producing and propagating important technological innovations, which successively benefit their own companies and networks of users of products and new technologies; (ii) supporting the creation and the development of the infrastructure – transport, telecommunications, consultancy, etc. – and, consequently, producing and making the new branch entries cheaper.

In his attempt to explain the international implications of national strategic industrial policies, Luc Soete (1991) says that the political decision plays a leading role both in terms of a more harmonized and more coherent way of making national industrial, technological, competitive and commercial policies and in terms of placing the above policies in systems based on international rules established by international and regional institutions for member countries.

Considering the above comments, Soete provides three connotations for the concept of strategy:

1. One associated with the military interpretation, according to which a long-term access is the main reason of the strategic interest and of the consent on supporting high additional costs. Here, the author deals with different cases of real life: a) access to certain products and technologies representing strategic military advantages; b) preventing exports of high technology products to countries failing to observe international rules; c) access to scarce resources influencing economic and social security (oil, gas, electric power), to which food may be added.
2. One associated to the commercial theory of economic geography (poles of attraction) with regard to the production concentration in certain countries and regions to the detriment of other ones. The policies counteracting this tendency form one category of strategic policies for regional development used on a large scale by the UE by means of so-called initial incentives for increasing returns and, consequently, the dynamic comparative advantage.
3. One associated to the industrial strategy proper. Here, the concept regards the support policy for so-called industrial connections consisting of sectors that form – from a national perspective – a network of close upstream and downstream connections in the form

of inputs and outputs both in material (tangible) and non-material (intangible) terms, called knowledge. The sectors are strategic to a country when their input and output, together with technologies, spread throughout the entire economy in large quantities through networks, which determines a general economic and social development.

Although correct, these definitions cover only certain parts of the concept. In a broader sense, the concept of strategic industry can be defined in a more comprehensive way in accordance with the following important elements: the characteristics and the role of the branch production of goods and services, the environment in which the branch functions and develops, the political action, the purpose and the implementation mechanisms.

(i) The characteristics and the role of the branch production of goods and services resulting from (systematic and organized) actions for combining various tangible and intangible production factors. To be strategic, the branch should produce not only maximum results, but also the strongest impact on the system and the strongest driving force of the activities taking place within the economic and social system. This component is the most important one since it represents the very substance of the concept. This element becomes operational when the comparison and the selection are based on the following criteria: factor endowment, scientific and innovation potential, intensity and expansion degree of the connections with other branches, size of the generated value added. Given their importance and the complexity of the problems, these criteria will be analysed in two separate sections of this study.

(ii) The environment in which the analysed branch functions is an important complement of the branch, which must be considered for defining it. The environment is represented by the operation mechanism of the market in which there are economic operators of different competitive degrees, which act in accordance with two elements: the level of production concentration on market operators of the branch or the number of dominant actors who compete for markets and customers; the degree of operators' freedom of action on a competitive market. In principle, the competitive market mechanism is an objective framework for measuring and allotting resources efficiently. That is why this framework, called environment, should be considered an economic barometer acting automatically, which must be taken into account. Since the environment is distorted by monopolistic actions following the concentration of the production and the capital, by protectionist actions of some countries, by great differences in development and technology, etc., political actions are required for their

correction and the elimination of the above distortions of the environment. Giving due consideration to this environment – with its strengths and weaknesses – through adequate orientation and support policies for development means taking strategic action for protecting and promoting national interests.

(iii) The political action projected in the future, aimed at producing effects for protecting and promoting the national interest in relations with other countries, actors or circumstances, is the third defining feature of the concept of strategic industry. According to Yarger, the projected political action means computing the specific objectives, concepts and resources within acceptable limits of risk to produce more favourable results than others can do. (Yarger, 2006). Moreover, according to the above author, the projected political action implies the synergy and the symmetry of objectives, concepts and resources to raise the probability of success and the favourable consequences derived from this success (Yarger, 2006).

(iv) By definition, the countries' support policies for strategic industries are part of the fundamental objective for protecting and promoting national interests. This general objective includes objectives specific to each group of countries or to each country in accordance with its specific situation regarding both the development level, the functioning degree of market relations, the scarcity or the abundance of certain resources, etc. and the economic and financial relations with other countries and economic sectors. When referring to EU member countries, we find out that the single market was adequate for promoting competition in the EU by actions such as: removing customs duties existing between member countries, introducing a rigorous control of state aid and of purchases and mergers, taking measures against protection⁶.

For creating a functional competitive environment, it is assumed that there are basic reasons for raising the competitiveness of companies from EU countries for their confrontation with companies from developed countries doing business on the single market or other markets. This does not explicitly mean that we can ensure the fulfilment of national interests of all EU countries, including the less developed ones whose industries are controlled by transnational companies, engaged in large networks of strategic alliances.

⁶ *Emergency protections means antidumping measures, compensation measures following the unilateral use of subsidies by commercial partners and safeguarding measures against fast-growing imports.*

To demonstrate that an industry is strategic or not, we should consider and analyse all four defining elements mentioned above. This is the purpose of the following sections.

6.3. Criteria for determining the strategic industries

To determine the strategic industrial branches means making an objective analysis of all branches in accordance with a representative set of criteria and selecting those meeting the requirements. Since a strategy regards processes as probable trends on a long time horizon, also criteria regard processes as trends without taking into account the contingent fluctuations of the market or the market distortions caused by governmental actions or monopolistic actions (especially by transnational companies having a high market share), or other causes⁷. The set of analysed criteria refer to the nations' factor endowment, scientific, innovation and growth potential in accordance with the product life cycle, intensity and degree of expansion of the connections with other branches, value added size⁸.

6.3.1. Factor endowment of the nations

This is an important criterion for identifying and selecting the strategic branches. Moreover, it is the subject of the Heckscher-Ohlin theory, which explains the trends in nations' and regions' specialisation. The economic profile of every country or region can be drawn up in accordance with the structure of the factors accumulated in time (exploitable natural resources, physical capital, human capital, workforce, technologies) and the cost of their capitalisation. The countries with certain usable resources at lower costs have a comparative advantage especially when the market supply of such resources cannot keep up with demand or/and branches have a monopolistic or semi-monopolistic regime. We refer here to frequent cases: 1) the case of energy resources, when the countries that are big oil and natural gas producers and exporters keep this trading under control and

⁷ *Krugman and Obstfeld point out the following: in case of an analysis based on real market relations, we find out distortions in every criterion especially when they are judged in conditions of non-functioning or poorly functioning markets (Paul Krugman and Maurice Obstfeld, International Economics. Theory and Policy, Harper Collins Publisher, 1994).*

⁸ *Aspects of these issues were also presented in Aurel Iancu, Liberalization, Integration and Industrial System, Expert Publishing House, 2002. Here we develop some concepts and use additional elements.*

impose a monopoly price on the world market; 2) the case of strong attractors consisting of resources that initiate and develop complex industries with vertical clusters having a three-fold advantage: a certain source of resources, low transaction, costs development and capitalisation of the technological competence by research and learning.

The significant changes in modern economies have relaxed, almost to elimination, the dependence of the production structure and the foreign trade on the structure of the nations' natural factor endowment. This process was substantially helped by the diminishing prices of transport and communication and their faster achievement, the increasing mobility of labour, the increasing investment in physical capital and human capital as well as the increasing importance of RD&I. All of them made the location of industries dependent on a set of new attractors (not only the traditional ones): low trading costs, a high development level of the research and education network, a developed and modern infrastructure, low wages, the market size and its high degree of absorption of products from certain branches. In an open and competitive economic system, like the EU system, the developed regions are highly preferred by investors for locating their businesses, just because of the above-mentioned attractors. In fact, it is a confirmation of the general trend, described by François Perroux, towards the creation and the development of attraction centres.

6.3.2. Scientific, innovation and growth potential

There is another important criterion for defining and selecting strategic branches. If industries provide goods and services that meet certain needs and are demanded in the market, we may say that they are viable, because they are recognized by the society.

However, there are great differences between industries in their long-run growth rate. These differences are caused both by the size and the categories of demand and by their importance for the functioning of the economy and the society, the possibility of substitution, the degree of market saturation, the cost evolution, the elasticity of demand. Owing to research, innovation and substitution, some new products are more efficient and better satisfy the same range of needs and tastes than the old products or even stimulate new needs and tastes. That is why demand is oriented towards these products. Based on them, new industries gradually emerge to satisfy new exigencies, along with stagnation, decline or disappearance of other ones, due to substitution and diminishing demand. Research in materials and electronics, resulting in important inventions, led to the development of semiconductors, high alloys, high-resistant plastics, IT

industries, etc., having such a strong impact that they revolutionized whole industries – audiovisual industry, communications, office equipment, car industry, the management, etc. – and created new industries – robots, software, internet, copiers, etc. This is the result of the implementation of important inventions. The applied important inventions show the strong innovative potential of a branch, regarding the extension of the research outcome to economic branches and the society.

The innovation potential manifest itself on another plane as well. To face competition and to maintain as market leaders, innovative companies carry on research and innovation for improving the performance of the product under manufacturing.

We may say that when companies and branches manage periodically to make substantial product improvements, that is to bring new generations of products, it is a clear proof that those branches have innovation potential.

A proper assessment of the criterion regarding the innovation potential can be made only if we place this criterion in the world context, that is the integration into the Single European Market and globalisation, when the Romanian economy – lagging far behind developed countries and mostly based on traditional structures – became fully open and exposed to unprecedented competition. When analysing the support policies for strategic industries, Michalski points out that competition is intensifying in the world and national economies cannot any longer cope with it through traditional industrial and technological structures. Observing that, in matter of competitiveness, the stress is laid not only on the technological level and the declining traditional industries are no longer profitable, especially in the new context of economic opening, many governments tend to implement industrial policies for stimulating the efforts aimed at increasing the innovation capacity of strategic businesses and attracting valuable mobile resources from abroad: investments, know-how, etc.

Taking into account observations and analyses of the situation and the role of various industries in the new context, Michalski finds out that there is some consensus concerning the definition of strategic sectors, as follows:

- Sectors producing significant positive spill-overs, which are sources of major technological innovations that benefit not only own companies, but also suppliers, customers and the population (consumers), following the dissemination of products, services and knowledge throughout the economy and the society.
- Sectors generating scale economies based on learning, following the concentration of activities in strong production centres in close

cooperation with scientific and academic centres located in those areas for stimulating proper development of the infrastructure.

- Sectors connected with other upstream and downstream sectors in the form of clusters including industries of the same branch or related branches to which they transfer spill-overs, thus contributing to competitiveness improvement.

Another way of placing the innovation potential in the world context is proposed by Vernon, who associates the phases of the product life cycle with the countries' development stage, as each phase is consistent with one stage: new products - developed countries; mature products - medium developed countries; standardized products - less developed countries.

According to Vernon's theory, the phases of the cycle are pre-established: the product passes, during its life, through different phases, when it moves from the most developed countries to the less developed ones, along with the appearance of competitors, the disappearance of the monopoly rent and the movement of competitive advantage resulted mainly from the capitalisation of cheaper raw material and lower cost of labour in these countries. In an advanced maturity stage of products, medium-developed countries could offer competitive advantages to companies, and in an advanced standardisation stage (stagnation or even decline) of products, less developed countries could offer competitive advantages especially through lower costs of local resources. This is a general judgement framework, presented by Vernon in his model several decades ago. But it should be adjusted in accordance with the new realities of the last decades, following the integration and the entry of transnational companies into the markets of various categories of countries. For example, to penetrate the EU market, many foreign companies invest in production units and selling networks, using their own trademarks, technologies and supplies without distinction between these products and those manufactured in the countries of origin. Moreover, companies build models with the latest generation technologies, adapted to dominant characteristics of the local markets or markets similar to them, for promoting exports. For example, Renault, after taking over the Dacia Company, designed a new car, Logan, on high quality standards, and adapted it to the markets of countries with low incomes and relatively low wages. Similarly, the movement of Nokia from Germany to Romania and its location in an important industrial and academic centre, Cluj-Napoca, were mainly based on two dominant characteristics of the market: high qualification level and low cost of labour.

6.3.3. *Intensity and extension of the links between branches*

Inter-branch links constitute another criterion used by some authors to define and select strategic branches. The idea is based on the finding that only certain industrial branches stimulate the creation and the development of large networks of businesses, called clusters, since the manufacturing of complex final products destined to consumption, export or investment means a strong input to economic development. Hirschman thought that developing countries should aim at promoting industries having strong inter-branch connections. The growth of these industries would bring on the growth of other industries and, consequently, would stimulate the entire economy.

The real processes prove this idea. For example, specialized units, producing and offering various services and products (raw material, semifabs, etc.) at competitive prices, proliferate around industrial pivot units. Classic examples of such processes are the car, nuclear power, semiconductor, drug, aircraft industries in different countries and regions, where these industries, along with their networks of units with which they cooperate, hold an important share in the national income and in the employed population. The support given to these industries is vital to the countries and regions in which they are located as regards employment, incomes, infrastructure, etc.

The problems of measuring the linkages and their effects could be placed in a quantifiable macroeconomic context, using the systemic procedure and Leontief's methodology of the input-output analysis for measuring the backward linkages. According to them, the branches are characterized by greater or smaller differences in intensity and extension of the reciprocal linkages, having different direct and indirect effects of stimulating development and disseminating technologies.

For supporting the production development of certain branches ensuring the final consumption (individual and public consumption, investments and exports), it is also necessary to develop other businesses forming industrial clusters. According to Leontief's matrix describing the inter-branch flows, we determine the driving (propagated) effects produced in different proportions by the development of any branch. In accordance with the size of the technology coefficients in the matrix of direct consumptions (A) and the extension degree of the linkages with the other branches illustrated by the matrix, we get the magnitude of all (cumulated) effects shown by the reverse matrix $(I-A)^{-1}$.

Considering the 2005 inter-branch flows in Romania, computed for an aggregation level of 34 branches, we determined the matrix of direct

consumptions (A) and the reverse matrix of total consumptions $(I-A)^{-1}$. By summing up, in rows, the coefficients for each of the two matrices and analysing the sums obtained in each row, we find significant differences between branches, especially in the total coefficients of the reverse matrix. These differences show that branches produce effects of very different magnitudes in the Romanian economic system.

Some authors think that the input-output analysis is the best way to determine and select strategic branches by the magnitude of driving effects within the economic system (Hirschman, 1958; Los, 1999, 2001). But another group of authors, especially from developed economies, consider that such calculations are only theoretical exercises. For them, it is the market that should decide what branches must be developed. Moreover, in an open economy the category of manufactured goods does not even count as long as the market provides at least the marginal income⁹.

In our opinion, neither of the two opinions is realistically founded or proved in practice. The first, i.e. the input-output methodology, could be used for selection rather as a means of additional analysis and a means of economic justification. Even in this case, we should consider first the capacity of the branch to generate and launch new technologies in the economy, the trends in technological development of the branches¹⁰, as well as the trend of the demand for substitution goods. The opinion of the authors pertaining to the second group could be viable only on the assumption that there is a perfect competition in the market, which can hardly be imagined in a globalized economy, dominated by transnational oligopolies and the trend towards the concentration of capitals and industrial activities in the most attractive regions and localities.

6.3.4. Gross value added (GVA)

Gross value added per employee is a representative indicator used both as a tool for measuring economic results achieved by companies, branches and national economies and as an important barometer for assessing economic productivity of branches¹¹. Branches can be ranked or

⁹ Paul Krugman and Maurice Obstfeld, op.cit., p. 279.

¹⁰ This idea is developed in Bart Los, "Identification of Strategic Industries: A Dynamic Perspective", paper presented at The 41st European Regional Science Meeting, Zagreb, 2001.

¹¹ Gross value added is the value newly created in the production process. It measures the balance or the surplus of the value of goods and services used for production.

assessed by this indicator with regard to their inclusion in the group of branches to be supported for development or in case of crisis.

The relevance of this indicator is justified not only by its content, i.e. a synthetic and correct expression of the productivity level, but also by its sensitivity for showing the differences in productivity between branches. It is obvious that branches with a higher GVA per employee are greater contributors to countries' development and wealth, which justifies the greater attention to be paid to these branches (especially those having a greater share in exports) for working out a strategic policy for the economic development of the countries.

The statistical analysis of the GVA per employee computed for the whole industry and its branches shows great differences between branches.

According to logical reasoning, there should be a certain link between the size of GVA per employee, as a determinant variable and the size of determinant (independent) variables represented by tangible assets and intermediary consumptions. We try to check this assumption by comparing the ranks of the branches considered for the case of the three indicators (variables). For this purpose, we present in Table 1 the ranking of the branches computed for each of the three variables, GVA per employee, tangible assets, intermediary consumption.

For an easier analysis, the data in Table 1 are also graphically presented in Figure 1. Both the data in the table and the graphic presentation show a high degree of dispersion in most branches. A quite low degree of dispersion is found only in the following branches: transport means (excluding the road ones), textiles, machinery and equipment (excluding the electrical ones), extractive industry, building materials, rubber and plastic products, pulp and paper; radio, TV and communication equipment and appliances. There is a closer and more extended connection between criteria concerning the GVA per employee and tangible assets.

The data presented and their brief analysis show that the above assumption is not entirely confirmed, but partially.

Table 1
Ranking of branches computed for each criterion included in the table

Branches \ Criteria	GVA per capita	Tangible assets	Magnitude of intermediate consumption
Clothing items	1	1	26
Leatherwear and footwear	2	2	21
Transport means (excluding road means)	3	6	8
Textiles	4	8	13
Machinery and equipment (excluding electrical equipment)	5	11	15
Hydrocarbon extraction	6	25	17
Coal (mining and preparation)	7	5	16
Electrical machinery and appliances	8	7	22
Furniture	9	3	27
Extractive industry	10	13	14
Steel structures	11	4	19
Wood production and wooden products	12	15	23
Metallurgy	13	23	1
Processing industry	14	14	9
Medical, precision and optical tools	15	12	25
Publishing, printing	16	10	20
Building materials	17	17	11
Rubber, plastics	18	19	12
Electric and thermal power, gas, water	19	27	3
Chemicals	20	21	6
Pulp, paper and paper products	21	20	18
Road transport means	22	22	28
Electric power production and transport	23	28	2
Computerisation means	24	9	7
Radio an TV equipment and sets	25	16	24
Food and beverages	26	18	10
Tobacco products	27	26	5
Oil processing, coking, nuclear fuel treatment	28	24	4

Source: Based on data from 2005 and 2006 Statistical yearbooks.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Medical, precision and optical tools												⊗			x											Δ		
Publishing, printing										⊗						x					Δ							
Building materials											Δ					x	⊗											
Rubber and plastics												Δ						x	⊗									
Electric and thermal power, gas, water																			x								⊗	
Chemicals						Δ														x	⊗							
Pulp, paper and paper products																		Δ		⊗	x							
Road transport means																						x						Δ
Production, transport and distribution of electric power, thermal power and water		Δ																					x					⊗
Computer and office equipment							Δ		⊗															x				
Radio, TV and communication equipment and sets																⊗									x	Δ		
Food and beverages										Δ									⊗							x		
Tobacco products					Δ																					⊗	x	
Oil processing, coking, nuclear fuel treatment				Δ																				⊗				x

Legend: x GVA per capita; ⊗ tangible assets; Δ inter-branch consumption.

Source: Based on data from Table 1.

6.4. Relations between criteria

The existence of several criteria for defining and selecting a strategic branch raises major methodological problems concerning the criteria compatibility, measurement, unitary expression, ordering by importance.

In one of our previous studies, we tried to assess criteria for defining the strategic branches, using the scoreboard method, based on statistical data] and some quantitative and qualitative assessments¹². Although the justification and the argumentation were quite brief and strongly affected by subjectivism, we can say results are generally consistent with the opinions expressed by specialists and the general trends in long-term development of economic systems.

The content analysis of each criterion regarding the role and the economic effects reveals the existence of linkages between them, which should be considered for drawing certain conclusions. These linkages can be either synthetically presented at mezzo economic and macroeconomic levels, or analytically at microeconomic level by taking into account the market functioning and the behaviour of companies.

In this section, we present a simple model of measurement and synthetical expression of the strategic value of industrial branches, in accordance with the above criteria. Not having an operational character proper, the indicator of the strategic value still is an useful tool for mezzo- and macroeconomic analyses. It is rather used as a support and/or benchmark for formulating variants of development, or a means for signalling possible effects when a variant or other is selected. Giving this limited role to strategic value, we further analyse, in Sections 5 and 6, one of the real problems that occur and the operational mode for promoting strategic branches in the new European context, since national economies have become completely open and subject to an intensified competitive process, the old connotation of the concept regarding the national interest has no longer the same consistency with today's real life, and the support policies for strategic branches have changed their specific objectives and operational tools.

Synthetically, at the mezzo economic level the absolute strategic value of the industrial branch, i , denoted by S^i_T can be generically expressed as a function of variables as follows: *the nations' factor endowment (Z_F), the creative scientific potential of innovation and growth*

¹² Aurel Iancu, Liberalization, Integration and Industrial System, Expert Publishing House, 2002.

(C_{ST}), the intensity and the extension level of the linkages with other branches (L_{IE}) and gross value added (V_{AB}):

$$S_T = F(Z_F, C_{ST}, L_{IE}, V_{AB}) \quad (1)$$

These are heterogeneous, very complex variables, and some of them, redundant. These characteristics require an ordering of the n branches by their weight in the economy for each criterion, as follows:

$$p_{Z_F}^i = \frac{Z_F^i}{Z_F}; p_{C_{ST}}^i = \frac{C_{ST}^i}{C_{ST}}; p_{L_{IE}}^i = \frac{L_{IE}^i}{L_{IE}}; p_{V_{AB}}^i = \frac{V_{AB}^i}{V_{AB}} \quad (2)$$

We compute for each branch the sum of its weights for the four criteria:

$$\begin{aligned} P_{ST}^1 &= p_{Z_F}^1 + p_{C_{ST}}^1 + p_{L_{IE}}^1 + p_{V_{AB}}^1 \\ P_{ST}^2 &= p_{Z_F}^2 + p_{C_{ST}}^2 + p_{L_{IE}}^2 + p_{V_{AB}}^2 \\ &\dots\dots\dots \\ P_{ST}^i &= p_{Z_F}^i + p_{C_{ST}}^i + p_{L_{IE}}^i + p_{V_{AB}}^i \\ &\dots\dots\dots \\ P_{ST}^n &= p_{Z_F}^n + p_{C_{ST}}^n + p_{L_{IE}}^n + p_{V_{AB}}^n \end{aligned} \quad (3)$$

The strategic value of a branch, i , denoted by P_{ST}^i is given by the value of the highest sum of the weights, which a certain branch, i , of all n branches takes on for all four criteria, as follows:

$$P_{ST}^i > P_{ST}^1, P_{ST}^2, \dots, P_{ST}^n. \quad (4)$$

According to the definition, among all n branches, branch i attains the highest sum of weights for the four criteria considered. Therefore, branch i is considered to take on a strategic value.

Due to the lack of data on certain criteria, the applications still have a high level of difficulty.

Among all branches, there are three branches that, although extremely important, cannot be introduced into the mechanism of the definition and selection model. These are the oil, gas and electric power industries. They stand out from the other branches through the following characteristics: 1) all economic, social, military, transport, communication activities, etc. are entirely dependent on these branches; 2) the oil, gas and electric power branches form a unitary system, so that a major functioning failure or interruption makes the entire economy and all the other fields and activities stop or paralyse; 3) among all production and distribution systems, the electric power system is the most vulnerable, since production and distribution are centralized and their product can be stored only in very small quantities and for short periods, so that in case of a terrorist or armed

attack against the power system, might be out of operation, and, consequently, the entire economic system (including the defence system) could be paralysed. Very close to these characteristics and consequences we find the gas production and distribution system; 4) due, on one hand, to the above-mentioned characteristics and, on the other hand, to unequal distribution of power reserves in the world, in many countries holding rich reserves and being great producers of oil and gas, companies – either private or state-owned – established an international cartel (OPEC), and often used the energy products not only as an economic weapon, but also as a political one. That is why the oil, gas and electric power branches should take first places among strategic branches, especially in the EU, which lacks many energy resources.

6.5. Support policies for strategic industries in the context of the European integration

Once defined and selected, strategic industries should be supported by economic policy measures. In a controlled economic system, it is centralized planning that solves the problems in a relatively simple way by selecting the branches and the objectives, allotting resources on a centralized basis and monitoring the plan implementation. Things become complicated in an open economic system based on a free market economy, when the principle of competition is imposed as an iron rule, which must be considered to prevent the distortion of the market and the functioning of its mechanisms.

Traditionally, the industrial policies of the European Community were formulated and implemented by protectionist measures taken either at the level of certain branches or at the level of certain units¹³. Only in the last decade, the EU industrial policies have been based, on one hand, on indirect supply incentives (Pelkmans, 2003) for preventing market distortion and, on the other hand, on measures for eliminating or preventing actions of member states or operators aimed at distorting the market mechanisms. This new orientation is part of trend prevailing in the entire philosophy of the present economic policy of the EU. It materializes as governmental

¹³ *Jacques Pelkmans points out that in the decades prior to the Maastricht Treaty many false arguments were presented at the level of the European Community and at the national level of member countries in support of interventions in the industrial policy determined, in fact, by protectionism for the fear of very fast adjustments that could cause unexpected social effects (J. Pelkmans, op. cit., p. 271).*

interventions at various levels for determining new industrial changes and orientations regarding economic growth, employment and competitiveness, based on non-discriminatory incentives for manufacturing industrial goods and incentives for entering or leaving the branch. Therefore, it pursues not the preservation of old industrial structures, but their change and the creation of new structures based on recent achievements of knowledge, along with the development of the infrastructure and the human capital, addressed rather to regions than directly to enterprises through financial support¹⁴.

Industrial policies include a set of governmental measures pertaining to a certain philosophy of economic policy or ideology, which, in principle, cannot be solved only by domestic and international market forces. In our opinion, the main objective of industrial policies would be the achievement of the convergence of EU countries and regions in a reasonable time by raising the competitiveness level of national companies and economies, giving priority to strategic branches that produce maximum positive effects, thus avoiding the egalitarian practice of “giving a little to everyone”.

A wide range of industrial policies having different objectives and instruments and reflecting different interests and development levels are implemented worldwide. Nevertheless, the essential differences have significantly diminished. Along with the evolution of national economies and the negotiations conducted for decades within the World Trade Organisation and other world organisations (IMF, World Bank, UNCTAD, etc.) there was a general trend of transition from highly protectionist and subsidizing policies – defined as classical forms of industrial policies – characterized by major distortions of market relations and negative effects on competitiveness to increasing openness of national economies, which caused significant shocks on short term but produced positive effects on competitiveness on medium term and long term.

From many studies on various panels of cross-section statistical data, we can draw a general conclusion that there is a positive relation between the openness of national economies to international trade and the GDP per capita growth in less developed countries. The basic explanation provided by various authors is that openness promotes faster assimilation of technological knowledge by developed countries, diminishes the so-called rent-seeking, since resources are no longer distracted from activities that generate growth, etc. (Edwards, 1993; Weinhold, Rauch, 1999). These conclusions are also confirmed by countries (including Romania) that joined

¹⁴ *Reiner Martin, The Impact of the EU's Structural and Cohesion Funds of Real Convergence in the EU, NBP Conference, 2003.*

the EU recently: after the shocks suffered in the first years after the opening of their economies to the EU market during the pre-accession period, they achieved a significant growth in the GDP per capita. When referring to the EU and the new EU members, we should add to the above explanations a fact unwitnessed in other cases: the industrial policies implemented by the EU and member states fulfilling the eligibility criteria¹⁵ enjoy public financing both from national funds and from EU funds to ensure economic and social cohesion and diminution in regional disparities. For creating and allotting these funds, it is required to strictly observe the principles of a competitive market economy and to avoid and prevent distortions of prices and free competition.

When we intend to select and promote strategic branches the question is whether it is possible in the existing configuration of the EU market mechanisms based on competition. We can find an answer to this question after a brief presentation of types of industrial policies and adequate market instruments used in the EU.

To simplify, industrial policies implemented in the EU could be grouped into two classes: *sectoral (selective)* and *horizontal (neutral)*. Pelkmans mentions a third class: a mixed one, represented by the policy in the technological field based on a mix of horizontal elements and sectoral elements.

A. Sectoral (selective) industrial policies

If, in principle, the classical forms of these policies were abolished in 1990 following Bangemann's Memorandum, still the some industrial policies continued to be partially applied due to a crisis that took place especially in branches showing strong territorial (geographic) concentrations (coal mining, metallurgy, ship-building, etc.), labour-intensive branches (textile and ready-made clothing industry, car industry) and branches of national prestige (airlines).

In implementing these policies, the instruments used are state aid and crisis cartels¹⁶, adjustment aid from structural funds (especially in

¹⁵ We refer to *Structural Funds and Cohesion Funds*. Most of the *Structural Funds* are targeted to EU regions where the GDP per capita amounts to 75% of the EU average. The *Cohesion Funds*, created in 2003, are targeted to countries having a GDP per capita below 90% of the EU one; the first countries that received such funds were Greece, Ireland, Portugal and Spain, later joined by Central and Eastern European Countries.

¹⁶ *Crisis cartels* could be an alternative to state aid, aiming at an ordered decrease in capacity within branches having overcapacities for preventing the so-called *distructive competition*, since they could cause excessive adjustment costs and an adverse selection in case of bankruptcy (i.e., the units that can survive are not those that can be

declining or/and geographically concentrated sectors), (protectionist) trade policies¹⁷ in relation to non-EU countries. Since state aid generates distortions (Pelkmans, 2003) and states are often eager to easily use it to the national interest, it is strictly monitored by the European Commission and treated as an exception¹⁸ when economic and social problems of certain significance must be solved.

Influenced by a pro-competitive philosophy, EU and national public authorities reject egalitarianism even when they use sectoral (selective) policies. While applying the principle of competitiveness and offering all enterprises opportunities for enjoying comparative advantages, authorities allocate resources from (EU and national) public funds either directly to strategic branches, so that eligible units receive them according to competition and performance criteria, or indirectly by developing some factors – technologies, professional skills, infrastructure, risk capital, information, etc. – to which eligible units have equal access, also based on competition and performance.

B. Horizontal industrial policies

These (EU and national) policies consist of various categories of non-discriminating actions, equal for all economic actors, finally aiming at improving competitiveness and performance of the units and of the entire economy. These actions are classified into two large categories:

1) *General actions*, which establish the non-discriminating competition and regulation framework and generate competitiveness and economic performance. We refer here to two types of measures: a) Measures ensuring a favourable economic environment for all competitors concerning: macroeconomic stability, exchange rate, price stability, infrastructure, as well as non-discriminating rules or institutions – property right, tax regulations, labour relations, industrial property rights, environment, technical and quality rules; b) Measures for restoring competitive rules for all market operators by removing all sources of distortion in order to guarantee the singleness and the functionality of the European internal market and the functioning of national markets, namely: to eliminate inter-company agreements that could affect intra-Community trade and free competition, attempts of companies to abusively exploit their economic power in relation to other weaker companies at the expense of

recovered by minimum aid, but those (usually state-owned companies) that would need more aid (funding) with no prospects for recovery [Pelkmans, p. 282].

¹⁷ *Trade policies implying different tariff levels such as quotas, preferential treatment, voluntary export constraints, discretionary use of dumping, indication of the rules of origin for levying antidumping taxes.*

¹⁸ *Only RD&I enjoys state aid without the Commission's approval).*

the latter and of the consumers, called dominant position abuse; interventions of the member states' governments, which could distort the rules of free market by favouring state-owned enterprises or granting aid to certain private companies.

2) *Specific actions* concerning the following: a) factor market – the promotion and the development of risk capital and intangible investments (human and intellectual capital), vocational training and reconversion; b) subsidies for activities producing positive spillovers and public goods such as: information, knowledge, inventions, public services (health, defence, security), property and environment protection, consumers' information and interest protection, etc.; c) promotion and support for the activities related to standards, compliance certification and the quality of goods on the internal market, including their management for ensuring the improvement of industrial competitiveness.

All the above-mentioned should receive support from EU and national public funds, since private entrepreneurship cannot solve the problem.

The main instruments for funding EU industrial policies are the Cohesion Funds and the Structural Funds, to which access is allowed only for member countries with a GDP per capita below 90% and regions with a GDP per capita below 75% of the EU average, as well as the Framework Programme, to which access is allowed for EU member states with regard to RD&I. To these funds, we should add the co-financed amount to be provided by beneficiary countries or/and units.

While in the case of the Funds only the objectives and the actions are priorities and the branches are ignored, in the case of the Framework Programmes both the objectives and the branches or the fields are funding priorities. For example, the 2007-2013 Framework Programme establishes as priority (strategic) branches the following: health, food, agriculture and biotechnologies, information technology and communications, nanotechnologies, energy, environment, transport (including air transport). In fact, as regards the EU's interest, they are considered strategy branches.

Comparing the contents of the two categories of industrial policies with the structure and the destination of the funds (Structural and Cohesion Funds, Framework Programmes, National Programmes for RD&I Funding, etc.), we find the following: an obvious orientation of the EU towards free market relations; a close relation between horizontal industrial policies and sectoral policies based on competitiveness; a substantial increase in funds allotted to industrial policies.

6.6. The role of the company on an open competitive market

The questions concerning the state aid refer not to whether they should be granted, but rather to how they should be granted to attain the objectives, that is, to become an efficient means of achieving economic convergence and to stimulate the development of strategic branches.

There are two important ways of using state aid:

1. Direct changing and upgrading of *the industrial production structure* (the priority development of strategic branches, etc.), using the following instruments: subsidizing the interests on loans for capital investments, manipulating the exchange rate by under evaluating the national currency in order to make imports more expensive and to stimulate exports, diminishing the taxes, manipulating certain tariff or non-tariff instruments of the trade policy, subsidizing the losses. Of course, this way of using subsidies ignores, on one hand, the market distortions and, on the other hand, the requirements of an open free market that companies should achieve a comparative advantage.
2. Changing and upgrading *the structure of factor endowment of the nations and the regions*, as follows: developing and modernizing the infrastructure, the human and intellectual capital and the R&D networks corresponding to strategic fields and branches, stimulating savings and investments of physical capital and attracting foreign investments, etc. It is worth mentioning that this way of using funds is consistent with requirements of an open, free market, so that companies should achieve a comparative advantage on a market free of distortions caused by interventionist policies¹⁹.

Which of the two ways guarantees the achievement of higher and sustainable growth rates in less developed countries and ensures the viability of companies competing on the European Single Market? To answer this question we should take into account the fact that, in principle, subsidizing should not be considered a mere gift given to somebody in need (a sort of alms), but a means of stimulating or strengthening the companies to be able to win the battle on a strong competitive market²⁰.

¹⁹ Lin defines the two ways as strategic alternatives, namely: the first neglects the comparative advantage and the second pursues the comparative advantage (Justin Yifu Lin, "Development Strategy, Viability, and Economic Convergence", William Davidson Working Paper Number 409, October 2001).

²⁰ It is a paraphrase of an old Chinese proverb: Giving somebody a fish means feeding him one day, but offering him an angling rod and teaching him to fish

Romania's experience in the last two decades demonstrates that a direct support policy for priority development of certain branches, without ensuring the natural viability of companies acting on an open competitive market, is foredoomed to failure. Indeed, after the liberalisation and the opening of Romania's national market in the early 1990's, many companies, supported by subsidies for decades, could not stand competition and vanished or became bankrupt. The collapse occurred mainly in capital- and technology-intensive industrial branches because of shortages and the high cost of these factors in a still undeveloped economy.

At the same time companies from labour-intensive branches, especially ready-made clothing and product assemblage companies, care manufactures and IT&C companies, proved their viability and achieved the comparative advantage on European markets owing to labour abundance and low cost if compared to the European countries. Also, companies using domestic natural resources – furniture, building materials, cement, aluminium, oil refining and oil chemistry – maintained their viability. Along with the liberalisation of markets (products, factors and services), the elimination of distortions and the opening of the Romanian economy to the European Single Market, the branches and the locations (regions and localities) offering advantages to competitors in accordance with regulations and principles established for the functioning of the European competitive markets became attractive both to foreign capital and to domestic capital. The example of Romania and of other countries that experienced the same evolution confirmed an old finding with regard to the operation of any company in a competitive economy. To be viable, a company should cover its expenditures with incomes and achieve a normal profit for investments in new technologies and in the development of physical capital and human capital in order to cope with competition on the European Single Market. If the company fails to achieve this performance and receives subsidies from the state, it loses viability. Learning from this experience, companies choose locations in various countries and regions in accordance with several criteria, among which we distinguish the mode of market operation, the cost of resources and the advantages offered by authorities in compliance with the requirements of competitive market mechanisms and the EU and national regulations.

The advantages expected today by companies from governmental and local authorities concern mainly the general and specific conditions created by these authorities for stimulating business activities in relation to supply and demand. As regards the supply, competitors expect to enjoy a

mean making him able to feed himself all his life.

proper infrastructure, labour resources, human capital and specialised intellectual capital, as well as networks of schools, universities and specialized research institutes, as generators of human capital, intellectual capital, and knowledge. As regards the demand, competitors expect to enjoy dynamic and functional markets for trading their products, as well as institutions that protect the property rights and set rules for the functioning of the market, which helps to diminish the companies' trading costs and to fluidize the circulation of physical capital, human capital, and technologies on the national level and the European level.

If, according to competition regulations, authorities are no longer allowed to directly involve in the orientation and development of the companies and branches, one might believe that also the policy for promoting and developing strategic branches is not possible and that the discussions on this issue have no point. But things are not like that. According to the reforms concerning the utilisation of European and national funds and the Decisions of the Lisbon European Council, EU and national authorities have on hand ways of action and instruments²¹ that should not distort the market and affect the companies' viability, but which could help to attain objectives indirectly by orienting and developing national production factors – human capital and intellectual capital, networks of schools, universities, laboratories and research institutes, infrastructure. To produce maximum effects, these factors should not be allowed to develop uncontrolled, by chaotic market signals. They should be scientifically treated and oriented in accordance with an elaborate national strategy, taking into account the trends in technology development, the evolution of the population and of the natural resource structure, the capitalisation of new energy sources and materials, the trends in the IT&C and the impact on education and the structure of human capital and intellectual capital.

Taking into account the orientation and the development opportunities, the profile of the strategic branches can be drawn properly and realistically, without distorting the market. A support to this orientation through complex programmes for funding at national level and EU level is an important means of attracting companies with foreign capital or Romanian capital and companies involved in developing these branches.

²¹ *The requirements of the European Council in Lisbon refer to making greater efforts for promoting an adequate competitive environment and lowering the general level of the state aid, along with a transition from supporting individual companies and sectors to a horizontal economic policy for changing and updating the endowment with general interest factors – first of all – of less developed nations and regions: RD&I, human capital and intellectual capital, infrastructure, etc.*

6.7. Conclusions

In spite of the rejections and the controversies concerning the recognition of the strategic industries and the implementation of policies favouring their development, the question of promoting and supporting the strategic industries still is an important and urgent one – even in the context of regional integration and globalisation – for countries, in general, with regard to sectors facing high risks to functioning and supply possibilities, especially energy ones (oil, gas, electric power), as well as for countries that have to recover economic delays.

In both cases, market relations can hardly solve the problems of medium- and long-term economic development without implementing a clear and firm policy without support from the public power at different levels. The market is blind as regards medium- and long-term projects, especially when they are large-scale projects, such as those concerning the national and EU's energy safety, the development of branches based on knowledge and new technologies, the development of branches bearing technological progress and having broad linkages in the economy, etc.

The implementation of policies for promoting and supporting the strategic branches implies, first, the definition of the concept of strategic branch and, second, their identification and selection. For approaching the practical interest, we adopted in our paper a broader connotation for defining the concept than that circulated in economic literature and, also, we suggested four criteria for identifying and selecting the strategic industrial branches, as well as a model for assembling and harmonizing the criteria.

In the context of the expanding globalisation and integration and the opening of the economies, the strongest factor for defining and selecting the strategic branches is the scientific and innovation potential, i.e. what ensures, to the greatest extent, the competitive advantage of a company or a branch.

Defining and selecting the strategic branches represent an important step but not enough. Another step, equally important for defining the policies and selecting the industry producing maximum results. In conditions of market economy, two categories of basic industrial policies – sectoral (selective) and horizontal (neutral) – and a combination of the two (especially in the technological field) are used.

Along with the evolution of the national economies and the negotiations held for decades within certain international economic organisations, there was a general trend of transition from strongly protectionist and subsidizing policies – defined as classical forms of industrial policies with major distortions of the market relations that produce

negative effects on competitiveness – to increasing openness of the national economies and more developed pro competitive forms. Nevertheless, a sudden break with old industrial policies was not possible in the EU because of some crises having social consequences especially for branches characterized by strong territorial concentration (coal industry, metallurgy, shipbuilding, etc.) and labour-intensive branches (textile and clothing industry, car industry, etc.). The prevailing policies in the EU are horizontal industrial policies based on actions classified into two categories: 1) general measures for creating an economic environment favourable to all competitors (macroeconomic stability, exchange rate, infrastructure, non-discriminating rules concerning the property rights, fiscal regulations, labour relations, industrial property rights, environment, technical and quality rules); 2) specific measures regarding the following: a) the factor market – the promotion and development of the risk capital and intangible investments (human capital and intellectual capital), vocational training and reconversion; b) subsidies for activities producing positive spillovers and public goods such as information, knowledge, inventions, public services (health, defence, security), property and environment protection, the consumer's information and interest protection, etc.; c) the promotion of and support for activities regarding the standards, the certification of the compliance and the quality of goods on the domestic market.

All actions are supported by public funding at the EU level and the national level, and the actions related to state aid require co-financing to a certain extent. In principle, the state aid should aim at ensuring the companies' viability and this can be achieved by developing and modernizing the infrastructure, the human capital and the intellectual capital, as well as the RD&I networks corresponding to strategic branches. Experience proved that state aid could contribute to the development of strategic branches only by means of a competitive market for viable companies, able to ensure a dynamic comparative advantage.

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7. INSTITUTIONAL CONVERGENCE*

7.1. Introduction: types of convergence

Not long ago, the term of convergence was only used to define the trend of approximating the development levels of real economies in order to catch up with the advanced economies. It is during the last decade that the term was extended to the evolution of some processes related to the fulfilment of the requirements for the accession to the EU, by achieving institutional and administrative compatibility (transposing and implementing the Community *acquis*), as well as processes related to the economic and monetary stability and fulfilment of the requirements for the accession to the euro zone, as a constitutional condition for the transition to an upper stage of their integration.

To clarify such questions, in this introduction we define convergence by the three existing main areas (institutional, nominal and real) and the convergence level of the CEE countries in relation to the EU average using adequate indicators and models.

Analysing further the different aspects of the economic convergence in close relation to the European integration, one clearly recognizes the following three types (axes) of convergence (Figure 1):

Institutional convergence = Compliance of the national institutions with the EU ones

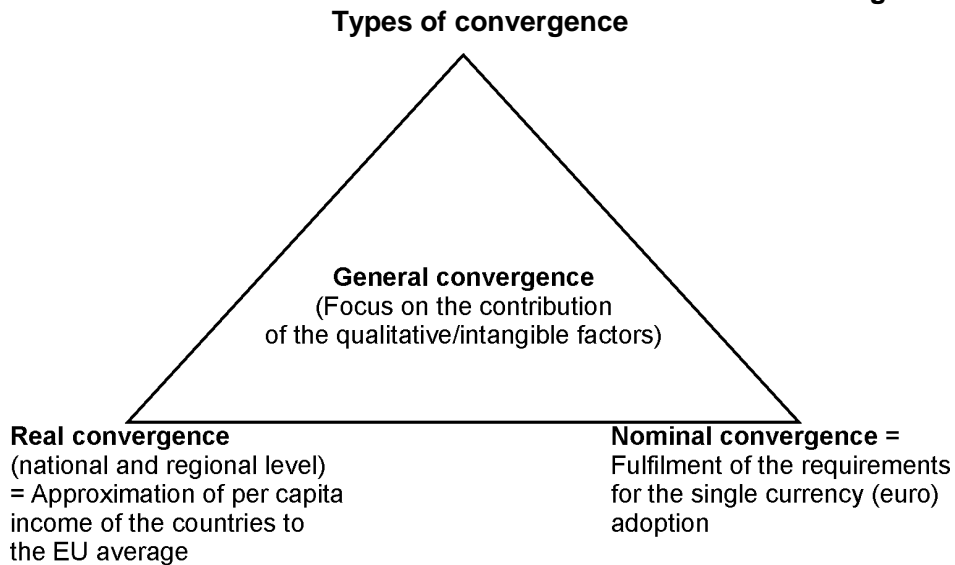
a) *Institutional convergence* aimed at achieving the compatibility, up to the unification, of the institutional system structures of the countries, as well as the improvement of the institutions quality, in order to assure the efficient functioning of the economy and the appropriate communication among countries and regions for the attainment of the common objectives.

b) *Nominal convergence* in the monetary and financial field, in order to achieve economic stability and the transition to the European single currency.

c) *Real convergence* is a hypothesis according to which the poor economies tend to increase per capita GDP faster than the rich ones so that in a certain period of time the gap between the two categories of economies should be filled.

* The study carried out within the CEEX Programme – Project “Economic Convergence and Role of Knowledge in Relation to the Eu Integration”, No. 220/2006. Published in *Oeconomica* No. 1, 2007 and in Aurel Iancu, *Economic Convergence*, vol. 1, Editura Academiei Romane and CHBech, Bucharest, 2008.

Figure 1



As for Romania, all three types of convergence are of special interest, taking into account, on the one hand, the major gap between Romania and the EU member countries in the real economy development (per capita GDP and other level indicators) and, on the other hand, the requirements for Romania's integration into the EU and the Economic and Monetary Union (EMU), that is, the compatibility of the Romanian institutional and administrative structures and mechanisms with the EU ones, a high degree of economic and financial stability and the transition to the European single currency. Anyhow, the long experience of the countries shows that only the national economies at a high development level, with modern and efficient institutions, can take the great challenge of competition in all fields, especially in the context of the opening of such economies. They can stimulate the economic development and the contribution of the new knowledge-based factors to the economic growth, as well as their assimilation and absorption by the economy.

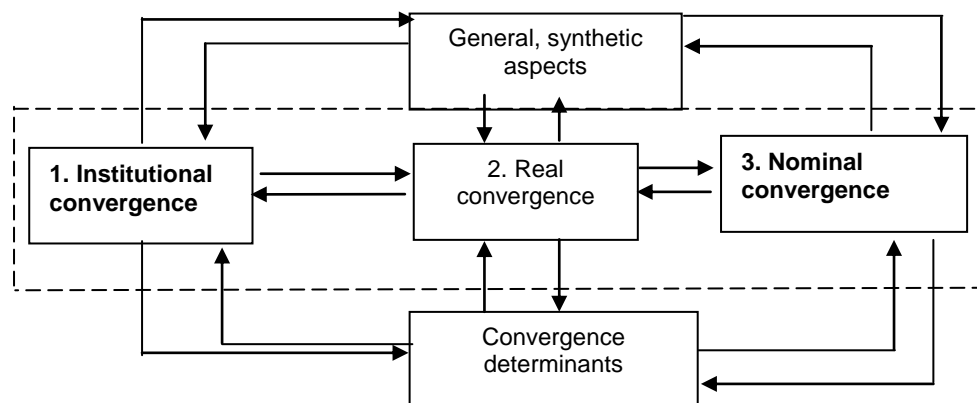
Almost the whole research conducted by the mid 1990s was aimed at the convergence of the real economy. Only in the last decade the issues concerning the institutional and nominal convergence were approached by the economic research, especially when studying the economic reforms in the CEE countries and the lead-up to the accession to the EU and Economic and Monetary Union (EMU). The researchers found out that the significant gap between countries in terms of economic development and

performance (GDP per capita, per worker or working time) could not be fully explained without introducing the institutional factor, which played a major role in either stimulating or hindering economic convergence. Also, it is obvious that the transition to the market economy implies, above all, the institutional transformation of the economic systems, while the integration into the EU requires the compatibility of the institutional system of the applicant countries with the EU's institutional system. At the same time, the accession of the EU member countries to the euro zone is based on the compliance of the financial and monetary indicators with the indicators of the leading countries, already in the euro zone.

Convergence is one of the benchmarks of the European integration strategy. To be operational, it needs, on the one hand, the proper definition of each type of convergence and each factor of the general convergence, and, on the other hand, the assembling of these types as a coherent system, considering both the direction and intensity of the links and the effects of the factor action and impulses. Figure 2 shows the types of convergence and their connections within the whole economic system.

Figure 2

Diagram of the connection among types of convergence and determinants



Also, in order to be operational the concept of convergence needs evaluation and/or numerical expression of both the convergence level and the factor influence on convergence, as a whole or/and by type. It requires the creation and utilisation of a comprehensive system of indicators, enabling the aggregation by type of convergence and stage of generalisation.

Analysing the economic convergence in relation to the integration into the EU and agreeing that the institutions form the environment that could influence positively or negatively the economic and social activity of a country, it seems very reasonable to harmonize the national institutions with those of the EU, to make them convergent, by adequate transformation and improvement of their quality and effectiveness. Thus, the institutions could become an increasingly active and effective factor of economic development for bridging the gaps in the real economy¹.

Being long overlooked by the conventional economic theory², the institutional dimension of the economies is coming into its own within the new paradigm. More and more support was given to the idea that the institutions were part of the category of the important factors able to determine the nations' economic growth or decline, while the institutional factor stimulated or blocked the economic and social mechanisms³.

Considering the positive role to be played by the institutional system in the Central and East-European (CEE) economies, this system has become not only the object of a profound study, but also, in the beginning, the ground of major changes, and, later, the ground for the compliance with the structure and exigencies of the EU's institutional system – an important criterion for the countries' accession to and integration into the EU and the European Monetary Union (EMU). The changes taking place in the CEE economies in the last decades, the errors made by some of these countries during such changes have revealed how important the institutional system actually is. For example, here we refer to the dramatic consequences due to some reforming measures (price liberalisation, privatisation, etc.) taken without rigorous and coherent regulations, but with weak and corrupt justice, police and control institutions. The institutional gap caused a real disaster to the economic and social life of the countries that initiated the transition without the coherent functioning of the system in the new context.

The great importance of the institutional system was equally revealed during the lead-up to the countries' accession to and integration into the EU, that is, assuring the compliance of the national institutional systems with the

¹ *Mancur Olson, The Rise and Decline of Nations, Yale University Press, New Haven, 1982.*

² *In his inaugural lecture as an economic policy professor at Cambridge, Marshall said that the major fallacy of the English economists in the early 19th century was the inability to see how the industry habits and institutions were exposed to change (A. Marshall, The Present Position of Economics in Memorials of Alfred Marshall, ed. A.C. Pigou, Macmillan 1926, p. 152-174.).*

³ *Mancur Olson, The Rise and Decline of Nations, Yale University Press, New Haven, 1982.*

EU's institutional system, in accordance with the rules set by the European Councils in Copenhagen (1993), Luxemburg (1997) and Feira (2000).

Although institutions count a lot in the real economic life and may be analysed with the tools of the economic theory⁴, the approach used until now is far from turning the capability of this research field to good account, both in extent and in depth. The main cause is not the researchers' inability to understand the role of the institutions in the economy, but the difficulty to measure the processes and express them in quantitative indicators and the reduced capability to aggregate the partial indicators as credible, significant, rigorous and synthetic indicators, in a world still dominated by the belief that the measurement is the fundamental criterion of the scientific level of any research.

Since the issues concerning the institutions are approached in an inconsistent way or with different connotations not only in practice, but also by the economic literature, and the accession and integration are strictly dependent on the way the institutions are coping with the above requirements, in this chapter we shall briefly present the following: some opinions and comments on the definition and classification of the types of institutions that assure the functioning and performance of the national markets and the Single European Market; the criteria of evaluation of the institutional quality and effectiveness; the structure and principles of the Community acquis; the measurement of the compliance of the Romanian legislation and that of the EU member countries with the Community acquis and the compliance monitoring; the evaluation of the correlation between the countries' development level and the state of the institutional systems.

7.2. Comments on the definition of the institution

The real and nominal economy, as well as the social and political life, cannot develop properly without a comprehensive and coherent network of formal and informal rules, a set of rights and obligations agreed, guaranteed and monitored by the public power and civil society. The organisations of any kind (economic, social, political, judiciary ones, etc.) are meant to apply, monitor and observe the system of agreed rules. Without a system of rules and without observing such rules, the order required for the economic life could not exist, the economic agents' activity would cease and the environment would be unattractive or even hostile to investment and general business.

⁴ R.C.O. Matthews, "The Economics of Institutions and the Sources of Growth", *The Economic Journal*, vol. 96, No. 384, Dec. 1986.

In the light of the new institutional economics, Ahsan (2001) thinks that institutions form a framework enabling the promotion of the economic and non-economic exchange in the national, European and world context. Lin and Nugent (1995) consider that the institutions are a set of human behaviour rules and public authority tools for governing and ordering the human beings' interactions, to partially help the modelling of the people's expectations.

Even if we consider only the performance of the national markets in relation to the EU's exigencies, the set of rules enabling the markets to function properly should include both market institutions and the institutions outside the market that support directly and indirectly the market performance.

Matthews thinks that the general concept of institution is rather a set of formalised and non-formalised rights and obligations affecting the people's economic life in relation to the following defining elements: 1) the property rights set by law; 2) the economic behavioural conventions and rules, viewed as a legal supplement, which, under certain circumstances, is usually more effective than the law; 3) types of contract used; 4) the state's authority for protecting and guaranteeing the formalised and non-formalised rights and obligations of the economic, social and political subjects, as well as the functioning of the institutions⁵.

Douglas North⁶ sees the institutions rather as "rules of the game", meant not only to assure low costs for the application and protection of the property rights, the enforcement of the bankruptcy law, etc., but also to provide incentives for decentralised decision-making and functional competitive markets. According to North, the institutions express: a) the formal governing, judiciary rules and contract laws, property rights, etc.; b) the informal (complementary to formal) rules, consisting of conventions, behaviour rules, conduct rules, customs, routine, tradition, including the degree of trust; c) the effective enforcement of the rules by the governmental bodies and by the non-governmental and civil society organisations for putting into practice and monitoring the game and the application of the game rules.

Neither the establishment, nor the application and modification of the institutions do tell us anything about the kind of rules or the order: order for

⁵ R.C.O. Matthews, "The Economics of Institutions and the Sources of Growth", *The Economic Journal*, vol. 96, No. 384, Dec. 1986, p. 904-905.

⁶ Douglas North, "Institutions. Institutional Changes and Economic Performance", Cambridge University Press, 1990; Douglas North, "Prologue", in John Brodak and John V.C. Nye (eds), *The Frontiers of the New Institutional Economics*, San Diego, California Academy Press, 1997.

assuring the development and freedom of action or order for limiting them? The effective and efficient functioning of the market institutions is determined not only by the economic agent's capability to organize and function in a competitive environment, but to a greater extent by the governmental bodies' capability to set and enforce the rules of the game, and amend the rules, if necessary. At the same time, the public power's task is to supervise the proper functioning of the private and public sectors and the contract fulfilment and to effectively protect the property rights, and, finally, to collect the incomes for financing the public sector⁷.

Therefore, for the institutional construction and reconstruction (reform) of the countries aiming at the institutional convergence with the EU, the public authority adopts the EU's formal rules as benchmarks. As a matter of fact, the CEE countries that have acceded or are acceding now to the EU have made great efforts to transpose and assimilate the EU's institutional system. But all these important institutions are part of the category of formal rules. They are based on a set of informal rules, that are much behind and unrefined, thus hindering the functioning of the new formal institutions. That is why it is not surprising that the performance of such countries is still low. The informal rules and the related constraints still persist in the emerging economies. From it we may draw an important conclusion: the transfer of the formal economic, political and social rules to the less developed CEE countries is a must. But it is not enough for achieving a performance comparable with that of the developed countries considered benchmarks⁸. To improve the performance of the institutional system, it is also necessary to change the informal institutions (rules) by both their formalisation (if possible) and, especially, by using of various forms of education of the people for amending the rules and enforcing the positive ones. It is only this way that the whole set of institutions can be made compatible and the performance can be guaranteed.

7.3. Types of institution in relation to the market

To get a proper picture of the connotation and structure of the institutions, a further step is taken by classifying them into two large categories: 1) market institutions connected with the law system that formulates and protects the property rights, establishes and applies the

⁷ Saleh M. Nsoul, "The Changing Institutional Needs of the Transition Economies and the Role of the IMF", *East-West Conference 2003, November 2-4, 2003*.

⁸ Douglas North, "Economic Performance through Time", *The American Economic Review*, vol. 84, No. 3, June 1994, p. 336.

contracting system and gives the power to set and apply sanctions; 2) the public and non-public (quasi-market) institutions, meant to meet the market economy requirements. The latter may have unexpected effects, such as constraints in relation to the free forces of the market, bureaucracy, etc.

Box 1: Types of institution supporting the market

As for the market-supporting institutions, Rodrik considers five types, as follows⁹:

1. *The property rights.* The basic element for the development of modern economies is the guarantee of the safety and stability of the property rights and, especially, the entrepreneur's rights to control the outcome of the assets he manages. Often, such rights are stronger than the formal property rights, unless the latter are clearly defined. In practice, the rights to control the outcome – that may be clearer or less clear – are supported by the combination of legislation, rigorous enforcement of the private property laws, existing customs and tradition.
2. *The regulation and coordination institutions for eliminating the market shortcomings.* Besides major advantages, free markets have negative economic and social effects; these aspects are comprehensively analysed by the economic theory and widely recognized in the operational area¹⁰. The action taken to counteract the causes of such effects led to a great diversity of institutions – juridical rules and organisations – that regulate, enforce and control the enforcement of the norms. The shortcomings of the free markets requiring regulation institutions for the following fields: competition, banking and financial supervision, environment protection, service and capital movement, SME's, etc. For Rodrik, the larger the free markets are, the more difficult and rigorous the tasks and responsibilities of the regulation institutions are.
3. *The macroeconomic stabilisation institutions.* The market mechanisms cannot assure the economic and financial stability automatically. To avoid economic and financial crises, it is necessary to create and make functional a set of institutions for supervising and modelling the evolution of the macroeconomic indicators (inflation, unemployment, interests, current account of capital, budget deficit, exchange rates, etc.) by means of the financial-banking institutional system, coordinated by the Central Bank.
4. *The institutions for social policy and employment.* Their objective is to assure economic and social stability and social cohesion. They cover a wide range of domains, such as: labour market, social dialogue, equal opportunities for women and men, non-discrimination, employment, social security, public health, labour culture based on the quality of labour, elimination of risks and partnerships, management of the ethnical and social conflicts.

⁹ Dani Rodrik, "Institutions for High-Quality Growth: What They Are and How to Acquire Them", IMF Conference on Second Generation Reforms, 1999.

¹⁰ The market shortcomings related to the products, services, capital, labour, etc. are caused by the positive external effects of the technological progress and knowledge, by the negative external effects of pollution, by the effects of the incomplete information and their high costs. (For further details, see A. Iancu, Bazele teoriei politicii economice, All-Beck, București, 1998).

5. *The institutions for the management of conflicts and antisocial actions.* In any society there are gaps both between the social groups and between their members for economic, political and ethnical reasons. The societies undergoing deep transformation – like the ex-communist ones, where the reconsideration of the property rights, economic restructuring, institutional reorganisation are taking place – also undergo changes in the resource and income distribution and are confronted with many social conflicts that cause further corruption and crimes. All cause the wasting of the economic and human resources, the disregard for labour and creation, the dissolution of the social organisation, the undermining of the economy and social order.

The elimination of all shortcomings is only possible by strong institutions, able to consolidate the state of law and rule of law, a moral political class, strong, independent justice under social control, freely elected representative political institutions, incorruptible trade union leaders, social partnerships, institutionalised representation of the minority groups. By means of such institutions, social conflicts and antisocial actions may be prevented and, instead, cooperation to save resources and direct them to useful, productive activities¹¹ could be promoted.

7.4. Problems and ways to achieve the institutional compliance in the EU

Market economies are based on a wide range of institutions. In this matter, the worldwide practice is either to set up experimentally institutions in accordance with the local conditions or to adopt (import) institutions from more developed countries, taken as a model, based on best practice.

Although, as far back as the early 1990's, Romania turned its attention to the integration into the EU by concluding the Association Treaty in the institutional area, it adopted a policy based on gradual experimental changes. Only in 1996, Romania began to adopt the European institutions effectively, at a quick pace.

The adoption of the EU institutions (during the pre-accession and post-accession stages) follows two ways: by the legal effects of different

¹¹ *Most of the institutions pertaining to the five types have a public or semi-public character. Functionally, they are integral part of the market economy, since they assure the adjustment, stabilisation, legitimizing and monitoring of the economies. According to the new vision, as Rodrik points out, the idea that there is an opposition between the market and the state and between the free market and the state interventionism becomes superfluous.*

sources of Community law on the national level; by transposing and implementing the Community acquis in the member countries.

a) *Juridical effects of the Community law.* The EU legislation (forming the Community acquis) is based on the following:

- The primary legislation, consisting of the treaties and agreements of the same level, concluded between the EU member countries.
- The secondary legislation, consisting of the regulations adopted by the EU institutions, namely: regulations, directives, decisions, recommendations, opinions, communications.
- The jurisprudence of the European Courts: Court of Justice of the European Communities (ECJ) and the Court of First Instance (CFI).

The relations between the EU and the member countries are based on the principle of the Community law prevalence as well as on the direct effect doctrine, according to which some provisions of the EU legislation may be directly applied by the member countries' courts, even if the provisions have not been transposed. Therefore, the Community law sources produce specific juridical effects in the member countries, as follows: 1) the primary legislation (treaties and agreements of a similar rank), the regulations and jurisprudence of the European Courts have the power of law in the member countries, and no other legislative measures are needed to apply them; 2) the directives set the legislative objectives of the member countries, but these countries are free to opt for the form and methods of adoption and application; 3) The EU (Commission's) decisions produce direct juridical effects on an individual basis, being fully mandatory (for example, the interdiction to grant state aid, the cancellation of some contracts/agreements with negative effects on competition); 4) the recommendations, opinions, communications, notifications and guidelines from the EU institutions do not imply direct, but rather indirect, legal obligations. These tools are related to concrete criteria of interpretation and enforcement of the EU legislation, guidance, clarification of some problems and actions for the enforcement of the EU regulations.

b) *The transposing and application of the Community acquis to the member countries.* The Community acquis covers the following three main fields: 1) the internal market (Pillar I)¹²; 2) Common Foreign and Security Policy (Pillar II); 3) justice and foreign affairs (Pillar III). Among them, the internal market domain may be considered the most important, as regards

¹² *The internal market includes the four fundamental freedoms of movement (of individuals, goods, services and capital) as well as the common policies for agriculture, industry, banking and finance, competition, trade, environment protection, taxation, labour and social protection, health.*

the coverage and complexity degree of the activities, as well as with the legislative competence of the Community and national institutions.

Due to the significant difference between the institutional structure of the former communist countries applicant for the EU and that of the EU member countries, as well as the need for their harmonisation, the European Council in Copenhagen (1993) set the political, economic and juridical criteria of principle to be observed for becoming a EU member, and, beginning with the accession negotiations, the Council in Luxembourg in 1997 pointed out that, besides the adoption of the Community acquis, the candidate countries should make endeavours for its implementation. Also, the European Council in Feira (2000) restated the dependence of the progress in the accession negotiations on the inclusion of the acquis by the candidate countries in the internal legislation and, especially, on its effective implementation. In fact, the analyses, the periodical reports and the changes carried out in the entire accession period were focused on strengthening the administrative and judicial capability of effectively transposing and implementing the Community acquis. The selective implementation assures the compliance of the institutions of all EU member countries, and their integration into the EU's functional mechanisms.

The transposition of the acquis is the result of a complicated process, especially in a two-chamber parliamentary system, when there are transparty group interests and high-level corruption. For example, even under the threat of postponing Romania's accession to the EU or/and applying the safeguarding clauses, the draft laws for the establishment of the National Anticorruption Prosecutor's Office, for moral integrity and wealth control faced much trouble. Even greater troubles occurred during the enforcement of the promulgated laws, especially if they affected the individual or group interests and required expertise and funding for their enforcement or amending as well as a new institutional construction.

The embedding of the Community acquis takes place at both the pre-accession stage and the post-accession one and is related to two large categories of actions: 1) transposition of legislation; and 2) effective implementation. The evaluation and monitoring of the level of transposition and implementation of the acquis and the institutional capability of the countries are achieved in various ways and with various tools, partially specific to the stage of the relations with the EU (candidate or member country).

During the lead-up to the accession, several supporting and monitoring tools were used, such as: technical assistance programmes, formal and informal channels of communication between the Commission and the applicant countries' administration, the data collected and analyses

carried out by the Commission for working out the annual reports, the national plans for the *acquis* adoption, the reports and documents prepared for the accession negotiation rounds. All of them were accompanied by the identification of concrete objectives for the institutional construction and for strengthening the administrative and judicial capability to transpose and implement the *acquis*¹³. The accession of the countries to the EU is strictly connected with the observance of the criteria and the *aquis* transposition and implementation.

The Community *acquis* transposition and implementation are not completed with the countries' accession to the EU. During the post-accession period, the member countries must transpose and apply further the new changes and amendments, and the EU must monitor their transposing and application¹⁴.

7.5. Analytical tools and empiric evaluation of the institutional convergence

The in-depth analysis and the extension of modelling to the institutional area required stronger efforts to formulate and operate new notions by means of quantitative and qualitative indicators of various degrees of generalisation and/or aggregation. As long as the research in this field only used verbal reasoning, without analytical tools, no major steps could be taken for extending and deepening the analyses of the role and impact of the institutions within the economic systems and for checking the hypotheses. The introduction and operationalisation of new concepts, by measurement and analysis tools, paved the way for new approaches.

In spite of all difficulties, attempts were made within the empiric research, especially on transition economies, to measure the level of the quantitative and qualitative development of the institutions, the institutional

¹³ Constantin Ciupagea et al., "An assessment of the recent economic, social, legislative and institutional outlook in the New Member States", Study No. 9, European Institute of Romania, *Pre-Accession Impact Studies (PAIS III)*, 2006, pp. 57-58.

¹⁴ The periodical reports of the European Commission on the transposition of the EU Directives are published in *Journal of Market Scoreboards*, and the periodical reports of the Commission on the *acquis* application in the Annual Reports on Monitoring the Application of Community Laws. The reports point out the delays, identify the obstacles and make recommendations that rather produce effects of public image, since the critical remarks may throw an unfavourable light on those countries.

changes, as well as the impact of these changes on the economic results. They became possible since operational analytical notions and tools were introduced, such as: the degree of compliance of the national legislation with the Community acquis, the institutional capital, the social capital¹⁵ or the social infrastructure, as well as the indicators of different degrees of aggregation and composite indicators.

7.5.1. Assessment of the compliance degree of the legislation

To assess the compliance degree of the legislation of a country or a group of countries with the Community acquis, the following measurement indicators may be used: the degree of the Community acquis transposition into the legislation of the countries (group of countries) considered in the study¹⁶ and the compliance degree of the regulations adopted by the countries transposing the Community acquis¹⁷.

¹⁵ According to the ordinary meaning in our country, the social capital is either the accounting value or the market value of a company. In our study, the social capital is the value of the informal institutions. To avoid any confusion, the term of social infrastructure is often used instead of social capital.

¹⁶ The indicator concerning the degree of the Community acquis transposing into the legislation of the countries is computed by the relation:

$$K_T = \frac{n_{DT}C_D + n_{DZT}C_{DZ} + n_{AT}C_A}{n_D C_D + n_{DZ} C_{DZ} + n_A C_A}$$

where: K_T – degree of transposing; n_{DT} – number of transposed directives; n_D – number of EU directives; n_{DZT} – number of transposed decisions; n_{DZ} – number of EU decisions; n_{AT} – number of other transposed documents; n_A – number of other EU documents; C_D – coefficient of the directives; C_{DZ} – coefficient of the decisions; C_A – coefficient of other Community documents. The coefficients were considered for the computation of different values, according to the specific features of the regulations, as follows:

- Directives with value 1;
- Decisions with value 0.9;
- Other regulations, 0.2.

¹⁷ The indicators regarding the compliance degree is computed according to the relation:

$$K_{comp} = \frac{M_t C_t + M_p C_p + M_{c/in} C_{c/in}}{M}$$

where: K_{comp} – compliance degree; M_t – national regulations fully compatible with the transposed community regulations; M_p – idem, partially compatible; $M_{c/in}$ – idem, incompatible or with unknown compatibility; $M = M_t + M_p + M_{c/in}$. The coefficients were considered at different values by the compliance level, thus: 1 – total

Within the Research Programme called “Pre-accession Impact Studies II (PAIS II)” of the European Institute in Romania, a research team calculated the two indicators for Romania’s economy, taking into account the 2002 Community acquis and the Romanian legislation in the first month of 2004¹⁸. The computation of the compliance degree by two indicators – transposing degree and compatibility degree – was carried out for each negotiation chapter and the whole economy, considering that the negotiations on some chapters were closed (provisionally) and the other chapters were under negotiation (open). The results of the computation per each negotiation chapter and per total, by the formulas presented in the footnotes, are shown in Table 1.

Table 1

Degree of compliance of the Romanian legislation (2004) and the Community acquis (2002) (%)

Negotiation Chapters	Transposing Degree	Compliance Degree
A. Negotiated Chapters (provisionally closed)		
1. Free movement of goods	93.1	91.90
2. Free movement of persons	93.70	70.70
4. Free movement of capital	100.00	85.70
5. Right of the companies	90.00	92.00
8. Fishing	-	55.00
9. Transport policy	70.80	84.10
10. Taxes	90.10	91.10
11. Economic and Monetary Union	82.20	60.40
12. Statistics	86.40	87.60
13. Social and employment policy	94.20	94.20
15. Industrial policy	100.00	50.00
16. SME's	83.10	90.10
17. Science and research	100.00	100.00
18. Education, training and youth	84.50	81.50

compliance; $0 < C_p < 1$ – partial compatibility; 0 – incompatibility or unknown compatibility.

¹⁸ Augustin Fuera, Steliana Sandu et al., “A Chapter-by-Chapter Assessment of the Conformity of the Romanian Legislation with the Acquis Communautaire at the level of the year 2002”, *Pre-Accession Impact Studies (PAIS II)*, Study No. 1, The European Institute of Romania, 2006.

Negotiation Chapters	Transposing Degree	Compliance Degree
19. Telecommunications and information technology	83.30	90.00
20. Culture and audiovisual	100.00	92.80
23. Consumer and health protection	72.00	100.00
25. Customs Union	84.9	51.00
27. PESC	57.00	100.00
28. Financial control	100.00	90.00
Partial Total (A)	82.60	78.60
B. Chapters under negotiation (open)		
3. Free movement of services	86.10	86.90
6. Competition and state aid	65.00	77.50
7. Agriculture	55.00	63.50
14. Energy	53.20	72.20
22. Environment protection	79.60	62.00
24. Justice and internal affairs	71.10	65.80
Partial Total (B)	68.33	71.32
Grand Total (A+B)	75.5	75.0

Note: Chapter 21 (Regional development policy) of the *acquis* consists of regulations implemented directly in the Romanian legislation at the accession time; as for Chapters 26 (Foreign affairs), 29 (Financial and budgetary provisions) and 30 (Institutions), the calculation either leads to irrelevant results or cannot be made. That is why they are not included in the table.

Source: Augustin Fuerea, Steliana Sandu et al., *op. cit.*, p. 17-19.

There are major differences between the two categories of chapters (provisionally closed-A and open-B), and also among the chapters of either category in the degree of compliance of the Romanian legislation (2004) and Community *acquis* (2002). In 2005 and 2006, Romania made significant progress in increasing the compliance degree, which made the European Commission and European Parliament agree to Romania's accession to the EU in January, 2007.

After the accession, the member countries are subject to monitoring the fulfilment of the obligations concerning the transposing of the Community *acquis* (Directives) into the national legislation. The Commission's Internal Market Scoreboards reveal that in 2004 there were delays in transposing the *acquis* even by the group of the earlier members of the EU. For example, within the EU-15 group, the transposing degree was 97.8%; France achieved 95.9%. In the same year, in the enlarged

group EU-25 (EU-15 + 10 new members), the indicator related to the transposing degree was 92.9% on the average, and in some new members the indicator was even lower: Slovakia 72.1%, Poland 83.2%, the Czech Republic 89.3%. In one year after the accession, the countries recovered rapidly the delays and raised the transposing degree: EU-25 to 98.1% and the new member countries (EU-10) to 98.3%: Slovakia to 98.6%, Poland to 98.3%, the Czech Republic to 96.4%.

During the accession, the member countries reached a new stage in checking how they would further fulfil their obligations on transposing and implementing the Community acquis. The Commission may use a wide range of more direct and effective monitoring tools. For example, besides the periodical reports and the evaluation and coordination of the economic policies, the European Commission may carry out, by its staff or agencies, inspections for checking the enforcement and observance of the Community provisions in some fields, including inspections at the head office of the companies suspected of anti-competition practices or at their managers' home to gather all relevant evidence. Also, the Commission may initiate sanctions for the non-fulfilment of the member countries' obligations.

7.5.2. The institutional capital and the evaluation of its state and effects

A. Methodological aspects

According to the above-mentioned, the institutions are a network of formal and informal rules to keep order in the economic and social life and create a mechanism for the enforcement and monitoring of the rules to efficiently use the available national resources. In the developed national communities, the institutions are accumulations of positive rules, experience or good practice acquired throughout the centuries. In this respect, the institutions may be considered a special capital – the institutional capital – available to every nation. The stock of institutional capital increases with the expansion, strengthening and improvement of the institutions and with the enforcement and monitoring of the formal and informal rules¹⁹. The stock of capital includes all the experience and

¹⁹ *The types of codified or formalized institution, as defined above, are part of the category of formal institutions and form the so-called institutional capital. The formal institutions are complemented by the informal institutions, identified as current routines, customs, traditions, culture, mutual trust, etc. rooted in the society over the time. Defined by Arrow as rules of social behaviour, including the ethic and moral codes, they may be interpreted as the response of the society to*

innovation in the field, which allows, on the one hand, overcoming the obstacles to the normal economic activity by implementing policies for market liberalisation and strengthening the responsibilities in order to observe the regulations and, on the other hand, for the stimulation of the economic growth by diminishing the transaction costs.

One should note that the institutions facilitate the transactions either within the market mechanism or outside it. The formal institutions are mainly responsible for the normal (free of obstacles) functioning of the market, while the informal institutions, that form the so-called social capital are the catalyst of the transactions outside the market²⁰.

As an expression of the cultural propensity of the groups of individuals or the expression of some customs, mentalities and attitudes inherited or received by education, the informal (unprovided by law) rules have a pronounced subjective character and are directly connected with the actions or reactions of the individuals and social groups. That is why they are called social capital or social infrastructure (Arrow, 1970; Coleman, 1988).

Although the question of the impact of the institutional capital (or its evolution) on the economic development was considered by most institutionalist economists, it was only later that they were very concerned in clarifications and quantitative determinations, stimulated especially by some major institutional inconsistencies during the transition to the market economy of the former socialist countries of Europe as well as by the speed at which the EU applicant countries managed to restructure and modernize the economic system in comparison with the other former socialist countries pertaining to the Commonwealth of Independent States (CIS). The economic collapse caused in the last decade of the 20th century by the institutional void, as well as the comparison among countries regarding the economic recovery, were clear reasons for economists to reconsider the role and importance of the institutional capital in assuring the dynamic

compensate for the market shortcomings. The informal institutions form the so-called social capital. The mutual trust rule, an important element of the informal institutions, in Arrow's opinion, is able to support the allocation of the resources outside the market. Without trust, it would have been very costly to order the alternatives: sanctions, guarantees and opportunities (Arrow, K.J., 1970, "The Organization of Economic Activity: Issues Pertinent to the Choice of Market versus Non-market Allocation", in Robert H. Haveman and Julius Margolis, eds., Public Expenditure and Policy Analysis, Chicago, Markham).

²⁰ Syed M. Ahsan and Melania Nica, Growth, Integration and Institutions in Eastern Europe and Former Soviet Union (EEFSU), internet, April 2005.

balance of the national economies²¹ and to study very carefully this area of interest.

Some studies and multifactorial models of economic growth and convergence refer to the synthetic indicator of the institutional development meant to express the improvement of the market environment (business environment) and be used as a factor of convergence. For example, Hall and Jones point out that the differences among countries in the accumulation of physical and human capital and productivity are determined by the differences among institutions and among the governmental policies, which they call social infrastructure.

Being confronted with major methodological obstacles²² in trying to compute an expressive synthetic indicator of the institutional capital, many authors compute and use some partial indicators in the econometric analyses, besides other indicators. They resort to this solution not necessarily to find a causal relation, but mostly to reveal the direct effect on the outcome of the economic growth or convergence²³. For example, some economists (Barro and Sala-i-Martin, Easterly and Levine, Mauro, Melo, Wolf, Kaufman, etc.) consider as partial institutional variables or negative derivatives of the institutional void or weak institutional system the following: political instability, ethnical fragmentation, corruption, weak government, business risk, political freedom, market liberalisation. Given the difficulty to get information on an international basis and to assure the data comparability, most indicators of the institutional capital are calculated by public and private organisations with international vocation. Most authors who carry out empiric research on the economic convergence and growth use statistical data from the publications of such organisations.

²¹ M. Raiser, 2001, "Informal Institutions' Social Capital and Economic Transition. Reflections on a Neglected Dimension", in Cornia and Popov (eds.), 2001, *Transition and Institutions*, Oxford University Press; N.F. Compos and F. Coricelli, 2002, "Growth in Transition: What We Know, What We Don't and What We Should", World Bank's Global Development Network, *Explaining Growth Project*, www.gdnet.org; idem, *Journal of Economic Literature*, XL, 793-836; Syed M. Ahsan and Melania Nica, op.cit.

²² Among such obstacles, one may find the following: the intangible (non-substantial) character of all elements of the institutional capital; the highly heterogeneous character of the components; the uncertain way of consideration, definition and utilisation of this notion, as it still depends on the stages of the evolution of the national economies, on the purpose of the analyses, etc.

²³ Daniel Kaufman, Aart Kraay and Pabl -Zoido-Lobaton, Governance Matters, World Bank Development Research Group, "Macroeconomics and Growth", Policy Research Working Paper, 2196, Oct. 1999.

So far, the analysis of the relation between the two variables – institutional capital and economic growth – has covered, for the most part, the following three groups of issues: 1) the evaluation of the residual productivity of the factors by means of the production function (Hall, Jones, 1996, 1999); 2) the contribution of the determinants to the convergent economic growth (Mankiw, Romer, Weil, 2002); 3) the causal relation between the improvement of the quality (efficiency) of the institutions and economic growth, and, conversely, between the economic growth and the improvement of the quality (efficiency) of the institutional capital (Kaufmann *et al.*; 1999, 2002; Havrylyshyn, 2002).

The following developments are included in the third group of issues and based on the regression of cross-section data on aggregated indicators of the output and input relative to a large number of countries. In our attempt, we resort to the argument provided by Hall, Jones, Kaufmann *et al.*, according to which the determinant of the difference among countries in the economic output is the institutional capital. Therefore, we consider as a dependent variable the logarithm of the per capita gross national income expressed by the purchasing power parity (PPP) ($\log y$) and as an explanatory independent variable, the institutional capital (K_{inst}):

$$\log y = \alpha + \beta K_{inst} + \varepsilon \quad (1)$$

It is a linear function of the institutions, where ε stands for the measurement errors. Of course, in the given relation, the institutional capital is far from explaining the difference in the per capita income among the countries. Since the other factors are not included in the equation, the difference corresponding to them and the measurement errors are taken over (summed up) by the element ε of the above equation.

Since there is not yet a synthetic (all-inclusive) indicator to characterize the institutional capital, we consider, besides the indicator concerning the *public institutions* (K_{instp}), two other categories of institutional indicators, namely: *macroeconomic environment* (K_{instm}) and *degree of freedom (decentralisation) of the economy* (K_{instl}).

Institutions are not elements coming from outside or gratuitous. They are significantly endogenous, that is, they have a history closely connected with the economic, social and cultural evolution of the countries. They embed major investments in institutional innovation, transfer of knowledge, investments in the development of the managerial capability, in the formulation, consolidation and observance of the rules at all levels. This process may be revealed by a reversed correlation, if compared to the previous one, that contains, as a dependent variable, the institutional capital (K_{inst}), and, as an explanatory variable, the economic development level (y), to which we add other variables, represented by specific, observable

factors, expressed by the vector x , that influence the changes in and the evolution of the institutional system:

$$K_{inst} = a + \theta \log y + \gamma x + v \quad (2)$$

where: v takes over the measurement errors as well as the size of the effects of the non-observable factors.

Each of the three categories of institutional capital, denoted above by $K_{inst p}$, $K_{inst m}$, $K_{inst l}$, implies several specific explanatory factors, that form the vector x , mentioned above. We considered some of them, by their importance and the availability of data based on empiric (direct) observation.

Aggregated (composite) indicators	Explanatory sub-indicators (components)
$K_{inst t}$	x
$K_{inst p}$ <i>Public institutions</i>	
	x_{p1} – contracts and laws
	x_{p2} – corruption
$K_{inst m}$ <i>Macroeconomic environment</i>	
	x_{m1} – macroeconomic stability
	x_{m2} – governmental waste
	x_{m3} – country rating for credits
$K_{inst l}$ <i>Freedom (decentralisation) degree</i>	
	x_{l1} – trade
	x_{l2} – governmental intervention
	x_{l3} – wages and prices

Since the institutions cannot be numerically expressed in a rigorous way, the aggregated amounts cause a relatively high level of errors (Kaufmann *et al.*, 1999).

Let us denote by K_{inst}^* the aggregated indicator of the observed institutional capital. It consists of all elements denoted by K_{inst} , to which one should add their measurement errors, denoted by u :

$$K_{inst}^* = K_{inst} + u \quad (3)$$

By replacing equation (3) in equation (1), we get the relation:

$$\log y = \alpha + \beta K_{inst}^* + (\varepsilon - \beta u) \quad (4)$$

which reflects the entire range of measurement errors and effects of the non-observed factors.

Although there are available statistical data on a great number of countries, their utilisation and the equation solutions, as well as the analysis

of the results obtained by the multiple regression method will be dealt with in another stage of research.

B. An empiric analysis

In this stage, we limit ourselves to a few brief explanations concerning the data source and indicator contents, their correlation with the synthetic indicator of the per capita gross national income and the graphic and numerical presentation of the results of the simple regression calculation using equation (1).

The institutional state, the evolution and effects of the state, are expressed by specific indicators, formulated and computed by various organisations with international vocation²⁴. Taking into account the coherence and expressiveness of the factors, as well as their worldwide scientific authority, we selected as a source the database of the World Economic Forum. We chose, as indicators relevant to our study, the public institutions and the macroeconomic environment along with their constituent sub-indicators: contracts, laws, and corruption as well as macroeconomic stability, governmental waste and country rating for loans.

Sachs and McArthur think that the public institutions and macroeconomic environment are the two pillars of the economic growth and competitiveness, besides the technological progress, as the third pillar.

Why are the two aggregated indicators – public institutions and macroeconomic environment – considered the pillars of the economic growth and competitiveness?

On the public institutions. Even if in a market economy private firms prevail, they either cannot function or function at very high transaction costs in a disorganized or poorly regulated market or where the formal rules (legal rules) are not observed. If the property rights are not rigorously defined, guaranteed and protected by a fair and strong legal and judicial system, the contracts too are not observed, the guilty ones are not held responsible because of either the legislative errors or the weak, irresponsible and corrupt system, and the economic life is almost impossible and very costly. In the countries with a weak and unfunctional judicial system or uncontrolled corruption, the businesses are too costly or even prohibitive due to the transaction costs. These elements are used by experts to assess both the

²⁴ *The main comprehensive sources of data, computed and presented in a systematic and highly reliable way, on the state and evolution of the countries' institutional systems are provided by the following international organisations: Heritage Foundation, Freedom House, World Economic.*

compound index concerning the public institutions and the sub-indices concerning the contracts and laws, as well as the corruption.

Using increasing values, beginning with the countries having the weakest institutions, where the law, contracts and property rights are not observed, and ending with the countries having the strongest institutions, we find out: the lowest values were recorded by Haiti (2.28) and Bangladesh (2.48), ranked the 102nd and 100th, while the highest values were found in Denmark (6.56) and Finland (6.52), ranked the first and second. As regards the quality of the public institutions, in 2003, Romania held an unfavourable position (86) among the 102 countries, after Uganda and Philippines²⁵.

On the macroeconomic environment. Also, the institutional framework represented by the macroeconomic environment influences the economic and social life either positively, if the economic and financial rules are observed and adjustments are made to ensure the system order and stability, or negatively, if the related rules and mechanisms of the economic and financial balance are lacking or not observed. The major governmental budget deficit, the failure to control the monetary system, the waste of public money, the consumption loan increase cause inflation and unemployment with negative effects on the economic actors. They affect the business plans and decisions of the companies and further the very foundation of the economic growth. Moreover, the saving incentives are ignored and the living standard is undermined.

In this case too, the assessment of the indicators concerning the macroeconomic environment is made by country in ascending order: from the lowest values, recorded by the poor countries with the weakest institutions (Zambia ranked the last, *i.e.* the 102nd, with the following indices: 1.98 for the macroeconomic environment, 1.78 for the governmental waste, and 1.00 for the country rating) to the highest values, recorded by the richest countries (Singapore: 5.69 for the macroeconomic environment and 6.12 for the governmental waste; Switzerland: 7 for the country rating. Out of 102 countries, Romania was ranked, in 2003, the 81st for the macroeconomic environment (2.93), the 96th for the governmental waste (1.95), and the 66th for the country rating (2.64)²⁶.

In the last three years, marked by the lead-up to the accession to the EU, Romania made significant progress in improving the analysed institutional indicators, by transposing the Community acquis. A problem to be solved very quickly is the enforcement and observance of the new rules.

²⁵ World Economic Forum Database.

²⁶ World Economic Forum Database.

Having the statistics of the indicators concerning the gross national income per capita (USD-PPP) and the qualitative state of the institutional capital (its components in all countries on which data are available), we are able to render graphically the connection between the economic results (per capita GDP) and the quality of the institutions and to determine the impact of the institutional capital state on the economic results, by the simple correlation method, in accordance with the above relation (1).

The computation was based on the cross-section data, and followed two alternative ways:

- by all countries on which data are available;
- by the EU countries (27 + Turkey, as an applicant country).
- Also, in the absence of an aggregated indicator concerning the institutional capital, we used as explanatory factors, components and subcomponents of the indicator, namely:
 - Public institutions and sub-indices concerning:
 - the contracts and laws;
 - corruption.
 - Macroeconomic environment and sub-indices concerning:
 - macroeconomic stability;
 - governmental waste;
 - country rating for loans.

Processing the data according to the above scheme we obtain the following significant results presented numerically, Table 2.

Table 2

Result of the simple regression calculation: dependent variable – per capita gross national income ($\log y$) and explanatory variables – institutional capital elements

Computed parameters	Public institutions	Of which:		Macroeconomic environment	Of which:		
		Contracts and laws	Corruption		Macroeconomic stability	Governmental waste	Country rating for loans
A. Country total							
β	0,81	0,70	0,79	1,02	0,99	0,73	0,54
σ	0,71	0,80	0,64	0,68	0,98	0,88	0,51
Constant	5,32	6,08	5,10	5,00	4,82	6,51	6,87
T statistical for β	11,63	9,33	13,70	13,00	5,80	8,05	18,58
R^2	0,61	0,50	0,68	0,65	0,27	0,42	0,80
R^2 adjusted	0,60	0,49	0,67	0,65	0,26	0,41	0,79
F statistical	135,36	87,07	187,91	168,90	33,61	64,8	345,29

B. EU member countries + Turkey							
β	0,47	0,39	0,46	0,64	0,78	0,36	0,33
σ	0,27	0,29	0,32	0,18	0,39	0,32	0,11
Constant	7,47	8,07	7,30	7,08	6,54	8,56	8,11
T statistical for β	7,20	6,49	5,72	11,99	3,73	5,50	19,89
R^2	0,70	0,66	0,60	0,87	0,39	0,58	0,95
R^2 adjusted	0,69	0,64	0,58	0,86	0,36	0,56	0,94
F statistical	51,83	42,08	32,73	143,75	13,90	30,29	395,55

Source: Based on data from Annexes 1-3.

Table 2 shows the relatively high level of the parameters R^2 and β , that is the importance of the impact of the increasing quality of the institutions (by increasing the value of the indices or sub-indices) on the economic outcome. In other words, the increasing quality of the institutional capital (expressed by the indices and sub-indices for the evaluation of the components of the institutional capital of the countries) significantly influences the economic outcome.

Moreover, if we compare the parameter of the EU countries with the parameters computed for all countries, we may find, for example, that the σ -parameter (standard deviation) is considerably lower in the EU countries. It means that, in the latter, the qualitative differences among the institutions of the countries are much smaller, that is, a higher convergence level. As the integration advances, the institutional convergence of the EU countries increases.

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The integration into the EU requires strong measures for transposing the Community acquis into the legislation of the countries and for making the national institutions compatible with the EU ones.

Although Romania (like the other member countries) achieved the formal convergence of the market institutions, in fact, the process is not completed, since, on the one hand, not all the rules and tools, set formally, are effectively applied, and, on the other hand, the EU produces new regulations and tools to be operatively transposed into the national legislation and effectively applied. Only from this perspective one should consider and analyse the convergence of the national institutional system and the EU one and only to the extent the national institutional system supports the nominal and real convergence.

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8. REAL CONVERGENCE AND INTEGRATION**

Economists wonder if real economy convergence can actually be achieved only in a competitive market according to the neoclassical models. In this respect, extensive studies and models have been completed. Considering the way the determinants and trends of real convergence are approached, the studies and models may be divided into three categories:

- The first one views real convergence as a natural process, based exclusively on the market forces, in accordance with which the convergence process is surer and faster as the market is larger, more functional, less distorted.
- The second one denies that, in the present competitive market, there is an actual real convergence between the poor and the rich countries, but accepts the existence of the tendency of polarisation or deepening of the divergences and inequalities between the centre and the periphery.
- The third one considers that real convergence is necessary and possible in a competitive market, provided that economic policies are implemented to compensate for the negative effects of the inequalities or divergences, until the economic systems reach maturity or the so-called critical mass to support the self-sufficiency of the real convergence process.

Further, we make some critical comments and present some arguments in support of the alternatives that are closer to the real needs and opportunities the Romanian economy to achieve convergence with the EU real economy.

8.1. Convergence through the functional competitive market forces

The first way to perceive real convergence exclusively by the market forces is the neoclassical growth theory. Assuming that the economic outcome (GDP per capita) is ensured by the contribution of several production factors (capital, labour, natural resources, technological progress), the neoclassical model advances the fundamental hypothesis

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that growth depends on the features of the rate of return on capital, which generally tends to decrease in relation to the economic growth. For a certain increase in capital, the outcome increase is less than proportional. More exactly, at the same saving (investment) rate, the marginal rate of return on capital decreases, so that poor countries, with a low amount of capital per capita, attain higher rates of return to capital than those of rich countries, with a considerably higher amount of capital per capita.

According to the neoclassical model, the higher rate of return on capital achieved by the poor countries/regions as against the rich countries/regions (if the other conditions are comparable) ensure the long-term convergent economic growth. This postulate is explained by many authors (based on the Solow's model) taking into account the assumption of equal saving rates (accumulation), population/employed population growth, capital depreciation, technological progress, etc. for all categories of countries. This is the only way that all countries, on different initial development levels, may reach the convergence or equilibrium state by economic growth rates higher in the poor countries than in the rich ones.

According to the neoclassical school, many economists consider that the competition intensification by the establishment and enlargement of the European internal market and integration would have a positive impact and offer opportunities to the countries and regions for diminishing the development and per capita income disparities in order to achieve real convergence. Only action on a larger scale of the competitive internal market forces in the EU, free of any interventionist (protectionist) policy, could guarantee the real convergence of the EU countries and regions.

The free movement of the production factors among the European countries and regions, especially through capital market integration and FDI, is an important way to achieve real convergence.

The less developed countries and regions are characterized by capital scarcity and low saving capability, due to the low income per capita. This means that those territorial entities offer opportunities for development and attract available capital from the countries rich in capital, whose companies are eager to penetrate a large safe and profitable market. After the accession, the capital inflows as investments increased. Among them, the foreign direct investments became the most important means of attracting various intangible resources, such as technology, know-how, expertise, managerial experience, etc. Foreign direct investments have clearer advantages, if compared with financial investments. But their presence in a country or region is dependent on the following requirements: a) sufficient infrastructure of high quality; b) low transaction costs (similar to those in agglomerated areas); c) abundant and cheap local resources (their

low cost may compensate for the additional transaction cost, due to the scarce infrastructure); d) possibility to make horizontal investments based on scale economies, showing a significant dispersion of the production units among countries and regions, as close to the potential clients as possible.

To make the markets of the new EU countries perfectly compatible and competitive, the European Commission implements a systematic policy for the elimination of the non-competitive elements from the market by banning state aid, protectionist actions and other elements that may cause distortions of the single market and national markets.

Moreover, it is quite obvious that many economic reform measures taken by the CEE countries as well as the implementation of the Community acquis and the institutional improvement are aimed at creating a functional competitive market within every national economy and the Community market.

Some economists and international financial institutions still believe that an enlarged and functional market as well as the profound economic integration require the existence of strong mechanisms that automatically lead to real convergence, without any policy in support of such convergence. The implementation of such policies means, in their opinion, many other distortions of the market.

It is quite obvious that such opinions are expressed by the supporters of the neoclassical model, as they think that only the market forces free of any intervention may set in motion efficiently the mechanisms that enable the poor countries to recover the delays by higher growth rates than those of developed countries.

Although the reasoning based on the hypothesis of decreasing rate of return and the hypothesis of perfect competition is logically correct, facts contradict such opinions. On the one hand, poor countries lack the necessary economic, scientific, technological and financial power to cope with competition, which explains, to some extent, the reverse trend, that is widening the gap (divergence) between the poor and the rich countries, and not diminishing it. On the other hand, one should not ignore the overall natural trend of clustering or polarisation of the economic activities at different (national, regional or sub-regional) levels, which might become a major obstacle to convergence.

8.2. Divergence and polarisation; lasting effects of the competitive market forces

The empirical research for testing the validity of the neoclassical model has demonstrated that, in most cases, neither the hypothesis concerning the decreasing rate of return to capital, nor the real convergence between the poor and the rich countries (regions) is confirmed. It is impossible to explain the international discrepancy in the present development level only by making reference to the initial difference in factor endowment (Thirlwall, 2001). What actually counts is stimulating the development of the new factors (human capital and knowledge stock) and their increasing contribution to economic growth, detecting possible obstacles to growth in the poor countries and, finally, testing whether the mechanisms causing the inequality between the developed countries and the poor ones may last or not.

The theoretical contribution made by Perroux, Myrdal, Prebisch, etc. has changed the way of explaining real convergence and decisively influenced the direction of the economic policy for the European construction, beginning with the drafting of the Rome Treaty¹. Although not always analytically rigorous, the new economic notions included in the scientific circuit, such as attraction poles, clusters, centre-periphery, flows of complementary factors, positive spillovers, etc., have broadened the horizon of the debates and the understanding of the processes taking place in the real economy, and the research area concerning the economic policy.

The above notions and the concept of *circular cumulative cause* of the economic processes help us explain the increasing international difference in the development level as against the similar initial conditions². The movement of capital, the human capital and labour migration, the goods and services exchange perpetuate and even worsen international and regional development inequalities. By means of the free trade mechanisms (*i.e.*, free of tariff and non-tariff barriers), the less developed countries, which lack the human capital and the scientific and technological capability, have to specialize in the production of mostly primary goods characterized by an inelastic or almost inelastic demand in relation to price and income.

¹ Jacques Pelkmans, *Integrare europeană. Metode și analiza economică* (Romanian translation of European. Integration. Methods and Economic Analysis), European Institute of Romania, Bucharest, 2003.

² M.G. Myrdal, *Economic Theory and Underdeveloped Regions*, Duckworth, London, 1956.

What causes the increasing inequality between countries is the tendency of interregional and international polarisation (agglomeration), especially in the context of the economic and monetary integration. As there are no barriers to the movement of goods, services and production factors, some countries and regions form strong poles of attraction and cause imbalances between countries showing important differences in the income per capita. The developed countries and regions endowed with factors become poles of attraction that absorb increasing amounts of high quality labour and capital from the less developed countries.

Even if during the accession process the countries make major efforts to support the economic and institutional reforms and attempts to achieve a stable development equilibrium, in real life there is a natural trend with an universal character towards the polarisation of the processes, which in turn causes the broadening of the gap between the development levels of the countries and regions. Myrdal claims that the economic and social forces alike tend towards equilibrium and that the economic theory hypotheses according to which disequilibrium situations tend towards equilibrium are false (Myrdal, 1957; Thirlwall, 2001). If it were not true, then how could one explain the international differences in the standard of living? Unable to answer this question, Myrdal replaces the stable equilibrium hypothesis with what he calls the circular cumulative causation hypothesis or, briefly speaking, the cumulative causation hypothesis. This hypothesis helps us explain why the international and interregional differences in the development level may persist and increase in time.

Myrdal's hypothesis is based on a multiplier-accelerator mechanism, which causes the income to rise at higher rates in the so-called favoured - more developed - countries and regions, which are endowed with modern infrastructure, gain scientific and technological ascendancy and enjoy physical and human capital inflows, as well as scientific and technological inflows; consequently, they become more attractive for their capital and labour than the less developed areas. The free trade in goods and services and the full freedom of movement of the production factors among countries and regions showing great differences in the development level causes increasing polarisation: on the one hand, countries and regions that become richer, enjoy a significant economic growth and show attractiveness to the high-skilled production factors and, on the other hand, countries and regions characterized by stagnation and economic decline, obsolete and non-attractive infrastructure, decreasing income and taxation levels, that is, limited demand for goods and services.

Under these circumstances, there cannot be any economic convergence. The approaches and analyses initiated by Myrdal, Prebisch,

Seers, etc. have led to an influent trend, based on the concept of divergence, which points out the process of polarisation and the divergence between the centre and the periphery.

This trend of thought brings influence to bear upon the following levels: 1) the practical one, reflected in the European construction projects by the adoption of some tools of the European economic policy; 2) the analytical one, strongly reflected in two directions: a) re-thinking the construction and interpretation of economic growth, by returning to the economic and social realities (it concerns the development of endogenous models and the econometric testing); b) new approaches to the geographic (regional) economy, taking into account real processes, such as: regional disparities, development agglomerations or poles, role of infrastructure, transaction costs.

8.3. Cohesion – an important tool in support of the real convergence within the EU

The chance that the poor national economies advance towards convergence within an enlarged and highly competitive single market is illusory. There are some mechanisms that rather stimulate divergence. But there are some other ones that may produce positive effects on the long-term convergence processes, although their success is rather uncertain in the absence of economic policies to support them and to prevent the negative effects. Among the most important mechanisms mentioned by Pelkmans and pointed out by us, one may find the following: 1) the intraindustrial specialisation of the less developed countries on parts of products and operations, in accordance with the comparative advantage principle, for the capitalisation of the available national (local) resources at small costs; 2) the integration of the less developed countries into the EU makes them more attractive to foreign capital, and, first, to foreign direct investments, initially within the existing economic clusters and then extended gradually to the periphery territories, along with the infrastructure extension; 3) the strengthening of the competition to which the products, services, factors and companies from the less developed countries are exposed as the countries accede to the EU, which eliminates the non-competitive local activities and causes dramatic social problems, while such activities are taken over by viable competitive companies; 4) the integration into a large single market in accordance with the Community acquis eliminates the distortions and the obstacles to development, but does not always stimulate the development of the poor countries and regions.

The impact of the integration on economic growth, in the absence of cohesion policies, does not ensure that the poor countries will reach higher GDP per capita growth rates than the more developed countries, to enable convergence. Unlocking convergence mechanisms by cohesion policies has become one of the EU's major objectives.

When the Rome Treaty stipulated that "the harmonious development of the economic activities" and "the continuous and balanced expansion" are the first two economic objectives, both the structural divergence and the difference in income per capita between the backward and the advanced members of the Common Market were taken into consideration. To achieve the real convergence in both cases, the Treaty was based implicitly and exclusively on the market mechanisms.

Considering the scarcity of market mechanisms for the recovery of the poor countries and regions, the EU has gradually gained tasks concerning cohesion and solidarity in order to facilitate real convergence by improving the economic performance. The adoption of the cohesion principle was mostly determined by the accession of the countries with a GDP per capita much below the EU average (Greece, Portugal and the CEE countries). The cohesion principle, applied by means of specific tools, is largely used to diminish the disparities in the GDP per capita between countries and regions by improving their performance.

The most important step taken to adopt the principles of cohesion and harmonious development was the explicit inclusion of three economic objectives concerning convergence in the Maastricht Treaty: (1) harmonious and sustainable development of the economic activities; (2) high level of convergence of the economic performance; (3) economic and social cohesion and solidarity of the member states. The objectives (concerning the real convergence of the economic performance through cohesion) were included in the Amsterdam Treaty, with some formal modifications. To apply the above-mentioned principle, two important categories of EU funds were created: structural funds and cohesion funds.

The structural funds are mostly directed to the EU regions with a GDP per capita below 75% of the EU average. The funds are provided: to support the development of the infrastructure in the backward regions; to develop human resources, mainly by training; to enable the private sector development.

The cohesion fund provides support for the EU member countries (with a GDP per capita under 90% of the EU-15 average) to meet the requirements for the European Single Market and the transition to the EMU. Until 2006, cohesion funds were granted to Greece, Ireland, Portugal and Spain. Afterwards, between 2004 and 2006 the countries which joined the

EU in 2004 received the total amount of 8.495 billion euros, out of which Poland received almost half³. In 2007, Romania and Bulgaria joined the countries receiving cohesion funds. These funds are used to finance directly individual projects on transport infrastructure and environment, provided that they are clearly identified⁴.

The amount provided for the Cohesion Fund increased at a fast pace (see Table 1).

Table 1

Evolution of the Cohesion Fund, 1975-2013

Year	Mil. ECU/euro	Share in EU budget, %
1975	257 (ECU)	4.8
1981	1 540 (ECU)	7.3
1987	3 311 (ECU)	9.1
1992	18 557 (ECU)	25.0
1998	33 461 (ECU)	37.0
2002 (incl. pre-accession assistance)	34 615 (euros)	35.0
2006 UE-25 ⁾	38 791 (euros)	32.0
2013 UE-27 ⁾	50 960 (euros)	32.0

⁾ Excluding the European Agricultural Guidance and Guarantee Fund and Financial Instrument for Fisheries Guidance, but including the Solidarity Fund.

Source: Helen Wallace, William Wallace and Mark A. Pollack, *Elaborarea politicilor în Uniunea Europeană (translation into Romanian of the Policy-making of EU)*, Ediția a cincea, Institutul European din România, 2005, p. 205.

³ In 2000-2006, until the accession to the EU, the applicant countries benefited by special lead-up programmes, such as: PHARE – assistance for the economic restructuring (lead-up to the participation in the Structural Funds); ISPA – a tool for the structural pre-accession policy (lead-up to the Cohesion Fund); SAPARD – the special pre-accession programme for agriculture and rural development (lead-up to the European Agricultural Orientation and Guarantee Fund). The ten countries which acceded to the EU in 2004 benefited by the Structural Fund and Cohesion Fund in 2004, and Romania and Bulgaria, which acceded to the EU in 2007, joined the assistance programmes in 2007.

⁴ The decision on the financing of each project is taken by the European Commission in agreement with the beneficiary member state. The project management is ensured by the national authority, and the supervision by a monitoring committee.

The most important transfers to the cohesion countries (in 1989-1999) were the following: Greece received an amount equivalent to 3.5% of the GDP, Portugal 3.3%, Ireland 2.4% and Spain 1.5%⁵.

In 2007-2013, the resources allocated to the cohesion policy (received by the countries with a GDP per capita below 90% of the EU-27 average) will amount to 336.1 billion euros, that is, one-third of the EU total budget and about 4% of the EU GDP. To these resources one should add the structural funds (competitiveness for growth and employment) of 132.77 billion euros, as well as the funds for the preservation and management of the natural resources of 404.77 billion euros, of which: 301.06 billion euros for agriculture (market expenditure and direct payment).

Since the main objective is the promotion of the development projects in the backward countries and regions, the structural and cohesion funds are essential operational tools that spread the new poles of attraction in order to extend viable businesses to new areas of the recipient cohesion countries by the development of both the physical (tangible) infrastructure and the intangible one, pertaining to the information, training (qualification), knowledge and innovation fields.

8.4. Evidence concerning the need for cohesion policies and some assessment of the real convergence

Although the development level of the country's real economy is not a condition for the accession to the EU or a negotiation issue for the accession, the question of catching-up or bridging the gaps between the EU member countries and regions is an important and urgent topic for the economic, scientific and technological strategy of the EU. The issue is important because there are major disparities in the economic development levels of the EU countries and regions. The disparities widened after the accession of the two waves of CEE countries. For example, while in 2000 the ratio of the lowest GDP per capita of a EU-15 member country to the average GDP per capita of the EU-15 was 66%, in 2005, after the accession of the ten countries, the ratio of the lowest GDP per capita to the average GDP per capita of the EU-25 reached 46.6%. After the accession of Romania and Bulgaria, the lowest GDP per capita as against the EU-25 average reached 32%.

⁵ *European Commission, Second Report on Economic and Social Cohesion, 2001.*

The persistence of the disparities and underdevelopment of some EU countries and regions would mean the inconsistency with the very meaning of the European Communities and with the EU strategy, according to which the EU is supposed to become the most important economic and technological power in the world in a predictable period of time, to become the global leader in the economic, scientific, technological and living standard areas. Of course, such a strategy prevents the persistence of disparities and the existence of underdeveloped and poor regions and, also, requires the implementation of policies fully aimed at capitalising the resources of all component countries and regions to achieve their economic and social development. That is why, the EU adopted a firm policy on economic and social cohesion, in order to achieve the real economic convergence of all member countries and regions. From this perspective, it is worth mentioning that all twelve countries of the two accession waves have become cohesion countries, since their GDP per capita has been far below the threshold of 90% of the EU average. Therefore, all these countries satisfy the basic criterion for becoming beneficiaries of the Cohesion Fund for the infrastructure and environment projects. Also, most regions of these countries are eligible for financing from the Structural Funds, since their GDP per capita is below the threshold of 75% of the EU-25 average.

The new member countries have received economic support from the EU since the pre-accession period through special lead-up programmes (PHARE, ISPA, SAPARD, etc.). In the post-accession period, the financial support offered through the new programmes is more consistent as regards the objectives and implementation mechanisms, as well as the size of the funds allocated from the EU multiannual budget (2007-2013). The question "To what extent did these policies influence the real economy convergence?" is difficult to answer by analytical impact assessments, since these policies have not yet produced effects, due to the relatively short time of application.

The clarifying elements in this matter are the overall results of the influence of all factors of convergent growth in each country, determined by means of different factors (usually, computed on long term), which show either the diminution in the inequalities between the set of analysed economies (the evolution of the index concerning the ratio between the level indicators of the economies, dispersion, Gini index, Theil index, etc.), or the cross-section convergence (β -convergence), or, finally, the convergence of the time series, dynamic distribution, etc.⁶. We confine

⁶ Castro, José Villaverde, "Indicators of Real Economic Convergence. A Primer",

ourselves in this study to the results of the computation of two of the above indicators, which are equally simple and suggestive

(i) *The index concerning the ratio between the level indicators (GDP per capita)*. Relating the level of the GDP per capita of the countries to the average level of the EU for a certain period, one may find general trend of approximation of the development levels of these countries as against the EU average level in the analysed period. Table 2 contains data on the cohesion countries pertaining to the EU-15 Group (Greece, Spain, Portugal) and the countries that joined the EU in 2004 and 2007.

We have related the GDP per capita of each country to the average GDP per capita, computed for 25 countries, although the official computation for the previous financial years was based on the GDP per capita of the cohesion countries related to the average GDP per capita of the EU-15.

The evolution described by the data presented in Table 2 reveals a general trend of approximation to the average index (denoted by 100%) in all cohesion countries. Of course, the evolution of the indices computed for each country reveals the convergence of the real national economies during the pre-accession and post-accession to the EU.

Table 2

The evolution of the index concerning the ratio of the GDP per capita of the cohesion countries and to the EU-25 average, based on PPP* (1998-2005), percentage

	1998	1999	2000	2001	2002	2003	2004	2005
Greece	70.4	70.7	72.6	73.5	77.2	81.1	81.9	83.0
Spain	88.8	92.5	92.5	93.2	95.3	97.7	97.3	98.3
Portugal	78.2	80.3	80.6	79.8	79.53	72.8	72.2	70.9
Czech R.	65.3	64.9	63.7	64.9	66.5	67.7	70.04	73.07
Estonia	39.1	38.8	40.7	42.3	45.1	48.4	51.1	55.5
Cyprus	79.3	80.3	81.1	83.1	82.3	80.2	82.3	82.5
Latvia	32.9	34.0	35.3	37.0	38.6	41.0	42.7	46.6
Lithuania	38.5	37.2	38.3	40.3	41.9	45.1	47.6	50.9
Hungary	50.8	51.6	52.7	55.7	58.1	59.4	59.9	61.2
Malta	76.5	77.1	77.6	74.0	74.4	72.8	69.1	69.2
Poland	44.7	45.7	46.7	46.2	46.5	47.0	48.9	49.5
Slovakia	46.9	46.8	47.2	48.6	51.1	52	52.9	55.1
Slovenia	71.5	73.9	72.6	74.0	74.4	76	78.9	80.7

Bulgaria	26.2	26.3	26.7	28.3	28.6	29.6	30.4	32.0
Romania	26.5	25.6	25.1	26.5	28.5	28.5	32.1	32.9

* Purchasing Power Parity.

Source: Based on Eurostat data.

(ii) *The variation coefficient of the GDP per capita or the σ -convergence.* Frequently used in the economic analysis, the indicator expresses the convergence level as a result of the measurement of the dispersion of the per capita GDP in a group of countries, according to the following formula:

$$\sigma_t = \sqrt{\frac{1}{n} \sum_{i=1}^n (X_{it} - \bar{X}_t)^2} / \bar{X}_t$$

The indicator computation is based on cross-section statistical series (countries), when comparisons in a time sequence are made, and time series (discrete time interval, t and $t + T$), in order to characterize the evolution (trend) of convergence. When the dispersion decreases in a certain period of time (when the value of the variation coefficient diminishes), convergence $\sigma_{t+T} < \sigma_t$ takes place.

To characterize the level and evolution of the real convergence process of the EU national economies, we computed the variation coefficient separately, for two groups of countries, EU-25 and EU-10 (the countries which joined the EU in 2004) and for the two alternatives of the GDP per capita expressed in euros: the purchasing power parity (euros-PPP) and market exchange rate (euros). The series cover the period between 1995-2006.

The results of the computation concerning the evolution of the variation coefficient (σ -convergence) are presented in a numerical form in Table 3, in accordance with above alternatives.

Table 3
The numerical evolution of the σ -convergence (the per capita GDP variation coefficient), EU-25 and EU-10

Years	Calculation based on PPP		Calculation based on exchange rate	
	EU 25	EU 10	EU 25	EU 10
1995	0.44	....	0.71	....
1996	0.43	....	0.68	....
1997	0.42	....	0.65	....
1998	0.41	0.35	0.64	0.81
1999	0.44	0.36	0.66	0.86

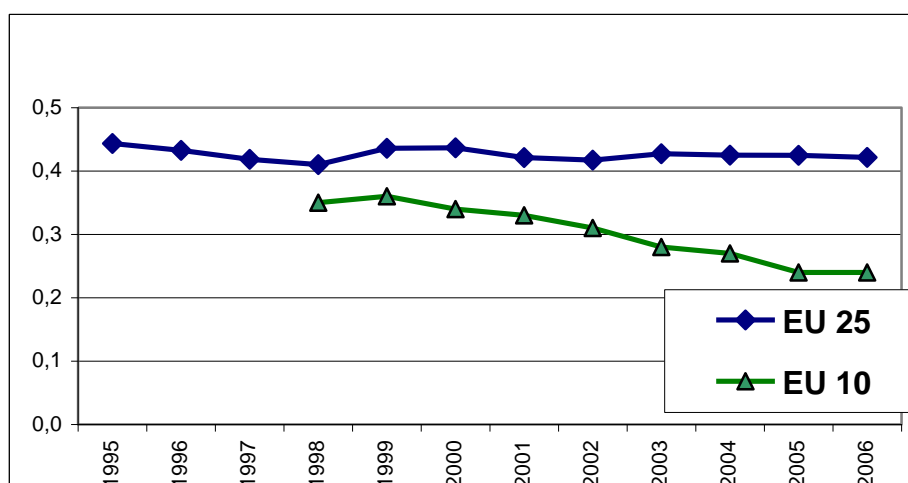
2000	0.44	0.34	0.65	0.77
2001	0.42	0.33	0.63	0.67
2002	0.42	0.31	0.63	0.66
2003	0.43	0.28	0.63	0.69
2004	0.43	0.27	0.63	0.64
2005	0.42	0.24	0.62	0.55
2006*	0.42	0.24	0.62	0.51

* Estimated data.

Source: Based on Eurostat data.

The evolution of the variation coefficients (σ -convergence) computed for the two groups of countries – EU-25 and EU-10 – and on the basis of the PPP is shown in Figure 3.

Figure 3
 σ -convergence (variation coefficient) computed on the basis of the per capita GDP (PPP, euro)



Source: Based on Eurostat data.

From the analysis of the level and tendency of the variation coefficients computed for the above alternatives, we draw the following conclusions:

- In the case of the ten countries that joined the EU in 2004, the lower level of the variation coefficient means a higher convergence level in relation to the whole of the EU member countries.
- The downward trend of the variation coefficient for both alternatives (PPP and exchange rate), more discernible with the 10 countries as

against all countries, shows a higher rate of real convergence in this group of countries.

- c) The variation coefficients based on the market exchange rate in the group of ten countries are higher – over two times – than those based on the PPP, which means that the difference among the countries of this group in the standard of living is relatively low and, consequently, the convergence level of these countries expressed in real terms is much higher than that expressed in nominal terms.

Conclusions

Due to the wide gap between Romania and the developed countries and the complexity of the problem as such, the issue of real convergence should be paid special attention. Moreover, it is worth mentioning that, within the theoretical and empirical research in the field, real convergence is the crucial point of the economic growth and enables the researcher to set the objectives, resources and mechanisms; also, it signals the transition of the countries from the periphery (poor) group to the rich one.

To examine the question of the real convergence from different angles, two classes of models have been designed and used: neoclassical and endogenous. In our study we tried to show the limitations of the neoclassical model and, especially, the failure of the assumption concerning the decreasing rate of return on capital. Finding ourselves in opposition to this kind of model, in this study we present the most important features of the endogenous growth model (and derived models) and its capability to include and/or consider the real convergence (divergence) factors.

The latest empirical research aimed at the validation of various convergence hypotheses proves that there is not and it cannot be an alignment of all countries with an “absolute convergence”. What the economic and social reality of the countries and regions confirm is rather the “group convergence”, viewed in its dynamics and in relation to the factors of influence acting within the system. Under the present circumstances, the factor that determines the dynamics of the developed countries is knowledge, in its multiple forms. The knowledge factor determines the higher growth rates of the developed countries, if compared to the poor ones.

As pointed out above, market mechanisms are not able to support the convergence process, especially when there is a wider gap in the development level of the countries and regions. On the contrary, the mechanism stimulates, first, the economic clustering, the formation of

development poles, which rather cause wider gaps. Considering these natural processes, the European Union tries to correct the shortcomings of the free market laws by the cohesion policy, besides the sectoral policies, with favourable effects on the economic convergence of the less developed countries with the developed ones.

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9. NOMINAL CONVERGENCE*

European integration requires convergence not only on the institutional and real economy areas, but also on the nominal area, by the creation and consolidation of the monetary union and the transition of the EU member countries to the single currency (euro). Having joined the European Union – as a proof of the general achievement of institutional convergence – the countries become very soon members of the Economic and Monetary Union and are entitled, *ex officio*, to adopt the single currency while complying with the criteria of the Maastricht Treaty.

9.1. Preliminary remarks

Nominal convergence is a multilateral process, defined by the gradual harmonisation, at a relatively high rate, of the national institutions and policies of the member countries with the EU ones, in the monetary and financial field.

The European integration has covered several stages so far: Free Trade Area, Customs Union, Common Market, Internal Single Market (EU), Economic and Monetary Union (EMU) and full economic integration, as the last integration stage. The EMU is an upper stage of multinational integration that implies the following: common monetary policy, proper coordination of the economic policies of the member states, single currency, full liberalisation of the capital flow, an effective institutional system for the monetary policy coordination and control.

The principle of subsidiarity is excluded from the monetary field. As regards the common monetary policy, unlike other issues, the member countries transfer the decision-making from the national level to the Community one and give up their sovereignty over the monetary policy.

The history of the preparations for nominal convergence is relatively similar and closely connected to the history of the economic integration. Such preparations may include first the actions for the creation of the European institutions, such as: the European Union of Payments (1950), the European Monetary System (1979), the Committee for the Study of Economic and Monetary Union (1988), the European Fund for Monetary

* *The study was conducted within CEEX Programme, Project "Economic Convergence and Role of Knowledge in Relation to the EU Integration. Published in Review of Economic and Business Studies No. 2, 2008 and in Aurel Iancu (ed.), Economic Convergence, vol. 1, Editura Academiei Romane and CHBeck, 2008.*

Cooperation (1973), the European Monetary Institute (1994), the European System of Central Banks (the European Central Bank and the central banks of the member states), the creation and updating of the exchange rate mechanism.

Without diminishing the importance and role of the above institutions, one may consider the Maastricht Treaty as the “birth certificate” of the EMU and the nominal convergence concept. Obviously, the Treaty: (1) caused the introduction of the common monetary policy based on a single currency, administered by a single independent central bank – the European Central Bank (ECB); and (2) set the nominal convergence criteria to be fulfilled by the member states in order to become members of the European Monetary Area.

The fundamental objective of the common monetary policy and exchange rate policy, set by the Treaty, is, on the one hand, price stability and, on the other hand, support (without any damage to price stability) for the general economic policy of the EU for real convergence, by catching up with the developed countries, in compliance with the principles of the market economy, competition and cohesion.

On the common monetary policy. It is a known fact that the EMU is based on three main pillars: monetary, fiscal and economic/structural¹. The transition to the EMU entails differentiated changes in the policies and the decision systems for the three pillars. The monetary pillar is based on a very centralized coordination, achieved by the replacement of the national policies with Community policies. Moreover, action is taken to adapt the entire institutional system as well as its infrastructure, in support of the above changes.

The changes in the other pillars are less spectacular as regards the political and decision-making competence. The EMU member states model their responsibility for the economic policy in accordance with the subsidiarity principle and what is required by the open marked economies and the fair competitive environment. Here, the stress is laid, on the one hand, on extending the coordination of the fiscal policy to the EU and, on the other hand, on increasing the capability of the member states to gradually achieve convergence in the economic performance field.

On the nominal convergence criteria. These criteria are the minimal requirements to be met by an EU member state to enter the euro zone. Joining the euro area means that the states must give up their national currency and their national monetary policy and, equally, adopt both the

¹ Lutaş, Mihaela, Uniunea Economică și Monetară, *Institutul European din România, București, august 2005.*

single European currency and the common monetary policy, formulated and coordinated by the European Central Bank.

9.2. The stages of nominal convergence

Nominal convergence by monetary integration is a long process. This process is closely linked with the institutional and real convergence and implies three main stages: pre-accession to the EU, post-accession to the EU and euroisation.

9.2.1. The pre-accession stage

This stage is connected with the institutional changes and construction, as well as with the mechanisms of the monetary system. It lasts until the accession to the EU. During the pre-accession stage, the applicant countries, on the one hand, maintain their monetary sovereignty, which enables them to choose the proper exchange rate regime, as a ground of the macroeconomic stability. On the other hand, the countries are compelled to adopt the Community *acquis* concerning the independence of the central bank, the liberalisation of the capital flows, the ban on the direct financing of the government by the central bank, the ban on the privileged access of the government to financial institutions.

At this stage to achieve macroeconomic stability by diminishing inflation, controlling the balance of payments, and keeping the budget deficit and public debt at a reasonable level, the applicant countries are free to use the most adequate/efficient exchange rate regimes. Actually, the regimes cover the entire range of arrangements: from the rigid/fixed regime imposed by the monetary council to the free floating regime. During the pre-accession to the EU (1999-2004 and 1999-2006)², the candidate countries established the exchange rate regimes presented in Table 1.

Practice proves that there is no single recipe to optimize the exchange rate regime in these countries. The selection of the regime was based on features and priorities specific to each country. Either opting for flexible solutions (free floating and controlled floating) or opting for the fixed exchange rates, governments managed to fulfil the main task concerning

² We considered this interval since 1999 (the year when the European single currency – euro – was adopted) and 2004 witnessed the accession to the EU of ten countries: the Czech Republic, Cyprus, Estonia, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia and Hungary. As for Romania and Bulgaria, the pre-accession period ranged since 1999 up to 2006, for the same reasons.

the inflation decrease, the balance of payments equilibrium, the protection against speculative attacks and the prevention of the negative effects of volatile capital.

Table 1

**The exchange rate regimes in the countries which acceded to the EU
in 2004 and 2007**

Country	Exchange rate regime
Czech Republic	Controlled floating
Estonia	Monetary council (fixed rate)
Latvia	Monetary quasi-council (fixed target and special drawing rights)
Lithuania	Monetary council (fixed rate)
Poland	Sliding lane $\pm 15\%$ (since 2001, free floating)
Slovakia	Controlled floating
Slovenia	Controlled floating
Hungary	Sliding lane $\pm 15\%$
Bulgaria	Monetary council (fixed target, euro)
Romania	Controlled floating

Source: De Haan J.S.C., W. Eijffinger and S. Waller (2004), The European Central Bank: Centralization, Transparency and Credibility, Cambridge M.A., MIT Press; Irina Bălteanu, "Există riscul unui atac speculativ în țările în tranziție înainte de intrarea în Uniunea Economică și Monetară?", in Daniel Dăianu, Mugur Isărescu, Noul economiști despre tranziția în România, Editura Enciclopedică, București, 2003.

The adoption of different exchange rate regimes was meant either to ensure price stability, whether they were compatible or not, or to achieve exchange rate stability. During the transition period (1991-2004), the countries shifted from quick mechanisms to flexible mechanisms to ensure disinflation and economic growth. Only the countries confronted with monetary crisis and excessive openness due to the small size of the national economy (Bulgaria, Estonia, Latvia, Lithuania) adopted a monetary council or fixed exchange rates in order to ensure monetary stability and prevent speculative attacks. In principle, the selected exchange rate regime is a key determinant of a country's macroeconomic stability, which influences the investment and business environment of the country; therefore, governments must use this regime as an important anchor of the economic policy.

Since there were no constraints during the pre-accession period, it was possible to adopt different types of exchange rate. The ten countries that joined the EU on May 2nd, 2004, and Romania and Bulgaria, on the 1st of January, 2007, must adopt another exchange rate mechanism, called the

Exchange Rate Mechanism II (ERM II), as a lead-up to the accession to the euro area³.

9.2.2. *The post-accession stage*

This stage ranges from the countries' official accession to the EU up to the accession to the Euro Area. The main feature of this stage is that the countries lose most of their monetary sovereignty, since the European Central Bank takes over most tasks from the national central banks in matters of monetary policy.

In the single market based on the free movement of the goods, services and factors, the effects of excessive fluctuations in the exchange rate of an EU member states extend freely to the entire Community economy and damage the other member states. That is why exchange rates are common problems that must be solved on the EU level. Under these circumstances, the monetary policy of the new EU member states is subject to a new exchange rate mechanism (ERM II), meant to assure price and exchange rate stability in accordance with the convergence criteria of the Maastricht Treaty, as a prerequisite to the accession to the Euro Area.

Any discussions about the advantages and disadvantages of various currency arrangements, as well as the desire for a shorter or immediate accession to the Euro Area are practically superfluous. The new member states can no longer have their own options that might contradict the official position of the EU, since either the problems are clarified by treaties and agreements, or the countries have no significant power of negotiation with the Community authorities in order to influence the decision-making.

According to the Copenhagen criteria, the new EU member states have to make every endeavour to accede to the EMU as soon as possible, provided that they meet the criteria. So, the new-comers are not allowed to delay the ERM II adoption and accession to the Euro Area, like the United Kingdom and Sweden were allowed to.

Romania, and other countries which signed the Accession Treaty, set different terms for the ERM II adoption and integration into the Euro Area, in accordance with their own pace (Table 2).

³ *Initially, the exchange rate mechanism was very restrictive, as the daily fluctuations had to range between $\pm 2.5\%$, as against the two-year average. This mechanism was called ERM I. Following the frequent non-observance of these limits by the member states, the fluctuation range was extended to $\pm 15\%$. This is the ERM II.*

According to the EC and ECB regulations, the new member states may accede to the Euro Area provided that they participated at least two years in the ERM II, which is a stage characterized by fixed, yet adjustable, exchange rates, but still adjustable.

Table 2

The schedule of some CEE countries for joining the ERM and Euro Area

Country	EU accession time	ERM II joining time	Target-time for the accession to Euro Area
Poland	2004	2006	2009-2010
Czech R.	2004	2006-2007	2009-2010
Slovakia	2004	2006 (first half of the year)	2008-2009
Hungary	2004	2007-2008	2010-2011
Romania	2007	2010-2012	2012-2014

Source: Mugur Isărescu, Programul economic de preaderare, ediția 2005, Obiectivele pe termen mediu ale politicii monetare și cursului de schimb, București, 20 iulie 2005; Napoleon Pop, "Adoptarea euro de către România. Recomandări pentru pregătirea unei strategii de success", INCE, Probleme economice, colecția "Biblioteca economică", vol. 173, 2005, p. 29.

Therefore, the new-comers become, within a short period (about two years), EMU members. The table shows that the accession to the EMU II takes two years after the accession to the EU. There are countries which adopted the ERM II at the accession time (Italy, Finland, Greece, Latvia, Cyprus, and Malta), while others adopted it one month later (Estonia, Lithuania, and Slovenia). This was mostly a consequence of the policy for the liberalisation of the international capital flows, as an important and sensitive part of the Community acquis, "although they became more vulnerable to speculative attacks"⁴.

The formulation of the monetary policy in the pre-accession period is based on the four nominal convergence criteria stipulated by the Maastricht Treaty, namely: price stability, exchange rate stability, diminishing long-term interest rate and a sustainable fiscal status (non-excessive deficit) (Table 3).

⁴ *It is a unilateral voluntary engagement of the countries, which does not mean an additional obligation for the ECB (Sylvester Eijffinger, "Comment", in European Central Bank, The New EU Member States Convergence and Stability, Third Central Banking Conference, 21-22 October 2004, pp. 177-8).*

The nominal convergence criteria have a strong political motivation. This motivation is connected with the economic and monetary stability and the economic performance of the countries with the best practice, since these countries are considered as benchmarks for the evaluation of the nominal convergence criteria.

Table 3
List of the nominal convergence criteria of the Maastricht Treaty*

Criteria	Explanation and limits
1. Price stability	The average inflation rate throughout one year before the accession to the Euro Area shall not exceed by over 1.5 percentage points the inflation rate of the three member countries with the best results in matters of price stability.
2. Sustainable fiscal status	Budget deficit below 3% of the GDP. Public debt below 60% of the GDP.
3. Exchange rate stability	Observance of the normal fluctuation lanes of $\pm 15\%$, provided by the ERM at least in the last two years before the country accession to the EMU and no devaluation of the national currency in relation to the euro during the same period.
4. Lower long-term interest rate	The long-term interest rate shall not exceed by maximum two percentage points the average of the interests of the three countries with the lowest interest.

* According to the Protocol concerning the nominal convergence criteria (Annex to the Treaty), the inflation is computed by one consumer price index on a comparative basis, taking into account the differences in the national definitions.

Source: The Maastricht Treaty (Article 121), The Treaty for the Institution of a Constitution for Europe (Article III 198) and The Protocol on the Convergence Criteria (Annex to the Treaty for the Institution of a Constitution for Europe).

Although all the countries which joined the EU virtually became (after a certain period) EMU members also, still their status in relation to the Euro Area was not the same. Out of the 27 member states, twelve are integrated into the common monetary area (Euro Area)⁵, two benefit from the so-called

⁵ The following countries adopted the euro: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain.

opting-out clause, which allows them to opt or not for the Euro Area⁶, while the other countries (which joined the EU after signing the Maastricht Treaty) will become EMU members⁷, that is, they will have access to the Euro Area and adopt the single currency only after participating, at least two years, in the ERM II⁸ (as a lead-up period) and only if they prove by concrete results that they comply with the nominal convergence criteria. As long as these criteria are not attained, those countries remain member states with a derogation status, excluded *de jure* and *de facto* from the rights and obligations of the European System of the Central Banks, and the rights and obligations of the Euro Area.

As for the access of the EU member countries to the Monetary Union, The Treaty compels the EC and ECB to assess these countries' compliance with the nominal convergence criteria. The assessment is annual and included in the above-mentioned institutions' reports. For example, according to the 2004 reports, none of the countries which acceded to the EU after 1994 met the nominal convergence requirements. Table 4. contains the results of the assessment concerning the fulfilment of the four convergence criteria by the above-mentioned countries, to which we add Romania.

The table shows that no country that acceded to the EU in 2004 fulfilled all convergence criteria to be immediately accepted into the EMU. Analysing the assessment of the fulfilment of the criteria by each country, we find out the following: two countries (Poland and Hungary) fulfilled no criteria; two countries (Malta and Slovakia) fulfilled one criterion; five countries (Estonia, Czech Republic, Cyprus, Latvia, Slovenia) fulfilled two

⁶ They are Denmark and the United Kingdom, members of the Community before signing the Maastricht Treaty. They benefit from the opting-out clause. It is a special status granted to these countries, which did not intend to accede to a certain field of economic cooperation. This exceptional status was meant to avoid the general blocking of the integration advance. For example, the United Kingdom did not wish to join some of the EMU institutions, especially those concerning monetary integration. As for Denmark, the exceptional status is extended to issues regarding EU defence and citizenship.

⁷ This category of states includes all countries which acceded after signing the Maastricht Treaty. Sweden acceded to the EU in 1995, the Czech Republic, Estonia, Latvia, Lithuania, Poland, Slovakia and Hungary acceded in 2004, and Romania and Bulgaria in 2007.

⁸ Until 1999, the ERM (as an important element of the European Monetary System) was a multilateral system of parities which allowed each currency to fluctuate within a limited lane in relation to every currency included in the system, by setting a central parity rate in ECU. It was called the first exchange rate mechanism (ERM I). With the adoption of the euro in 1999, a new exchange rate mechanism, called ERM II, was adopted. Therefore, the multilateral system was replaced with the bilateral one, according to which each national currency is defined by a central parity rate in euros.

criteria; two countries (Sweden and Lithuania) fulfilled three criteria. In 2004, Romania fulfilled only one criterion (financial stability).

To assess the fulfilment of the convergence criteria by Romania and Bulgaria in comparison with the Czech Republic (a country on a higher development and integration level), we present in Table 5., on the one hand, the limit (reference) values computed in accordance with the rules stipulated by the Treaty, and, on the other hand, the effectively achieved indicators.

Table 4

Degree of fulfilment of the convergence criteria in 2004 by the EU member countries that signed the Treaty after 1994, plus Romania

Country	Price stability	Governmental financial stability (deficit and public debt)	Exchange rate stability	Long-term interest rate
Czech Republic ^{x)}	Yes	No	No	Yes
Estonia	Yes	Yes	No	-
Cyprus	Yes	No	No	Yes
Latvia	No	Yes	No	Yes
Lithuania	Yes	Yes	No	Yes
Malta	No	No	No	Yes
Poland	No	No	No	No
Slovenia	No	Yes	No	Yes
Slovakia	No	No	No	Yes
Sweden	Yes	Yes	No	Yes
Hungary	No	No	No	No
Romania	No	Yes	No	No

^{x)} Later computations revealed that the Czech R. also fulfilled the criterion of the exchange rate stability.

Source: European Commission, October 2004. Data from *Assessment of the Fulfilment of the Maastricht Convergence Criteria and the Degree of Alignment of the Czech Economy with the Euro Area, Report 2005*, by the Government of the Czech Republic; European Commission, *Romania 2005 Comprehensive Monitoring Report*, 25 Oct. 2005; European Commission, *Bulgaria 2005 Comprehensive Monitoring Report*, 25 Oct. 2005.

Also, to assess the exchange rate stability, we present graphically the daily fluctuations in Romania, the Czech Republic, Poland and Bulgaria in four years (2002-2005), and check whether the fluctuations ranged within \pm

15 %, as against the reference average rate computed for 2002-2006⁹ (called the central rate of parity), considered by the Treaty as one of the convergence criteria that condition the access to the Euro Area¹⁰ (Figure 1).

The central parity is the daily rate average in 2003-2004. Although the daily rate fluctuation was significant, it remained within the corridor consisting of two lanes, +15% and -15%, except for the Polish currency in a short period in 2004. The plus sign and the upward movement of the exchange rate in the chart mean the national currency depreciation in relation to the euro, and the minus sign and the downward movement of the exchange rate mean the national currency appreciation. Like the Czech Republic and the other countries, Romania is characterized by the appreciation of the national currency (leu) in relation to the euro and other currencies. It is not our intention to provide causal explanations of the above trend, but we only point out that this phenomenon causes tension in the economy, since it hinders exports and stimulates imports.

Table 5

Assessment of the fulfilment of some nominal convergence criteria of the Maastricht Treaty by Romania and Bulgaria in comparison with the Czech Republic

- percent -

	2001	2002	2003	2004
A. Indices of the corporate consumer price (inflation)				
1. Average in three countries with the lowest inflation	1.6	1.1	1.2	0.9
2. Reference value (line 1+1.5 p.p.)	3.1	2.6	2.7	2.4
3. Effective inflation value for:				
• Czech R.	4.5	1.4	-0.1	2.7
• Romania	34.5	22.5	15.3	11.9
• Bulgaria	8.9	7.3	3.8	7.6
B. General governmental deficit in relation to the GDP				
1. Reference value	-3.0	-3.0	-3.0	-3.0
2. Effective value for:				
• Czech R.	-5.9	-6.8	-12.6	-5.2
• Romania	-3.5	-2.0	-2.0	-1.4

⁹ For 2006, the data were available for the first months.

¹⁰ The narrow lane of $\pm 2.5\%$ had been operational until 1992-1993, when the European Monetary System collapsed, since it was too restrictive. The narrow lane was replaced with a broader one, of $\pm 15\%$ around the central parity, considered as being comfortable enough (Wilhelm Salater, "Alegerea regimului de politică monetară în țările aflate în proces de aderare la Uniunea Europeană; întreținerea directă a inflației și Consiliul Monetar", in Daniel Dăianu and Mugur Isărescu (coord.), Noii economiști despre tranziția în România, Ed. Enciclopedică, 2003).

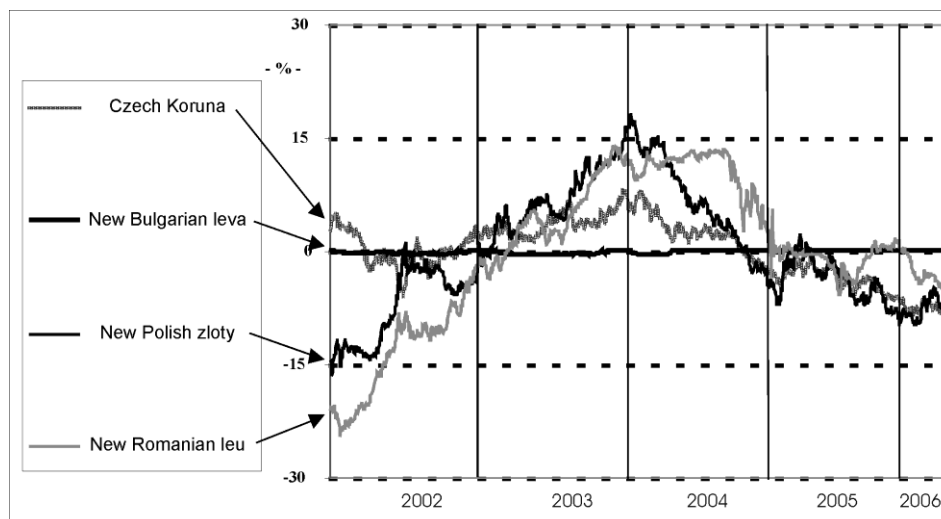
	2001	2002	2003	2004
• Bulgaria	1.4	-0.2	0.6	1.3
C. General governmental debt in relation to the GDP				
1. Reference value	60.0	60.0	60.0	60.0
2. Effective value for:				
• Czech R.	25.3	28.8	37.8	38.6
• Romania	23.2	23.3	21.8	18.5
• Bulgaria	78.6	65.1	60.5	63.0
D. Long-term interest rate				
1. Average in 3 countries with the lowest inflation	...	4.90	4.12	4.28
2. Reference value (line 1+2.0 p.p.)	...	6.90	6.12	6.28
• Czech R.	...	4.94	4.12	4.75
• Romania	...	....	....	6.75 ^{x)}

^{x)} Mugur Isărescu, *Obiective pe termen mediu ale politicii monetare și cursului de schimb, Programul economic de preaderare, ediția 2005.*

Source: Assessment of the Fulfilment of the Maastricht Convergence Criteria and the Degree of Alignment of the Czech Economy with the Euro Area, Report 2005 by the Government of the Czech Republic; European Commission, Romania 2005 Comprehensive Monitoring Report, 25 Oct. 2005; European Commission, Bulgaria 2005 Comprehensive Monitoring Report, 25 Oct. 2005.

Figure 1

Exchange rate fluctuation as against the 2002-2006 average (limit corridor $\pm 15\%$).



Source: Based on Eurostat.

9.3. Controversies and debates concerning the transition to the EMU. The question of the Balassa-Samuelson effect

While the applicant countries enjoyed, during the pre-accession to the EU, a high level of freedom in formulating and implementing their monetary policy, this freedom lowered during the post-accession period due to the convergence criteria imposed by the Maastricht Treaty and the obligation to join ERM II before adopting the euro, in the context of full liberalisation of the trade and capital flows. Therefore, the range of tools for the economy control diminished and the degree of vulnerability of the macroeconomic stability increased, which might affect, to a great extent, the real convergence process.

In this context, many questions, debate topics and controversies have occurred. We approach some of them in brief.

9.3.1. The shortening of the euroisation period

The economic literature reveals that, in the case of the recent CEE members of the EU which were imposed restrictive conditions, this period implies excessive costs in exchange for uncertain and delayed benefits. Moreover, all capital of trust invested in the national currency for 4-5 years to achieve its appreciation and in the supporting institutions is suddenly shattered and becomes nil with the transition to the euro. It looks like the Sisyphian labour or a Fata Morgana chaser. The appreciated national currency, sovereignty over the monetary policy, ERM, etc. will be no longer necessary after the adoption of the euro.

The earlier integration of these countries into the Euro Area would spare major efforts, useless for some authors, and bring significant advantages, consisting of:

- *on the microeconomic level*, the elimination of the risk and cost of the exchange rate fluctuation, the elimination of the currency transaction cost, the increasing transparency of prices;
- *on the macroeconomic level*, the diminution in inflation and interest rates to be possibly achieved in the very moment of the euro adoption.

As ordinary EU members, the countries are no longer able to use the adequate tools for protection against speculative capital flows and benefit from the EU support. Joining the Euro Area earlier could protect these

countries against the possible volatility of the speculative capital or the speculative attacks.

The EMU authorities' and the EMU member countries' viewpoint is contrary to the above one. They consider that the new-comers must not join the EMU too early and reject unilateral euroisation. On adopting the euro, the CEE countries must not have a weak currency. Otherwise, it may endanger the euro stability and credibility, on the one hand, and force the countries to request, after joining the EMU, financial support from the European Community in case of asymmetrical shocks after the euro adoption, on the other hand.

These countries should join the new club in good condition with sound economies, able to face the shocks caused by the enlarged competitive market. Having joined the EMU, the countries are deprived of their monetary policy tools and, consequently, their main means to avoid imbalances are those that ensure the flexibility of the real economies (production structure, workforce, wages, etc.) and the financial tools. To reach the EMU stage, the new EU members must finalize the intermediate stage – often compared to the Purgatory – for testing the financial tools and the competition institutions, as well as for adjusting the economic branches, the production and the production factors.

During the lead-up period, the countries must eliminate the causes of the internal shocks, avoid and diminish the external asymmetrical shocks and create more flexible adjustment mechanisms in the absence of national monetary policies. The EMU authorities wish that the euroisation of the new-comers took place gradually and orderly and ensured, at the same time, nominal and real convergence. They think that the exposure of unprepared economies, *i.e.* not very flexible ones, to the rigorous discipline of the European single currency could be very hazardous, first to the economies themselves, but also, to some extent, to the whole European economic system.

9.3.2. Exchange rate stability versus inflation rate diminution and the Balassa-Samuelson effect

A largely debated topic concerning nominal convergence is the impossibility that the CEE countries fulfil, after the pre-accession to the EMU, the following two conditions: *the exchange rate stability and the inflation rate diminution*. In fact, it is a return to a hypothesis formulated independently by Balassa and Samuelson in 1964 in connection with the effects of the economic relations between the developing and the

developed countries. They started with the division of the economic branches into two large sectors – tradable for export and non-tradable ones – implying a faster productivity growth in the tradeable sectors than in the non-tradable ones, in the less developed countries. They proved that, in this case, not only a higher rate of inflation, caused by the non-tradable goods (services) sector would occur, but also the appreciation of the real exchange rate, caused by the higher productivity of the tradable goods sector, would take place.

The model of the Balassa-Samuelson (B-S) effect is fully valid for the CEE countries, in full process of integration into the EMU, due to some situations (hypotheses) similar to those considered by the two economists many years ago.

The first similar situation refers to the existence of economic development gaps between countries expressed by the GDP per capita and computed in relation to the purchasing power parity (PPP-euro). Even on the European level there are significant differences in economic development between the EU-15 and the countries which joined in 2004 and 2007. It is worth mentioning that these countries are less developed than Greece, Portugal and Spain at the time of their accession to the European Community (Table 6).

Table 6

The position of the countries acceding to the EU in relation to the development level (per capita GDP computed on the basis of the PPP-euro, percent)

EU 15 average	100.0
Czech R. (2004)	64.6
Estonia (2004)	47.1
Latvia(2004)	39.4
Lithuania (2004)	43.9
Poland (2004)	45.1
Slovakia (2004)	48.8
Slovenia (2004)	72.7
Hungary (2004)	55.3
Bulgaria (2007) ^{*)}	32.1
Romania (2007) ^{*)}	32.8
Greece(1981)	62.4
Portugal 1986)	60.8
Spain (1986)	73.7

⁷⁾ *The data on Bulgaria and Romania are based on the estimated PPP-euro in the accession year, 8700 and 8900 euros, and the relation to the EU average is based on the estimated PPP in 2007, i.e., 27100 euros.*

Source: Eurostat; data on Greece, Portugal and Spain, in Laszlo Halpern and Charles Wyplosz, "Economic Transformation and Real Exchange Rates in the 2000's; The Balassa-Samuelson Connection", Chapter 6, in Economic Survey of Europe, 2001, No. 1, UN/ECE, Geneva, September 2001, p. 4.

Taking into account the special cases of Romania and Bulgaria the B-S effect might have a stronger impact on both the evolution of the inflation and the appreciation of the real exchange rate. But the size and direction of the impact on the two objectives might be different in the two countries due to the different existing exchange rate regimes.

The second situation (hypothesis) considered by the B-S theory, similar to that of the CEE countries, is related to the consequences or the effects of the implementation of the strategy for catch-up with the developed countries by productivity increase and trade integration. On the supply side, a more significant and faster improvement of productivity takes place in the tradable goods sector (industry) than in the non-tradable goods sector (services)¹¹, which includes the so-called public goods, as well as the public utilities with a monopolistic or semi-monopolistic character.

As a rule, an increase in productivity is accompanied by a rise in wages. Therefore, a faster increase in the productivity of the tradable goods sector than in the non-tradable goods sector causes a faster rise in wages in the former, as it exceeds the wage level of the latter. The possibility that the workforce will move towards better paid jobs exerts a real pressure on the non-tradable goods sector for a rise in wages, but without the corresponding increase in productivity. One should also consider the

¹¹ *Some authors doubt whether this hypothesis is true, since one should take into account that the services sector also feels the increasing effect of the scale economy, production diversification, as well as the elasticity increase with the sensible rise in the income of the population. For example, Halpern and Wyplosz (2001) write that the assertion that most of the productivity gain occurs in the tradable goods sector is not thoroughly true, as long as the non-tradable goods and services are inputs of the tradable goods production and, consequently, are confronted with indirect competition. Moreover, most services are superior goods that improve the standard of living and increase demand. Therefore, there is little doubt whether productivity will increase faster in the tradable goods sector than in the non-tradable goods sector (Laszlo Halpern and Charles Wyplosz, "Economic Transformation and Real Exchange Rates in the 2000's: The Balassa-Samuelson Connection", in Economic Survey of Europe, 2001, No. 1 UN/ECE Geneva, September 2001, pp. 7).*

pressure exerted by the trade unions from the public services for a rise in wages, justified not by the productivity increase, but by the scarcity of the means of subsistence.

As the rise in wages is not matched by the rise productivity, the only way to cover the costs with the incomes, plus a minimum profit, in the non-tradable goods (services) sector is to raise the prices of such goods. Besides, there is something else that counts: since some of the goods produced by this sector are inputs of the tradable goods sector, a rise in the price of the latter may occur at a rate above the productivity rate increase in this sector. If the rise in price is not accompanied by at least equal productivity increases, then an inflation increase occurs.

In this equation, one should also include the demand-side dynamics, influenced by the rise in income, caused by the productivity increase. Demand is different in relation to the goods from the two sectors: either at equal rates for both categories of goods, or at higher rates for the tradable goods, or, finally, at higher rates for the non-tradable goods (services). Each alternative has a different impact on the inflation rise.

According to the analysis of the statistical data on the CEE countries, Halpern and Wyplosz (2001) conclude that non-tradable goods price inflation is higher in the countries with a faster productivity increase. Therefore, countries with faster economic growth are expected to reach a higher price rise rate for the non-tradable goods. Obviously, this influences the general price index of the consumer goods, as an average of the prices of tradable and non-tradeable goods.

The third situation, similar to that analysed by Balassa and Samuelson, is related to the impact of trade integration on the exchange rate evolution. The analysis of the exchange rate and its evolution under the impact of trade integration is important from two viewpoints: the re-evaluation of the causes of the fluctuations on short and medium terms and the long-term balance (convergence) trend, which confirms the law of one price (LOOP). Both aspects are debated by experts and the outcome is remarkable. But our attention was drawn by the studies on the B-S effect in relation to the impact of the relations between the rise in productivity, wages and prices in the two sectors producing tradable and non-tradable goods on the evolution of the real market exchange rates, in comparison with the exchange rates based on the estimation of the purchasing power parity, taken as benchmark (Egert, Halpern and Mac Donald, 2005; Halpern and Wyplosz, 2001; Breuss, 2003, etc.). The studies of the CEE economies conclude that the real market exchange rates tend towards the balance (convergence) state, initially, by the prevention of the under-appreciation of the national currency against the reference currency and, later, by real appreciation, as

a natural process of positive evolution of the real economy consisting in the increase in productivity and competitiveness based on quality.

9.3.3. Exchange rates and deviation indices

A largely discussed topic, especially by exporters and importers, is that of the currency appreciation or depreciation (in relation to the reference currency), as an important factor influencing competitiveness, knowing that a significant appreciation of the national currency hinders exportation and stimulates importation, while depreciation acts the other way round. The Romanian exporters' appeal to the national public authorities for preventing the appreciation of the leu is actually ineffective, since, in our case, it is a natural market process and the Government's intervention is contrary to the EU regulations.

Further, we try to explain and assess the appreciation of the CEE countries' (including Romania's) currencies in relation to the reference currency (euro), using as computation tools the market exchange rate and the purchasing power parity (PPP).

Denoting by E the nominal exchange rate of the national currency in relation to a foreign (reference) currency, by P the internal price, and by P^* the external price of the goods, the relation:

$$E = P/P^*, \quad (1)$$

called the market exchange rate, expresses the number of units of the national currency per one unit of foreign currency in external transactions.

Value P can be computed by relation (2):

$$P = EP^*. \quad (2)$$

The exchange rates also can be expressed by a converse ratio:

$$e = P^*/P, \quad (3)$$

which means the number of foreign currency units per one national currency unit. Relation (3) helps us to compute P :

$$P^* = eP. \quad (4)$$

There is an extensive literature dealing with the exchange rates produced by the free market mechanisms; it covers several aspects, among which the fluctuation, equilibrium (convergence) and international comparisons of the trend and behaviour of the exchange rates play a key role.

The analysis of the evolution of the market exchange rates reveals two requirements: on the one hand, to set benchmarks or convergence points for those rates, and, on the other hand, to consider comparable measures to be used for the comparisons between countries, especially between those showing considerable differences in the development levels.

In spite of the criticism of the purchasing power parity (PPP), the adoption and use of the exchange rate based on this concept, as a calculation and analysis tool, may help fulfil the above-mentioned requirements. To do that, some methodological clarifications are necessary.

Unlike the market exchange rates (E and e), that represent the natural outcome of the market mechanisms in the monetary-financial domain, the PPP exchange rates (E^{PPP} and e^{PPP}) are estimated on the assumption that the same set of international prices is used in two or more countries compared by the same goods and qualities of the so-called "basket of goods" (P_{BG}), in the following relations:

$$E^{PPP} = P_{BG} / P_{BG}^* , \quad (5)$$

where:

$$P_{BG} = E^{PPP} P_{BG}^* , \quad (6)$$

as well as the converse ratio:

$$e^{PPP} = P_{BG}^* / P_{BG} , \quad (7)$$

where from:

$$P_{CB}^* = e^{PPP} P_{BG} . \quad (8)$$

Theoretically, the PPP exchange rate is based on the law of one price.

As regards the utilisation and interpretation of the real market exchange rates¹² in relation to the PPP exchange rates, the time horizon (Rogoff, 1996) should be taken into account, as follows:

- on long and very long terms, when some real exchange rates tend towards the PPP exchange rate at a very low convergence speed;
- on short term, when there is a deviation of the market exchange rates from the PPP exchange rate, considered as benchmark.

On the basis of these simple relations concerning the two categories of indicators, an evaluation can be made on the position of the market exchange rates in relation to the equilibrium (convergence) state, since:

$$E/E^{PPP} = 1, \quad (9)$$

and

$$e/e^{PPP} = 1, \quad (10)$$

express the convergence state.

But if:

$$E/E^{PPP} > 1, \quad (11)$$

it means that the national currency is undervalued in relation to the reference one, and the ratio does not express the convergence state. As

¹² The real exchange rates stand for the nominal exchange rates adjusted in accordance with the differences in the level of national prices.

long as the inequality is considerable and persistent, the market exchange rate is far from the convergence state.

On the macroeconomic level, all aggregated values that form the GDP can be expressed in two ways: 1) by means of the nominal exchange rate based on the consumer price indices (E); 2) by means of the nominal exchange rate based on the comparable PPP (E^{PPP}).

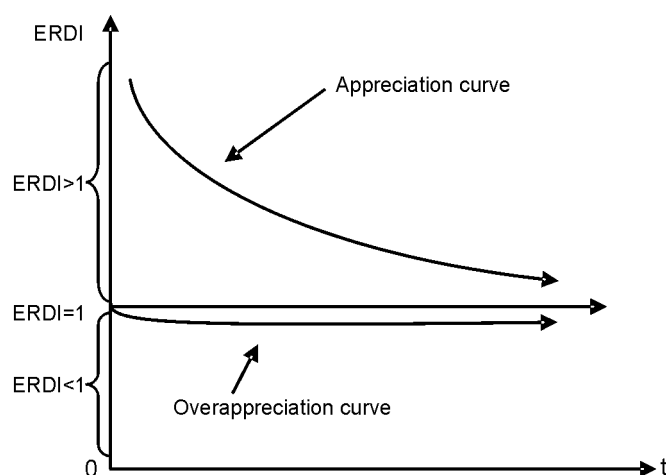
When expressed in the international currency (euro), the market exchange rate (E) may be undervalued or overvalued. It includes all current influences in the economy, including those from subjective factors. Expressed in the PPP, the exchange rate (E^{PPP}) reflects directly the effect of the law of one price (LOOP), according to which, in a competitive single market, there is an equalisation tendency for the prices of goods.

The overvaluation or undervaluation of the exchange rate may be determined by *the exchange rate deviation index (ERDI)*, computed by means of the ratio between the two types of exchange rate as defined above (the market exchange rate and the PPP exchange rate): E_1/E_1^{PPP} ; E_2/E_2^{PPP} ; ..., E_n/E_n^{PPP} .

In time, the index may take on values higher, equal or smaller than 1 (one), which means, respectively, depreciated, convergent and overappreciated market exchange rate in relation to the PPP standard exchange rate calculated. As regards the CEE countries, which underwent profound economic transformation and are close to the accession to the EMU, the ERDI describes a downward curve: ($ERDI_0 > ERDI_1 > ERDI_2 > \dots > ERDI_N$), asymptotic to unit (Figure 2).

Figure 2

The appreciation (convergence) of the national currency by ERDI



The downward ERDI curve of the CEE countries shows the quick appreciation of the national currency in relation of the euro.

9.4. Evidences concerning the real equilibrium exchange rate

The liberalisation of the national and international markets by removing the tariff and non-tariff trade barriers and strengthening integration, and market relations in all economic sectors, including public services (utilities, health, education, etc.) has contributed to the expansion of the tradable goods sector and the narrowing of the non-tradable goods sector. These actions led to the extension of the law of one price, *i.e.*, the cost of one good is the same both on the domestic market and abroad if the price is expressed in the same currency (Egert, Halpern, Mac Donald, 2005, p. 6).

In the countries or regions where such processes were completed and the economic distortions diminished due to reforms, the exchange rate deviation indices decreased and tended towards unit. Where the index was far above unit, the market exchange rate was underevaluated, and where the index was far below unit, the rate was overevaluated.

Table 7 shows the evolution of the market exchange rate deviation index as against the PPP in the CEE countries which joined the EU in 2004 and 2007, as well as in some EMU member countries. The indices represent the ratio of the GDP per capita assessed by PPP-euro to the GDP per capita assessed by the market exchange rates.

Table 7

The evolution of the market exchange rate deviation index in the new EU member countries and some EMU member countries, 1993-2006

	1993	1995	1999	2000	2001	2002	2003	2004	2005	2006
CEE member countries since 2004										
Czech R.	3.43	2.58	2.26	2.18	2.03	1.86	1.87	1.87	1.78	1.74
Estonia	5.01	2.60	1.92	1.90	1.80	1.76	1.74	1.74	1.67	1.63
Latvia	5.56	3.01	2.25	1.98	1.95	1.96	2.07	2.01	1.96	1.88
Lithuania	9.07	3.85	2.42	2.16	2.15	2.08	2.06	2.06	1.97	1.92
Poland	...	2.27	2.12	1.94	1.73	1.82	2.045	2.07	1.84	1.79
Slovakia	2.89	2.45	2.47	2.33	2.31	2.27	2.08	1.91	1.87	1.81
Slovenia	1.77	1.34	1.36	1.40	1.39	1.35	1.33	1.37	1.38	1.37
Hungary	2.31	2.28	2.21	2.13	2.03	1.82	1.77	1.69	1.66	1.69

CEE member countries since 2007										
Bulgaria	4.19	3.98	3.31	3.18	3.03	2.88	2.85	2.75	2.69	2.62
Romania	4.23	4.20	3.20	2.78	2.72	2.72	2.69	2.59	2.10	2.06
EMU member countries										
Greece	1.43	1.29	1.23	1.27	1.25	1.27	1.25	1.22	1.97	1.18
Spain	1.18	1.16	1.19	1.18	1.16	1.16	1.14	1.13	1.10	1.07
Portugal	1.46	1.34	1.35	1.35	1.32	1.31	1.20	1.20	1.19	1.19
Italy	1.14	1.19	1.08	1.09	1.06	1.05	1.01	1.01	1.00	0.99
France	0.93	0.87	0.94	0.96	0.97	0.96	0.94	0.93	0.93	0.93

Source: Own calculation based on Eurostat data, using the GDP per capita, in current price expressed in euros, through the market exchange rate and the PPP exchange rate; the 1993 and 1995 data on Romania and 1993 data on the Czech Republic are taken from B. Egert, L. Halpern and R. Mac Donald, "Equilibrium Exchange Rates in Transition Economies: Taking Stock of Issues", Working Paper, No. 739/2005, William Davidson Institute, Michigan.

Considering the values in the table, we may conclude the following:

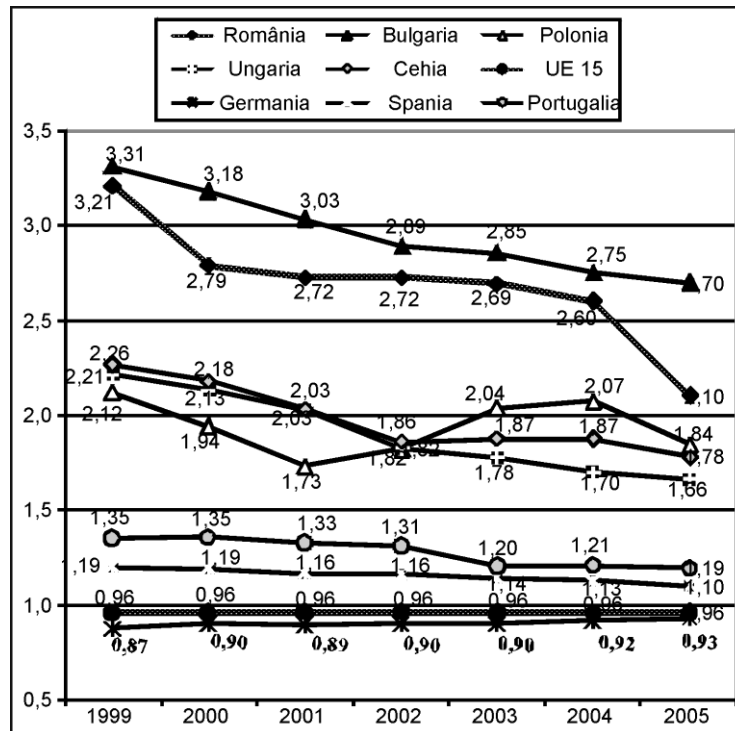
1. The real exchange rates are, in general, extremely undervalued in the CEE countries. The undervaluation took place especially in the early 1990's; it began with the elimination of the constraints on the demand for hard currency and was further amplified by the shocks caused by some actions of the economic reform, such as: price liberalisation, privatisation, poor management on every level, re-orientation of the trade flows, increasing corruption, legislative void, strong economic recession, along with a high inflation, close to hyperinflation, in some cases. One may also add to them political actions for the national currency devaluation in order to improve the foreign balance of the countries.
2. The significant undervaluation of the real exchange rate in the early 1990's, when Romania, Bulgaria and the Baltic countries were at the top, was followed by the appreciation in all countries, along with the economic recovery and productivity improvement at rates higher than those of many EU member countries. In spite of the progress made in this respect, the CEE countries are still affected by a relatively significant undervaluation. Therefore, there still are many resources of appreciation of the real exchange rates. But it may cause commercial troubles: export discouragement and import encouragement.
3. Unlike the CEE countries, the developed EU member countries witnessed the overvaluation of the real exchange rate. According to the data presented in Annex 1, the annual deviation index ranged between 0.95 and 0.96 in EU 15, between 0.78 and 0.96 in Germany,

and between 0.87 and 0.98 in France, etc. Also, the developed non-EU countries reached overevaluated real exchange rates.

Transposing some of the Annex 1 data into a chart (Figure 3), one may see the tendency towards convergence of the market exchange rates and the PPP exchange rates in all CEE countries, including Romania, illustrated by the evolution of ERDI. This tendency confirms, on the one hand, the appreciation of the national currency as an effect of the productivity rise, and, on the other hand, the effect of the law of one price in the context of the competitive market enlargement along with the integration into the EU. The free movement of goods, services, capital and individuals induces the significant diminution of transaction costs due to the elimination of all tariff and non-tariff barriers. The liberalisation of the capital account, the inflows of heavy direct investments in these countries, as well as the extension of partnerships among domestic and foreign companies cause the equalisation of capital costs, the restructuring of production branches by improving the quality and technological levels, as well as the improvement of products and services in a much larger market. But the main element that makes the difference in the EU prices is still the transportation and labour cost, knowing the low elasticity of labour in the European countries.

Also, the trend towards real exchange rate convergence confirms the theory concerning the B-S effect. Due to the restructuring and economic reform, market forces penetrate the non-tradable products sectors and, consequently, diminish the proportion of the ones that, without the corresponding productivity (therefore, unjustified), get a wage rise which influences inflation. Their openness and the acceptance of the competitive market forces are proved by the gradual elimination of controlled prices; therefore, their share in the consumer price index diminished between 1991-2004, from 47% to 22.5% in Romania, from 27.9% to 10.9% in the Czech Republic, from 11.0% to 1.0% in Poland. The action taken to push the non-tradable goods sector towards the market competition mechanisms brings about not only the dependence of the wage rise on labour productivity, but also the significant appreciation of the real exchange rates. This can be proved by the Table 8 data that reveal the significant difference in the ERDI by category of goods classified in accordance with the market relations. In general, the ERDI of the non-tradable goods – either industrial goods or services – is lower than that of the non-tradable goods.

Figure 3
The evolution of the ERDI in relation to the convergence (equilibrium)
state of some EU member countries (1999-2005)



Source: Based on Annex 1. data.

If the data on the ERDI level of various groups of goods and services in the CEE countries that joined the EU in 2004 are linked to the upward trend characterizing the transition of the sectors from a closed (protected) to an enlarged competitive regime, we may conclude that this process also contributes to the general trend of appreciation of the real exchange rates of these economies.

Table 8

The ERDI level by group of goods and services of the new in 2004 EU members (CEE 8), 2002

Tradable industrial goods			Services		
Durables	Semi-durables	Food	Tradable services	Non-tradable services	Property prices ^{*)}
1.13	1.47	1.46	1.80	2.42	2.41

^{*)} *This category of products and services includes those concerning intellectual property and industrial property, at semi-monopolistic prices.*

Source: Balász Égert, László Halpern and Ronald Mac Donald, Equilibrium Exchange Rates in Transition Economies: Taking Stock of the Issues, Williamson Davidson Institute, Working Paper, No. 793, October 2005, p. 14.

The results of the above analyses reveal the progress made by the CEE countries towards nominal convergence during the lead-up to the transition to the Euro Area. They deserve to be the object of further thorough research and scientific debates concerning the nominal convergence theory in close connection with the real convergence and institutional convergence theories.

Annex 1

Exchange Rate Deviation Index: GDP per capita expressed in PPP-euro and GDP per capita expressed in market exchange rate-euro, in the EU member countries

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
UE15	...	...	...	...	...	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Belgium	1.03	1.05	1.03	0.97	0.95	0.87	0.90	0.93	0.93	0.93	0.96	0.97	0.98	0.97	0.97	0.96	0.96	0.96
Czech R.	...	...	...	...	...	2.59	2.44	2.41	2.22	2.26	2.18	2.03	1.86	1.87	1.87	1.78	1.75	1.75
Denmark	0.78	0.80	0.80	0.78	0.78	0.72	0.73	0.75	0.75	0.77	0.78	0.78	0.76	0.75	0.76	0.75	0.74	0.74
Germany	...	0.96	0.93	0.86	0.86	0.78	0.82	0.85	0.86	0.87	0.90	0.89	0.90	0.90	0.92	0.93	0.94	0.95
Estonia	...	...	...	5.05	3.66	2.60	2.20	2.11	1.97	1.93	1.90	1.80	1.77	1.75	1.74	1.67	1.64	1.62
Greece	1.55	1.52	1.49	1.43	1.40	1.29	1.24	1.22	1.25	1.23	1.27	1.26	1.27	1.25	1.22	1.20	1.18	1.17
Spain	1.13	1.10	1.09	1.18	1.24	1.16	1.14	1.17	1.18	1.19	1.19	1.16	1.16	1.14	1.13	1.10	1.07	1.05
France	0.94	0.98	0.97	0.93	0.93	0.87	0.88	0.93	0.93	0.94	0.96	0.97	0.96	0.94	0.93	0.93	0.94	0.93
Ireland	1.08	1.12	1.11	1.12	1.11	1.06	1.04	0.98	0.98	0.95	0.92	0.89	0.86	0.84	0.85	0.84	0.83	0.82
Italy	1.02	1.00	1.02	1.14	1.17	1.19	1.08	1.06	1.08	1.08	1.09	1.07	1.05	1.01	1.00	1.00	1.00	1.00
Cyprus	...	...	...	...	...	1.16	1.18	1.16	1.15	1.15	1.14	1.14	1.13	1.08	1.11	1.09	1.10	1.10
Latvia	...	...	10.29	5.57	3.49	3.02	2.75	2.49	2.42	2.25	1.99	1.95	1.97	2.07	2.01	1.97	1.88	1.81
Lithuania	...	...	15.43	9.07	5.32	3.86	3.20	2.58	2.47	2.42	2.16	2.15	2.08	2.07	2.06	1.98	1.92	1.91
Luxembourg	0.98	1.01	0.99	0.91	0.88	0.80	0.82	0.85	0.86	0.89	0.89	0.88	0.88	0.89	0.91	0.88	0.87	0.86
Hungary	...	4.30	4.48	2.31	2.29	2.28	2.29	2.17	2.22	2.21	2.13	2.03	1.82	1.78	1.70	1.66	1.69	1.70
Malta	...	...	...	...	...	...	...	...	1.56	1.52	1.45	1.41	1.44	1.47	1.47	1.46	1.44	1.42
Netherlands	1.03	1.05	1.04	0.98	0.97	0.89	0.92	0.95	0.95	0.95	0.95	0.95	0.94	0.92	0.94	0.94	0.94	0.95
Austria	1.01	1.02	1.00	0.94	0.93	0.85	0.88	0.92	0.92	0.94	0.96	0.95	0.95	0.94	0.96	0.96	0.95	0.95
Poland	...	...	...	...	...	2.27	2.15	2.10	2.03	2.12	1.94	1.73	1.82	2.04	2.07	1.84	1.79	1.81
Portugal	1.70	1.60	1.45	1.46	1.45	1.34	1.32	1.33	1.34	1.35	1.35	1.33	1.31	1.20	1.21	1.19	1.19	1.18
Slovenia	...	2.02	1.92	1.77	1.70	1.34	1.39	1.38	1.35	1.37	1.40	1.39	1.35	1.33	1.37	1.38	1.38	1.37
Slovakia	...	...	...	2.90	2.75	2.45	2.43	2.29	2.29	2.47	2.33	2.32	2.27	2.08	1.91	1.87	1.81	1.81
Finland	0.74	0.79	0.93	1.05	0.98	0.82	0.86	0.88	0.89	0.89	0.90	0.89	0.89	0.88	0.89	0.90	0.91	0.91
Sweden	0.76	0.72	0.74	0.88	0.88	0.83	0.78	0.79	0.81	0.83	0.81	0.86	0.84	0.84	0.85	0.87	0.88	0.89
United Kingdom	1.07	1.04	1.08	1.12	1.12	1.12	1.10	0.95	0.92	0.90	0.85	0.87	0.89	0.94	0.92	0.92	0.92	0.92
Bulgaria	0.98	10.26	10.01	4.20	4.95	3.98	4.77	3.95	3.37	3.31	3.18	3.03	2.89	2.85	2.75	2.70	2.62	2.56
Romania	3.99	4.29	6.20	4.23	4.20	3.21	2.79	2.72	2.72	2.69	2.60	2.10	2.06	2.08

Source: Own computation based on Eurostat data.

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10. CROISSANCE ÉCONOMIQUE, ENVIRONNEMENT ET INSTRUMENTS D'HARMONISATION*

10.1. Considérations générales

Si beaucoup d'autres domaines de la science économique ayant des traditions dans la recherche peuvent être caractérisés par certains modes dominants de traiter et d'interpréter les phénomènes, et les relations économique-sociales, le domaine de l'économie de l'environnement et de ses rapports avec la croissance économique ne s'est pas encore différencié en tant qu'objet d'étude bien défini, fondé sur une conception unitaire de l'analyse des phénomènes, des catégories et des relations à caractère de loi, accompagnés de définitions, rapports, classifications et méthodologies suffisamment élaborées. Toutefois, du point de vue de la manière générale d'aborder les problèmes, des sujets traités, des interprétations et des méthodologies utilisées, ainsi qu'en ce qui concerne l'orientation de la recherche et des conclusions établies jusqu'à présent, on peut considérer que trois courants principaux se sont formés, qui se confrontent ou se complètent réciproquement. Ces courants sont dominés, en général, par la vision de trois professions : a) celle *des écologues* qui, d'une manière générale, s'appuyant sur des études amples et concrètes des faits et des phénomènes sont en faveur de la conservation du milieu naturel, leur solution principale étant bien souvent le ralentissement, ou l'arrêt de la croissance économique; b) *des économistes* qui, se fondant sur les recherches concrètes des écologues, ainsi que sur certaines études propres, soulignent la compatibilité de la croissance économique et la conservation de l'environnement, et cherchent non seulement les explications, mais aussi les mécanismes économiques et sociaux requis par une harmonisation; c) *des mathématiciens*, qui d'habitude, en prenant comme point de départ des hypothèses et des concepts élaborés soit par les écologues soit par les économistes construisent des modèles afin de mieux dégager et clarifier certaines interdépendances des variables et pour établir les tendances, y compris celles permettant des prognoses.

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Ce domaine, plus que tout autre, a besoin d'une recherche systémique interdisciplinaire et transdisciplinaire, dans laquelle des économistes et des techniciens de diverses branches et de diverses spécialités aient dans une plus grande mesure leur mot à dire. Ceci nous semble très nécessaire, vu le retard de pareilles recherches théoriques et applicatives par rapport à l'évolution rapide des phénomènes et l'accroissement des effets négatifs sur la qualité de la vie, ainsi que la complexité particulière des problèmes de la pollution, l'évolution quantitative et qualitative des facteurs du milieu, leurs relations avec la croissance économique et démographique, le rôle de la recherche et des facteurs technologiques dans la croissance économique et dans le maintien et la protection des facteurs de l'environnement, etc. Si des progrès plus importants n'ont pas été obtenus jusqu'à présent dans l'élucidation théorique et la présentation correcte de ces problèmes, une explication réside entre autres dans les approches sectaires dans la plupart des cas et bien rarement interdisciplinaires. D'autre part, le nombre des économistes qui ont participé aux études de cette dernière catégorie a été très réduit et la plupart d'entre eux n'avaient pas une vision claire et assez correcte sur la spécificité des lois de l'évolution à long terme des phénomènes économique-sociaux (inflexions, évolutions, involutions et transformations qualitatives, etc.) sur les possibilités étendues de la société humaine et sur la nécessité d'utiliser de manière consciente les mécanismes de réglage de ces processus.

Naturellement, la problématique du sujet soumis à la discussion, surtout dans son approche multidisciplinaire et transdisciplinaire, est trop vaste pour être analysée dans un rapport de dimensions tellement modestes, alors qu'un ouvrage très volumineux n'y suffisait pas. C'est pourquoi dans ce qui suit nous allons évoquer tout simplement quelques questions de principe : la nécessité de la croissance économique, l'intégration de l'étude de l'environnement dans celle des processus économique-sociaux dans les conditions de l'utilisation de certains instruments de réglage, avec l'espoir de déterminer un échange utile d'opinions avec nos hôtes qui ont acquis une grande expérience dans les recherches approfondies et de grandes dimensions dans divers domaines de la science économique.

10.2. La nécessité de la croissance économique

Selon l'opinion de certains écologistes, l'impératif de la défense de l'environnement impose l'arrêt de la croissance économique comme une condition de la survie biologique. Mais de l'avis de beaucoup

d'économistes, l'impératif socio-économique oblige, au contraire, à la continuation de la croissance comme un problème de survivance sociale. Si les deux catégories posent des conditions nécessaires, elles ne sont pas suffisantes: les premiers se référant à la nécessité de protection et de restauration des écosystèmes et les seconds à la nécessité du progrès social et de la stabilité économique dans le présent et dans le futur [14].

Souvent, des savants qui travaillent dans les sciences de la nature, invitent les économistes à une révision de leur attitude en général favorable à la croissance économique. Ils considèrent en effet, qu'il y a une liaison très étroite entre la croissance économique telle qu'elle est exprimée par certains indicateurs synthétiques comme, par exemple, le produit national brut (PNB) ou le produit interne brut (PIB) et l'évolution de la situation écologique (qualité des facteurs de l'environnement, pollution, etc.) désignée par le terme d'évolution de la sollicitation écologique [2], [21]. Sans procéder à une analyse de fond et sans expliquer le processus et les mécanismes économique-sociaux, on établit souvent une relation fonctionnelle générale quantitative entre la sollicitation écologique Y_t et, la croissance économique X_t , c'est-à-dire $Y_t = f(X_t)$. En simplifiant trop les choses on exprime d'habitude le raisonnement suivant : pour arrêter ou modérer la sollicitation écologique (Y_t) il faut freiner ou arrêter la croissance économique [9], [10], [20].

Il est évident que les choses sont à tel point simplifiées qu'une conclusion si catégorique ne saurait être acceptée. L'évolution de la vie économique-sociale ne peut être interprétée en termes physiques et uniquement quantitatifs ou seulement dans des termes de relations linéaires, univoques, déterministes [12]. Sur cette seule relation et conclusion simplifiée on peut faire au moins quatre remarques importantes :

a) La croissance économique exprimée par l'évolution du PNB ou du PIB, etc. n'est pas un but final mais seulement un moyen, un instrument

Le but final de la, croissance sociale et, en général, de toute l'activité socio-économique est le relèvement du niveau de vie (matérielle et culturelle) de la population. Dans la construction des modèles de la croissance économique, selon les définitions de la « welfare economics », dans la fonction sociale du bien-être matériel et culturel qui doit être maximisée ne sont pas comprises directement les quantités de marchandises et les services. Celles-ci, tout comme d'autres éléments qui influent sur la qualité de la vie (d'une manière positive ou négative) sont incluses dans la fonction du bien-être seulement par l'entremise de la fonction d'utilité. La caractéristique de cette fonction, en corrélation avec la croissance quantitative des biens et des services, est bien connue.

La science économique, étant une branche des sciences sociales, étudie l'influence des phénomènes ayant trait à la vie et l'activité humaine, et non pas à la vie naturelle ou biologique. Cette dernière n'est étudiée dans le contexte social que dans la mesure où elle affecte l'homme ou apporte des avantages ou des préjudices à l'homme ou à la vie sociale dans le présent ou à l'avenir. Naturellement, la pollution, l'épuisement de certaines ressources minérales classiques, etc. font l'objet de l'étude de la science économique non pas sous l'aspect de leurs propriétés physiques ou technologiques ou dans le cadre de leurs relations dans la nature, mais sous l'angle de leur valeur et des conséquences économique-sociales et de leurs influences sur certains indicateurs micro- et macroéconomiques (PNB, PIB, investissements, etc.) et, en dernière analyse, sur la fonction d'utilité qui définit la qualité même de la vie.

b) La croissance économique exprimée par les indicateurs synthétiques, du type PNB ou PIB constitue une source importante de l'accroissement du bien-être individuel et social de la population, malgré l'augmentation de la cote des dépenses pour la conservation de l'environnement

Selon les estimations de l'OCDE, les dépenses totales (publiques et privées) prévues pour la défense du milieu représentent pour certains pays les pourcentages ci-après dans le produit national brut :

	1970	1971-1975
Japon	1,5 *	2,5
R. F. d'Allemagne	1,4	1,8
Etats-Unis	1,0	2,2**

* 1971; ** 1970-1980

** Source: G. Bertolini, *La pollution: un problème d'avenir*, dans « *Analyse et prévision* », 4-6, 1974, p. 480

D'après les données du premier rapport du Groupe de Rome, aux Etats-Unis les dépenses pour la protection de l'environnement ont été de 105 milliards de dollars pendant la période 1970-1975, ce qui représente moins de 2 % du PNB. A Londres, le coût d'une réduction substantielle des gaz qui se trouvent dans l'air a été estimé à \$ 0,15 seulement par an et par habitant. En Roumanie, les dépenses totales pour la préservation de l'environnement au cours du quinquennat actuel (1976-1980) sont prévues à plus de 40 milliards de lei, ce qui représente plus de 11 % du revenu national réalisé en 1975 ou environ 6,6 % du revenu planifié pour 1980. Ces dépenses toujours croissantes englobées dans le revenu national sous différentes formes (moyens d'investissement; de recherche, etc.)

contribuent dans une certaine mesure à grossir cet indicateur synthétique d'une quote-part qui ne se retrouve pas dans des produits ou services destinés à la consommation improductive et, par conséquent, sous cet aspect elles diminuent le relèvement du bien-être matériel de la population. Mais même dans ces conditions, la croissance économique offre de grandes possibilités pour élever le niveau de vie de la population, surtout dans les pays en voie de développement. Dans ce contexte, il serait correct que le problème soit posé dans les termes du calcul marginal d'efficience: par la comparaison de l'accroissement des avantages avec les coûts. En réalité, comme le montre W. Heller, il s'agit d'une balance entre la nature et l'homme, entre l'environnement et la croissance économique, entre la technologie et l'écologie [14]. La solution juste est d'accepter la croissance qui offre des avantages supplémentaires nets pour l'homme et la société, c'est-à-dire jusqu'au point où la différence entre les avantages de la croissance économique et le coût de la réduction de la pollution, y compris la protection de l'environnement devient nulle, donc jusqu'au point où les dépenses pour la protection du milieu n'apportent plus directement ou indirectement un surplus de biens, services, etc., pour rehausser la qualité de la vie. Il ne s'agit donc pas de maximaliser la protection de l'environnement, mais de trouver un niveau optimum des effets dans l'intérêt de l'homme et de la société dans la comparaison entre la protection de l'environnement et la croissance économique. Mais à une différence nulle entre avantages et coûts, on n'arriverait dans un avenir prévisible qu'au seul cas où les technologies industrielles ne changeraient pas ou leur progrès serait plus lent que le rythme de la détérioration de l'environnement. Toutefois, les recherches empiriques effectuées dans beaucoup de pays, ainsi qu'en Roumanie, relèvent les progrès de plus en plus importants qui sont réalisés dans l'amélioration et les modifications des technologies pour éliminer la pollution et qui ont d'importants effets positifs, grâce à la valorisation supplémentaire de ressources inutilisées ou perdues, autrefois nocives [22], [23] par des substitutions de ressources (matières premières, combustibles) et par la mise dans le circuit économique de nouvelles ressources plus efficaces et moins polluantes. On estime que la situation actuelle, en ce qui concerne la pénurie de certaines ressources et l'état aggravé de pollution dans certains pays sont dus à une négligence prolongée de ces problèmes importants, par l'ignorance ou l'insuffisance des mécanismes économiques constitués historiquement et utilisés pour obtenir de grands profits immédiats, sans tenir compte des intérêts généraux et de longue durée de la société.

c) Le plaidoyer en faveur de l'arrêt de la croissance économique, surtout au niveau mondial ou régional, ne peut avoir aucune justification, aussi longtemps que sur de vastes régions du globe et dans beaucoup de pays, il y aura des retards considérables en ce qui concerne le niveau de développement économique, technologique et scientifique et de grandes différences en ce qui concerne l'intensité de la relation fonctionnelle entre la sollicitation écologique et la croissance économique.

En étudiant avec attention le tableau du développement économique mondial selon différents critères - le revenu national, PNB ou PIB par habitant, les rythmes annuels de croissance, la structure par branches et par technologies, la structure de la population occupée, etc. - on constate l'existence de grandes disparités : un nombre important de pays se trouvent au stade primaire (prémoderne), ayant un niveau de développement économique et social très bas; il y a ensuite un autre groupe de pays qui se trouvent au stade secondaire (moderne), au niveau du revenu national par habitant plus élevé et dans lesquels la contribution de l'industrie à la croissance du revenu national est prédominante; enfin, un nombre relativement restreint de pays qui se trouvent au stade tertiaire et dont la caractéristique principale consiste dans le poids élevé (50 % - 60 %) des activités de la sphère des services dans la création du revenu national, et dans un haut niveau du développement économique et technologique. Les comparaisons en ce qui concerne le revenu national par habitant dans les pays pauvres et les pays les plus développés mettent en lumière des rapports de presque 1 : 100. Si pour la population de beaucoup de pays pauvres, le problème qui se pose est celui d'un minimum nécessaire pour la vie, pour les pays les plus développés on parle d'un état d'abondance et de saturation, non seulement pour les biens de première nécessité, mais aussi pour beaucoup d'autres catégories de biens de longue durée, et parfois d'un trop grand nombre de biens sans utilité dépassant de beaucoup les besoins d'une vie aisée, ou même de biens en excès, nuisibles à la santé, ce qui entraîne un grand gaspillage de ressources et un rythme élevé de détérioration de l'environnement. Au plan théorique, on peut constater que tandis que dans les pays pauvres l'utilité marginale des biens élémentaires pour l'existence s'accroît dans les pays riches l'utilité marginale de certains produits décroît ou devient même négative.

Selon certaines estimations, un habitant à revenu moyen d'un pays développé, comme par exemple les Etats-Unis, comparé à un habitant à revenu moyen d'un pays sous-développé d'Afrique, provoque un taux d'exploitation des écosystèmes de la planète, d'environ 100 fois plus élevé [9] que ce dernier et déverse dans la nature des résidus polluants en proportion encore plus grande. En effet, certains pays développés

accélèrent le processus du déséquilibre ou même de la destruction, non pas seulement de leurs propres systèmes écologiques (puisque les mécanismes économiques n'agissent pas encore assez promptement et de manière assez active pour pouvoir les éviter ou les contrecarrer), mais aussi des écosystèmes de certains pays en voie de développement, et cela par deux voies principales: la première consiste dans la tendance de certains pays développés d'implanter leurs investissements dans les branches non-polluantes dans leur propre pays et ceux dans des branches fortement polluantes dans les pays en voie de développement, ne faisant aucun effort pour utiliser des technologies non-polluantes. Un exemple typique à cet égard est offert par le Japon. La seconde voie consiste dans la consommation des quantités massives de matières premières importées des pays en voie de développement. Les données de 1972 montrant les proportions dans les quelles les ressources énergétiques et les matières premières des pays en voie de développement sont destinées à l'exportation pour la consommation des pays développés, en sont illustratives: ressources énergétiques primaires - 96 %, minerai de fer - 66%, bauxite - 73 %, cuivre - 83 %, plomb - 51 %, nicke1 - 86 %, étain - 83 %, zinc - 57 % [16]. L'erreur de vouloir freiner ou même arrêter la croissance économique, avec ses conséquences nuisibles pour les pays pauvres et avantageuses pour les pays riches, apparaît clairement, nous semble-t-il, de ce que nous venons de montrer.

d) Le problème essentiel est de ne pas freiner la croissance économique, surtout dans les pays en voie de développement, mais d'élaborer et de mettre en œuvre des instruments de réglage efficaces, capables d'harmoniser les besoins objectifs de la croissance économique avec ceux de la protection de l'environnement par la gestion et l'allocation rationnelles des ressources et l'amélioration de conditions de l'environnement.

En ce qui concerne cette relation fonctionnelle, il est question, donc, d'agir sur la fonction, f, par toute une série d'instruments économiques et politiques. W. Beckerman a souligné d'ailleurs que le conflit entre la croissance et l'environnement ne réside nullement dans le problème de la croissance mais dans l'allocation des ressources entre les formes alternatives de la croissance à n'importe quel moment [2]. Il s'agit en l'occurrence de l'absence de mesures économiques restrictives, comme par exemple des prix plus élevés pour consommation des ressources, ou des taxes progressives pour la pollution du milieu naturel et social, ainsi que d'autres instruments, de la même nature dirigées contre les consommateurs de ressources et ceux qui polluent les facteurs du milieu

naturel en affectant la santé de l'homme sans en supporter les conséquences. Dans ce problème, l'économiste a au moins les obligations suivantes: en premier lieu, il doit expliquer la genèse de l'opposition entre l'optimum au niveau microéconomique (partiel) qui n'inclut pas le problème de l'environnement et l'optimum macroéconomique et social (total) dans lequel le problème de l'environnement occupe une place importante.

Dans les conditions de la propriété socialiste, grâce à l'application dans l'entreprise du principe de la gestion autonome, l'optimum local ne se confond pas avec l'optimum total et, par conséquent, la liaison entre l'optimum des deux niveaux ne s'effectue pas automatiquement. Les économistes sont ceux qui dans ce cas doivent trouver les solutions nécessaires pour que les entreprises, lorsqu'elles maximisent leurs propres bénéfices, tiennent compte dans leurs calculs, afin de les supporter, les dommages causés à la société par la dégradation ou la pollution des facteurs de l'environnement; en second lieu, l'économiste est appelé à calculer les dommages présents et futurs provoqués tant par la pollution que par une utilisation de taux élevés de consommation des ressources et, sur cette base, à établir un système des prix et des taxes assez efficace, accompagné de certaines mesures prohibitives, d'un système institutionnel et de contrôle approprié.

10.3. La nécessité d'intégrer l'environnement dans l'ensemble des processus économique - sociaux

Le besoin d'analyser les relations en valeur entre l'entreprise et l'économie nationale se fait sentir toujours davantage. Ces relations se caractérisent par une interdépendance étroite, mais cette interdépendance n'est pas toujours correctement reflétée par ces indicateurs ou par les décisions locales, de manière à ce qu'ils concordent avec l'intérêt général de la société. Aussi, le besoin est-il apparu de créer et d'adopter le concept *d'effets extérieurs* pouvant aider, sur le plan théorique et grâce à des mesures de politique économique, à réaliser cette relation par l'«internalisation» dans l'entreprise de leurs effets extérieurs dénommés « externalités ». D'ailleurs, l'on apprécie parfois que la théorie microéconomique ne dispose aujourd'hui pratiquement que de la théorie des facteurs extérieurs, à l'aide de laquelle on établit la relation entre facteurs microéconomiques et macroéconomiques [4], [13]. Le besoin d'utiliser ce concept s'est fait sentir aussi dans le domaine de l'économie de l'environnement, parce que plus que dans d'autres domaines, les effets négatifs causés par l'entreprise à l'économie nationale ou à la société par la

dégradation des facteurs du milieu naturel ou par la pollution ne se reflètent pas dans les coûts de l'entreprise. Le problème qui se pose est d'« internaliser » les effets « extérieurs » négatifs produits par une entreprise, soit au détriment d'une autre unité économique-sociale, soit au détriment de la société. Il s'agit donc d'élever le coût individuel (local) au niveau du coût social, en ajoutant au coût local un montant additionnel équivalent de la valeur des dommages sociaux produits par l'entreprise en question. De cette manière, on peut établir correctement la relation entre le niveau des coûts locaux et le niveau des coûts sociaux par l'entremise d'un système de taxes, tarifs, prix, bien que dans la pratique de nombreux problèmes difficiles apparaissent, tels que: déterminer des effets causés par chaque unité économique-sociale, établir la dimension des dépenses en vue de la dépollution jusqu'au niveau nécessaire (optimum), etc.

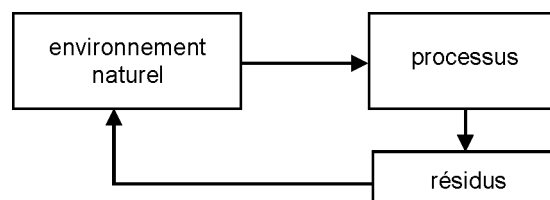
Ce système d'intégration de l'environnement au moyen de l'internalisation des effets extérieurs soulève des critiques. On lui reproche, par exemple, qu'il ne reflète que des processus trop restreints, à savoir, ceux qui se réfèrent uniquement à l'aspect des relations monétaires de l'entreprise. Toutefois, bien que ce système ait un caractère relativement restreint, il est néanmoins important pour des conclusions et des mesures de politique économique. C'est pourquoi il devrait être étudié et amélioré dans le but d'intéresser et d'entraîner les unités économiques dans des actions efficaces de protection de l'environnement. On pourrait de la sorte améliorer le système de motivation et d'orientation des décisions locales vers les intérêts sociaux généraux.

Au plan théorique cette méthode appartient à l'analyse de l'équilibre partiel avec ses mérites et limites connues. C'est ainsi que, bien que convenable du point de vue théorique et empirique parce qu'elle offre la possibilité de définir pour chaque cas séparément tant les dommages causés, que les fonctions des coûts pour le contrôle de l'environnement, sans référence aux interrelations et mesures pour l'économie dans son ensemble [1, p. 295], cette manière d'aborder et de traiter le problème porte parfois les marques de l'opinion qui persiste encore dans la théorie économique et dans les politiques économiques de certains pays, selon laquelle les problèmes de la pollution tout comme ceux de l'environnement ont un caractère plutôt local et mineur par rapport à d'autres processus et phénomènes économiques. Il en résulte que l'on considère qu'il suffit de les traiter au niveau microéconomique comme externalités. A notre avis, cette attitude impose la nécessité d'intégrer d'une manière organique les problèmes de l'environnement, tant dans la théorie que dans la pratique macroéconomique générale.

En analysant les choses dans ce contexte, une remarque s'impose: les sciences économiques, dont l'objet est d'étudier les phénomènes socio-économiques réels dans toute leur complexité devraient dépasser les frontières de leur domaine établies par la tradition dans le cadre des extrêmes constitués par la production et la consommation. Elles devraient réunir les processus partiels, en tant que domaines spéciaux d'étude, dans des processus plus larges, plus généraux, soit par des opérations d'assemblage ou articulation, soit par la mise en lumière des relations qui s'établissent à l'interférence des domaines. Si l'on accepte la convention « là où il n'y a pas de frontière, il n'y a pas de processus » [12, pag. 214], il s'ensuit qu'il faut, d'une part, tracer ces frontières et, d'autre part, étudier, d'une manière systématique non seulement les processus qui ont lieu au dedans des frontières, mais également les éléments qui traversent systématiquement ces frontières.

Dans la recherche économique traditionnelle, comme nous l'avons déjà relevé, les processus économique-sociaux ont été considérés uniquement comme des flux circulaires à l'intérieur des frontières [[production] \longleftrightarrow [consommation]], sans faire ressortir les rapports étroits et systématiques avec les processus qui ont lieu au-delà de ces frontières, dans notre cas avec l'environnement. En partant du concept sur l'échange permanent qui se produit entre l'homme et la nature dans le processus du travail, N. Georgescu-Roegen fait le raisonnement suivant: tout élément qui passe la frontière entre l'environnement et le processus de production* est un input, et tout élément qui passe dans la direction opposée est un output [12, p. 215], se référant donc à l'échange systématique entre les deux sphères [environnement] \longleftrightarrow [processus]. C'est ainsi que dans les processus de production, de reproduction, d'échange et de consommation englobés dans la notion générale de processus on utilise comme input des ressources naturelles (produits de la photosynthèse et minéraux), la consommation desquelles produit comme output des résidus (waste) dans des quantités conformes au principe de l'équilibre matériel selon la loi de la conservation de la matière (input = output).

* Dans ce contexte, N. Georgescu-Roegen donne à la notion de processus un sens plus large que celui de processus de production.



L'idée d'étudier les facteurs naturels de la production du type des ressources, ainsi que les résidus et, en général, l'insertion du flux matériel général n'est pas acceptée par certains économistes [12, p. 232], parce que de tels aspects de l'environnement ne seraient pas d'essence économique-sociale et, par conséquent, serait un objet d'étude des sciences de la nature. Ces économistes auraient raison seulement dans les cas où les phénomènes respectifs seraient étudiés en soi. Mais puisque leur étude relève que les flux de ressources et résidus polluants affectent directement et indirectement les flux et les activités économique-sociaux, donc les intérêts économiques et sociaux présents et futurs de l'homme, il est évident que ces flux matériels doivent former l'objet d'étude et d'analyse des sciences économiques. En effet, la détérioration de l'environnement engendrée par les actions de l'homme, comme conséquence de la modification de certains processus naturels par l'exploitation forcée et incontrôlée de certaines ressources et par le rejet également incontrôlé de résidus polluants en grande quantité, ont des effets négatifs sur les conditions naturelles et donc sur les conditions de la vie humaine. Mais, pour déceler et évaluer, d'une part, la mesure dans laquelle les activités humaines influent sur l'environnement et, d'autre part, le degré où les activités humaines dépendent de l'environnement, en d'autres termes, pour «trouver les directions dans lesquelles chaque partie dépend du reste » [6, p. 113], une étude à caractère systémique est nécessaire, qui prenne en considération les influences positives et négatives de la chaîne des flux matériels tout au long des processus économique-sociaux pendant une certaine période et en perspective, avec des déterminations quantitatives (physiques et de valeur) de ces flux et de leurs effets.

C'est de cette manière qu'on peut élargir l'horizon de la recherche à la frontière entre l'évolution de l'environnement et celle de l'économie, et rendre ainsi possible l'élucidation de certaines interdépendances et chaînes de causalité des déséquilibres écologiques et de l'influence de l'évacuation dans la nature des résidus polluants sur les processus économique-sociaux,

ainsi que de nouvelles méthodes d'aborder les problèmes dans la recherche économique et dans les mesures de politique économique.

Parmi les conclusions fondamentales qui découlent de l'analyse des flux matériels qui accompagnent les processus économiques on devrait, à notre opinion, retenir les suivantes:

a) Le rythme de la croissance des quantités de ressources requises par le développement économique a comme limite relative le volume des gisements de minerais irrenouvelables et la capacité des écosystèmes de produire des ressources renouvelables, ce qui impose l'accroissement de l'efficacité de leur utilisation dans tous les processus par leur allocation rationnelle, l'application des technologies qui économisent les ressources, le remplacement des ressources déficitaires par d'autres plus abondantes, l'augmentation de la durée d'utilisation des produits, etc.

b) La production de résidus étant inhérente à tous les processus économiques à partir de l'extraction des ressources naturelles jusqu'à la consommation finale, il est possible d'établir des projections plus correctes et plus étendues de l'évolution des quantités de résidus rejetés dans la nature.

c) L'estimation quantitative de tous les éléments qui entrent dans les flux doit, en premier lieu, être accompagnée de leur expression monétaire et doit également faire l'objet des calculs et des considérations de gestion économique, au profit d'une bonne administration des ressources et de l'environnement dans tous les processus économique-sociaux.

En ce qui concerne le dernier point on doit relever que jusqu'à présent, dans la plupart des pays, la Roumanie comprise, ce n'est que pour une partie du flux de matériels provenant de l'environnement et y retournant qu'une estimation monétaire est effectuée et fait l'objet des calculs d'une bonne gestion économique. C'est notamment le cas des matières premières et des combustibles évalués aux coûts afférents aux recherches et exploitations géologiques et à l'extraction, et pour les terrains agricoles qui sont soumis à des taxes annuelles pour leur usage par les entreprises industrielles et à une somme initiale fixe prise en considération dans les calculs pour déterminer l'efficacité économique de l'investissement requis par l'objectif respectif. Dans le même temps, des éléments importants des flux de matériels ayant une influence notable sur les processus et les écosystèmes ne sont dans presque aucun pays pris en considération, en ce qui concerne leur évaluation monétaire, et n'entrent pas dans les calculs et les mesures pratiques de la gestion économique. C'est le cas de l'utilisation des ressources d'eau et d'air, de l'utilisation de la capacité de l'environnement (sol, eau, air), de l'assimilation des résidus polluants ainsi

que de la capacité des processus de production d'utiliser comme input divers matériels polluants [1, p. 291].

Ce n'est que par une approche globale et systémique au niveau macroéconomique et par une modélisation adéquate des flux de tous les processus, tout en utilisant certains instruments de réglage, qu'on peut aboutir à une conception unitaire sur la gestion rationnelle des ressources et de l'environnement, adaptée aux exigences de la croissance économique et aux nécessités actuelles et futures de la société.

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11. ON THE DEVELOPMENT OF THE ENERGY SYSTEM AND ENERGY CONSERVATION*

The present energy situation and its effects on the economic and social life are most persistently analysed and discussed in the economic literature not because economists are eager to deal with subjects in vogue, but because the economies of many countries have been confronted with particularly serious problems following the outbreak of the energy crisis.

This study outlines some distinctive features of the period of transition to new energy structures, the ways in which Romania's energy system is being restructured in the context of a rational, efficient use of the national resources, energy conservation by saving and by improving the structure of production and the methods used to assess and analyse the efficiency of energy conservation measures¹.

11.1. The problem of transition to new energy structures

Modern society with its huge, rapidly developing production and technological machinery cannot carry on its activity unless it has corresponding energy system. The question which has naturally arisen under the circumstances is whether the earth's energy resources, which are mostly non-renewable and on which almost the whole present technological structure is built, will meet in the long run the constantly growing demands.

And the answers to this question are hardly promising. This is due mainly to the fact that everybody, almost without exception, is squandering this invaluable wealth as a result of the false picture of inexhaustible energy

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¹This paper comprises some results which I have obtained by research work carried out in recent years at the Central Institute for Economic Research - Bucharest. At this Institute several problems have or are being investigated, such as: energy consumption and production structure; the determination of total energy consumption and of net energy; projection of production costs in the mining industry; economic implications of enhancing the final oil recovery factor, the coal reserves recovery degree and of increasing energy yields, energy conversion and industrial energy consumption; determination of energy conservation economic efficiency; world energy prices ; economic problems of new energy sources.

resources which for a long time², now we have liked to create and retain, and of the very low cost of energy. Despite soaring energy prices in the past decade, the general mood of energy wastage is still prevalent. It cannot change so very rapidly, given the existing technological scaffolding based on high consumptions of exhaustible energy sources, the continuing use of production methods with a low recovery factor, and economic and financial mechanisms tolerating a certain degree of waste or even encouraging it³.

It is obvious that changes are necessary in this field, for the period of plenty is ending and the period of decline of conventional fuel reserves and rising costs is facing us. Mankind has been taken by surprise and it is not prepared to enter the period of transition to new energy structures, which call for great and long research efforts to develop new technologies and for considerable material and financial efforts to build new energy systems⁴. That is why the energy system is at the most critical point in its history, with often - painful economic and social consequences for many peoples, and in particular for the developing countries that lack energy resources and have no financial resources to pay for fuel imports⁵.

Practically, all countries have responded to the energy crisis in one way or another, defining their energy policy and taking steps to prevent negative effects on their national economy and to adjust their economic structure to the new situation. But, for various reasons, in many instances the envisaged measures have not been implemented. Still, their general aim was generous, for they were intended to help improve the energy situation at national level and, implicitly, in the world.

² N.Georgescu-Roegen, *Energy and Economic Myths*, New York, Pergamon Press, 1976; D. Meadows (e.a.), *The Limits to Growth*, New York, Universe Books, 1972, M. Mesarovič and E. Pestel, *Mankind at the Turning Point*, New York, E. P. Dutton, 1974; D. Gabor and U. Colombo, *Beyond the Age of Waste*, New York, Pergamon Press, 1978; A. Iancu, *Creșterea economică și resursele naturale* (Economic Growth and Natural Resources), Bucharest, Ed. politică, 1976; P. R. Ehrlich and A. H. Ehrlich, *Population, Resources, Environment*, San Francisco, W. H. Freeman, 1972.

³ D.Gabor and U.Colombo, *op. cit.*; N. Georgescu-Roegen, *The Entropy Law and the Economic Process*, Harvard University Press, Cambridge, Mass., 1971 ; R. M. Solow, *The Economics of Resources and the Resources of Economics*, "The American Economic Review", May 1974.

⁴ D.Gabor and U.Colombo, *op. cit.*; M. Mesarovič and E. Pestel, *op. cit.*; W. Sassin and W. Hafele, *Energy and Future Economic Association*, Tokyo, 29 August-3 September 1977; B. Fritsch, *The Zencap-Project. Future Capital Requirement of Alternative Energy Strategies. Global Perspectives*, Fifth World Congress of the International Economic Association, Tokyo, 29 August - 3 September 1977.

⁵ M. Mesarovič and E. Pestel, *op. cit.*; I.M.F. Survey, 17 September 1979.

11.2. The economic growth energy consumption relationship in Romania

Due to her economic situation, to the results obtained so far, and the overall energy system restructuring programme, Romania has formulated a vast programme for adjusting the energy system to the new conditions of economic growth*. While during the first stages of economic growth the energy consumption recorded a substantial increase, since the '70s and especially 1974 - the first year of the energy crisis - the increase in the energy consumption has been completely reconsidered, and some results obtained by enforcing this energy policy of Romania are shown in Table 1.

Table 1

Average annual growth rate of national income and of energy consumption and energy consumption elasticity

	1961-	1971-	1974	1975	1976	1977	1978
	1970	1973	1973	1974	1975	1976	1977
National income	8.4	11.2	12.0	10.0	11.0	9.0	8.0
Energy consumption	9.5	6.3	0.34	8.28	7.43	2.36	-0.89
Electricity consumption	16.2	10.0	8.30	11.06	11.71	5.57	5.86
Energy consumption elasticity (2:1)	1.13	0.56	0.03	0.83	0.67	00.26	-0.11
Electricity consumption elasticity (3:1)	1.93	0.89	0.69	1.10	1.06	0.62	0.73

Source: *Statistical Yearbook of Romania, 1979*; UN, *Energy Supplies 1950-1975*, New York, 1976; UN, *Energy Supplies 1965-1978*, New York, 1978.

The elasticity coefficients of energy consumption relative to national income began to decrease in the early 70s. They diminished more rapidly after 1973 as a result of strict measures of energy conservation and more efficient use.

Important objectives set in Romania's programmes of long-term economic and social development are the creation of conditions for her to become an economically medium-developed country in the current decade and the achievement of self-sufficiency in energy and fuel. In keeping with the economic and social development programme for 1981-1985, the

* M.Florescu, *The Energy Programme of the Socialist Republic of Romania*, Editura Politică, 1980.

average annual growth rate of the national income will be 6.7 – 7.4% and that of gross industrial output 9 - 10%. Romania's dynamic development will result in a more than two-fold increase of her national income in 1981-1990, which will place her on a level with some medium-developed countries⁶. Further high-rate economic growth can no longer be based on equally high production and energy consumption rates. It demands greater efforts for a structural change in the national energy system, in keeping with the possibilities and needs of Romania's economy, and for energy conservation.

Despite some changes in the structure of the energy balance over the past ten years, with a certain increase in fuel imports, natural gas still accounted for most of the primary energy, i.e. 50 per cent, while oil for 25 per cent. Given the amount and structure of existing fuel reserves and the requirements of the Romanian economy, new, urgent problems have cropped up and they must be solved. In Romania's new stage of economic development, particular emphasis is placed on the rational management of reserves and a greater efficiency of the use of resources. These are the aims of the measures included in the Programme-Directive of Energy Research and Development in order to augment the final oil recovery factor, enhance the mining of coal reserves and change the structure of the energy system, where alternative energy sources and energy conservation must play a growing role. Many theoretical and methodological questions bearing on the economic policy are raised by the new energy situation.

11.3. Some theoretical and economic policy problems on the use of energy resources

Preserving reserves by an equitable distribution among generations of our limited energy dowry is a fundamental problem. And it has become urgent now when the general requirements for economic growth speed up the depletion of certain fuels, thus creating conditions for mankind's natural treasure-store to be consumed by the present generations to the detriment of future ones⁷. An equitable use of the energy stock by the succeeding

⁶ *Economia mondială - orizont 2000* (World Economy, Prospects for the year 2000), edited by Institutul Central de Cercetări Economice and Institutul de economie socialistă Bucharest, Ed. Academiei, 1980, p. 65.

⁷ N.Georgeseu-Roegen, *The Entropy Law and the Economic Process*, Cambridge, Mass., 1971; R. M.Solow, *The Economic of Resources or the Resources of Economics*, in "The American Economic Review", May 1974; W. Weisskopf, *Alienation and Economics*, New York, E.P. Dutton & Co. Inc., 1971; B. Commoner,

generations is possible in Romania and in other countries only if the following objectives of the energy programmes are attained: a) the conservation of energy reserves by turning useful elements to better account and lowering the demand for scarce fuels, for which purpose appropriate economic mechanisms and levers must be devised and applied; b) the promotion of a new ethics of energy conservation meeting the requirements for an economically, ecologically and morally optimum allocation of resources among the generations ; c) the concentration of the scientific and technological efforts of the present generation on the search and the breaking up of new ground for the solution of the energy problem beyond the limited range of conventional fuels, thus paving the way in time to a turning point in the substitution of exhaustible nonrenewable conventional energy sources for renewable non-conventional sources - solar energy, nuclear power produced by fusion, hydrogen and methanol obtained by efficient chemical processes from inexhaustible materials.

Another theoretical-methodological problem is the economic accessibility of available energy reserves⁸. Can the energy resources meet mankind's growing energy requirements? One cannot answer this question simply by Yes or No, or by taking into account exclusively the results of research into physical and technological phenomena and their interpretation. Being closely connected with human and economic interests and limitations, hence analysed and solved by people, natural phenomena, those related to energy in our case, also have a socio-economic dimension. Huge amounts of energy, of all forms and types, are available in nature and the economic processes. But most of it is of no value to mankind because it is not accessible, qualitatively inappropriate, in low concentration, supplied much too far from the place of use. To make available energy accessible, man must make efforts in the form of higher or lower energy expenditures to trap, transform and use energy for his useful purposes. Moreover, he must work to obtain a certain net amount of energy.

Hence, to transform available energy into accessible energy and to maintain the new system, man must spend, on the one hand, a certain amount of energy, and a certain amount of work from his total available work time, on the other.

To conform to the principle of efficiency, which is a fundamental principle of economic management, this expenditure must be compared

The Closing Circle, New York, Alfred A. Knoph, 1971.

⁸ At a real evaluation of potential energy resources, such interpretation becomes compulsory (see, for example, N. Georgescu-Roegen, *Energy and Economic Myths*, New York, Pergamon Press, Inc., 1976).

with the effects obtained, so that the latter should exceed the former in order to achieve net effects. The calculation must be done in terms of energy and of value⁹.

11.4. Efficiency in terms of energy

To make energy accessible, a certain amount of energy of the same type or of other types must be consumed. When the energy input for the maintenance and functioning of the system is smaller than the energy output supplied outside the system (net output), the efficiency of the conversion from available to accessible energy is secured and the so-called net energy output is achieved. For example, to obtain certain net energy output, the energy is consumed directly and as embodied into capital goods and the materials used, according to the following rough diagram (Fig. 1):

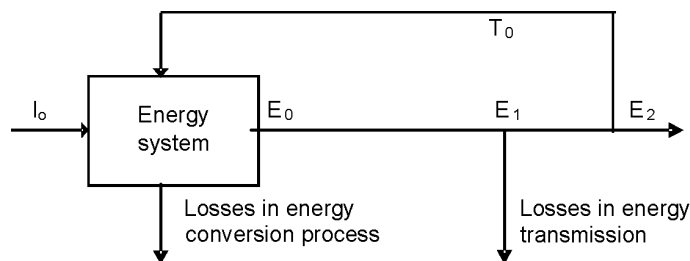


Fig. 1

⁹ The idea of determining the point where an available source can be turned into the accessible class/regarded as accessible was suggested to me by Georgescu-Roegen's book *Energy and Economic Myths* and by studies on the cost of energy for energy production, done at the Institute for Energy Analysis, Oak Ridge Associated Universities, USA, such as A.M. Perry, W.D. Devine and D.B. Reister, *The Energy Cost of Energy. Guidelines for Net Energy Analysis of Energy Supply Systems*, ORAU/IEA/R/-77-14 August 1977; A.M. Perry, W.D. Devine *e.a.*, *Net Energy Analysis of Five Energy Systems*, Institute for Energy Analysis, Oak Ridge Associated Universities, ORAU/IEA /R/- 77-12, 1977; Willem van Gool, *Constraints on Energy Conservation*, Institute for Energy Analysis, Oak Ridge Associated Universities, ORAU/IEA-78-17/M/; Willem van Gool, *Fundamental Aspects of Energy Conservation Policy*, Institute for Energy Analysis, Oak Ridge Associated Universities, ORAU/IEA-78-M/.

where:

I_0 - primary energy input;

T_0 - total energy, direct and embodied in capital goods and in the materials used in the system for its operation, for power/energy generation and supply to end users;

E_0 - energy output of the production system (after subtracting losses in the conversion process);

E_1 - net energy output of the production and transport system (after subtracting losses in conversion and transport);

E_2 - net energy output at end user (after subtracting losses in conversion and transport and consumption for system operation).

The amount of energy consumed to harness a given source or reserve must be smaller than the amount that can be obtained in the system. If it is not, the source is not accessible in terms of energy. For example, if the amount of energy consumed to produce hydrogen by water electrolysis is several times bigger than the energy equivalent of the hydrogen produced, the energy source is not competitive. It is available, but inaccessible. The principle of efficiency can only exceptionally be disregarded, that is in the case of a high-grade, irreplaceable fuel for certain petrochemical or even thermal processes. An excessive amount of energy in the form of abundant low-grade fuel may be consumed in such instances for the extraction, processing and conversion of non-substitutable high-grade fuel.

11.4.1. Efficiency in terms of value

To make accessible the amount of energy he needs and to use it properly, man spends a certain amount of work, either directly as live work, or indirectly as embodied work (raw materials, fixed assets, energy, etc.). Under the circumstances he must take care that the following condition be fulfilled: the quantity of work spent to make a certain amount of energy accessible must not exceed the quantity of work that is replaced or economized by using that amount of accessible energy in the economic process. If the quantity of work used to obtain accessible energy is larger than the quantity saved by using that energy in the economic process, the principle of economic efficiency is violated.

The relationship between energy - as a physical phenomenon - and the economy - as value relations - is revealed by prices. Prices are an important, irreplaceable instrument of detecting economic and social objectives when mapping out energy policy.

Comparative prices indicate the economically critical moment when a new energy source begins to be accessible, absolutely or in comparison to another source, or when it becomes profitable to replace scarce fuels by fuels which are not scarce but can only be produced in difficult technological and economic conditions. Prices thus become practical instruments of economic management, of orientation on the economic accessibility of energy sources and their mutual substitution. Nevertheless, under these circumstances, it is necessary that these prices should not be distorted by some interventions which can bring about some negative effects in the economic and social life. This matters also for the adjustment of economic structures which should be carried out according to the actual situation of resources, not according to artificial signs. It is such an argument that Lee Schipper considers when he expresses his disagreement with those interventions in the form of subsidies which isolate home prices from foreign ones. On the other hand, he advocates measures of income redistribution to protect the poor against rising prices¹⁰. Such measures would create favourable conditions following which economic structures could be adjusted in keeping with the actual evolution of resources, concurrently with the solution of social problems arising from the increasing fuel prices. Naturally, one problem in every economic system is to have a close relationship between the evolution of economic structures and the evolution of the situation of energy resources as expressed by prices. The domestic price system should not be left open to the random influences of world economy, yet it should not be fully closed either, for the evolution of the world market cannot be ignored.

From theoretical debates, as well as from the practice adopted in this field in Romania the following ways turned out to be rational: a) for current calculation needs the so-called normative assessment and analysis methods could be used to substantiate economic development plans, for new projects and the modernization of existing production units, the substitution of abundant resources for scarce resources and energy-non-intensive products for energy-intensive ones; b) for a normal running of the economic mechanism, world market increases in the prices of imported commodities must be gradually absorbed or assimilated into home prices. The home market should only be protected against sudden variations or rises in prices, not against their long-term evolution. If this is not done, prices lose their functions of means of economic calculation and of

¹⁰ Lee Schipper, *Another Look at Energy Conservation* "The American Economic Review", May 1979, p. 367.

economic lever that helps to use resources rationally and to increase the efficiency of their use.

Above, energy efficiency has been conventionally considered separately from economic efficiency. In fact, an analysis of the available to accessible transition of a resource can be regarded as real and complete only if energy efficiency and economic efficiency are determined and correlated.

The response to the consequences of the energy crisis and the intimated future gap between energy demand and supply should come not only from a restructuring of energy resources but also from energy conservation, in view of the marked present squandering of energy and of the generally higher potential efficiency of conservation compared with the production of energy from alternate sources¹¹.

With diminishing energy supply obtained with increasing difficulty from known resources, a decreasing demand (called conservation) would be one of the most efficient and handy solutions. Indeed, this is a good solution even for the countries that have energy reserves, including those where the substitution from alternative sources such as uranium / coal is being discussed. A substantial increase in the economic efficiency of the use of energy is therefore considered the major source of and decisive condition for the further development of the national economy. The whole energy system, i.e. production and consumption, offers important opportunities in this respect. According to estimates, the average index of primary energy consumption per industrial production unit will decrease 21-23 % between 1980 and 1985 and 40% up to 1990¹². These provision can be implemented in various ways. In the following, we shall consider some such ways and some of their methodological aspects.

11.5. Energy conservation through saving

An important way of energy conservation and increased efficiency of its utilization refers to the measures take in the technological field, by reducing specific consumptions, recuperating thermal energy and fuel

¹¹ Lee Schipper, *Another Look at Energy Conservation*, "The American Economic Review", May 1979, 0.362; G. N. Hatsopoulos, E. P. Gyftopoulos, R. W. Sant, T. F. Widmer, *Capital Investments to Save Energy*, "Harvard Business Review", March-April 1978.

¹² *Programul-Directivă de cercetare și dezvoltare în domeniul energiei în perioada 1981-1990 și orientările principale până în anul 2000* (Programme-Directive of Energy Research and Development in 1981-1990 and Guidelines up to the Year 2000), Bucharest, Ed. politică, 1979.

resources and their turning to good account, which makes for a reduction in the demand for primary energy.

11.5.1. Energy conservation potential determined by energy efficiency

There are vast possibilities of energy saving, especially in the industrial process whose energy needs account for more than 80 per cent of the overall energy consumption. The size of the theoretical energy saving potential by technological measures can be assessed by the difference between the way in which primary energy is actually used and the thermodynamic limit which indicates, from the technological point of view, the extent to which energy can be used. According to some computations, the degree of primary energy utilization, expressed by the overall yield for the whole economy, reaches up to 38-40 per cent of the total amount of energy introduced into the economic system, more than 60 per cent being lost, firstly, during the conversion of various forms of primary and intermediary energy into mechanical, thermal, chemical energy, etc. at low yield units and installations, and secondly, in the form of heat for economic processes¹³, especially due to the fact that, when designing and building the available technical means and technologies, the need for energy saving or its recuperation was overlooked, as energy was plentiful and at low prices. That being the case, energy losses were more profitable than the introduction of some technologies or the undertaking of some capital investments leading to energy savings.

Nowadays, when fuel prices have increased considerably it has become evident the need to find adequate solutions for increasing that part of the overall amount of energy which should be usefully utilized for the undertaking of some works or services. In other words, answers must be found to a maximum utilization of energy.

¹³ Heat accounts for some 70 per cent of Romania's useful energy requirements (N. Liciu, *Gospodărirea rațională a căldurii, sursă de economisire a energiei*. The Rational Management of Heat, a Means of Energy Saving, "Revista economică" No. 44. Nov. 1979, p. 6). As far as the U. S. industry is concerned, thermal energy accounts for approx.70 per cent of the overall energy consumption (Sara Wood Boercker, *Characterization of Industrial Process Energy Services*, Institute for Energy Analysis, Oak Ridge Associated, University ORAU-70-9/R/, 1979, p. IV). Heat losses occur by radiation, burnt gases discharged into the atmosphere, waters used for cooling thermoenergetic installations and disposed of or artificially cooled and reused, by products, leftovers and waste discharged hot from the production processes, a.s.o.

The question is whether the solutions of making complete use of energy, that is as far as the threshold when energy loses its qualities of performing a useful work, therefore as far as the thermodynamic limit, must also be accepted. The implementation of the measures for energy recuperation calls for capital investments and current expenditures with exponential increments for steady increases in energy savings. Hence, the thermodynamic limit must be supplemented by the economic limit, the latter being a criterion which eliminates these recuperation procedures which are too costly compared with the results. As far back as several decades ago, in Romanian economic practice several preoccupations existed concerning the better utilization of energy. A case in point is the extensive use made of the simultaneous production of electrical and thermal energy, which has already proved to be, economically, far more advantageous than the system of separate generation of the two forms of energy¹⁴.

The measures initiated since 1960 for the recuperation of secondary energy are also in line with the main drive for a better utilization of energy. These measures have been greatly extended at the beginning of 1973 when enterprises started on taking stock, within their energy balance sheets, of all secondary resources with a view to their recuperation and turning to good use. The assessment of the economic efficiency by using the price of marginal fuel (imported crude oil) has given an opportunity for the reconsideration of previous studies which had determined the inefficiency of recuperations and for updating energy balance sheets with the aim of demonstrating the economic opportunity of expanding recuperation and utilization activities, many of the projects becoming now efficient¹⁵. According to some evaluations, the potential of secondary

¹⁴ The economic impact includes: fuel savings of 12-18 % (urban consumption) and 22-30 % (industrial consumption); the diminishing of specific investment, reduction of production costs. For example, such advantages account for the fact that in 1979 there were in operation in Romania 24 thermopower stations with a simultaneous production supplying thermal energy to 20 urban centres and more than 90 thermoelectric stations whose simultaneous production was servicing the industry. For steam networks, the maximum distances of heat transmission is 9.5 km and maximum pipe diameters are 600 mm, and for hot water networks, 17 km and 1200 mm, respectively. The overall fuel saving by using the simultaneous production system over the classical system was put at 2.7 million tce in 1978 at an overall energy consumption throughout the national economy of 88 million tce (N. Niculescu, N. David, C. Corcodel, *Economisirea combustibililor și energiei electrice în sistemul de termoficare*, - Fuel and Electrical Energy Saving in the Simultaneous System, "Rev. econ.", No. 28, July, 1979, p. 22).

¹⁵ N Liciu, *Valorificarea eficientă a resurselor energetice secundare* (The Efficient use of Secondary Energy Resources), "Revista economică", No. 15, April 1980, p.

energy resources throughout the Romanian economy registered in the category of those which could be efficiently utilized totals approx. 4 million tce per year¹⁶. Of course, this potential will increase with the rise in the price of imported fuel and with the improvement of recuperation technologies.

The replacement of energy-intensive technologies within all industrial branches by new ones constitutes an important way of energy saving. There are numerous and relevant examples in this respect, especially in: aluminum electrolysis, continuous steel casting, iron reduction from ores, in various chemical processes a.s.o. As a matter of fact, it is deemed that the field of technologies is one of the areas which offers the largest energy saving possibilities in all the branches of the economy¹⁷.

Considering the above exemplifications, it follows that the evaluation of the conservation potential is made by taking into account the economic efficiency limit, which practically substitutes the thermodynamic limit. Assessing conservation could be imagined as an operation of saving off all investment projects and technologies, which may lead to energy savings. Only those projects and technologies will remain in the sieve which can ensure a minimum level of economic efficiency of energy saving. Those situated below this level are not economically viable.

3. The determination of final recuperation temperature of burnt gases heat, of products and wastes heat, waste and condensed steam, as well as of the heat absorbed by the cooling agents of various energy and technological installations and units has been an important operation in the evaluation of potential thermal secondary resources, registered and included in the balance-sheet, in order to be recuperated. For instance, in the balance-sheet were also included the cooling waters at 60°C, final recuperation temperatures, and in 1977, separately, cooling waters at 30°C final temperatures.

¹⁶ From the potential secondary resources included at present in the balance-sheets of the main economic branches, 60-70% is recuperated and put to good use, of which 90 % fuel resources, approx. 50% thermal resources, and very little high pressure resources (N. Liciu, op. cit., p. 4).

¹⁷ C. Mihăileanu, A. Iancu et. al. *Dynamic of Economic and Social Development and Energy Consumption Ratio in Romania*, 11th World Energy Conference, September 8-12, 1980, Munich, Energy for Our World, H. N. McCarl, Gh. Preda, *Comparative Analysis of Potential Energy Conservation in Various Industrial Processes in Romania and the United States*, 11th World Energy Conference, September 8-12, 1980, Munich, Energy of Our World.

11.5.2. Economic motivation of energy saving measures

Energy conservation is achieved on the basis of decisions on each individual investment project, modernization or refitting, change of technology, etc. which must be economically motivated. Of course, to this end, it is necessary to adopt and use the most suitable criteria and indicators. L. Schipper's proposals, for instance, to consider the attainment of an acceptable ratio between energy production costs and conservation costs in economic terms as well as in energy terms, as the motivation for the implementation of some energy conservation schemes, is inconclusive as long as other relevant elements are overlooked¹⁸. Among these, mention should be made, in the first place, of the capital investments costs. In this connection, the problem arises whether these two factors - energy and capital - are substitutable or complementary¹⁹. In fact, investigations have proved that the two factors are, in most cases, substitutable²⁰, which implies the existence of some interdependence between energy saving and the amount of capital investment²¹. These correlations appear to be close enough, especially since there have been taken into consideration those economic units or installations where, by capital investments, reconstructions, introduction of new non-energy intensive technologies, etc., significant energy savings were obtained.

Two elements are of primordial importance in order to decide upon the merits of a certain investment or refitting: energy saving and the overall costs (including the investment costs²²) incurred by it. Indeed, conservation

¹⁸ L.Schipper, *Another Look at Energy Conservation* "The American Economic Review" May 1979, p. 362.

¹⁹ In the following studies: E. Berndt, D. Wood, *Technology, Prices and the "Derived Demand for Energy"*, *Review of Economics and Statistics*, August 1975 and E. Hudson, D. Jorgensen, U. S. *Energy Policy and Economic Growth, 1975-2000*, "Bell Journal of Economics", Autumn 1974, it is argued, based on the time series concerning the U. S. economy, that energy and capital are complementary, while energy and labour are substitutable. Comments on these are in S. Ozatalay, S. Crubaugh, T. V. Long II, *Energy Substitution and National Energy Policy*, "The American Economic Review", May 1979, p. 369.

²⁰ J. Griffin, P. Gregory, *An Intercountry Translog Model of Energy, Substitution Responses*, "The American Economic Review", December 1976; S. Ozatalay, St. Grubaugh, T.V. Long II, *Energy Substitution and National Energy Policy*, "The American Economic Review", May 1979.

²¹ W. Van Gool, *Fundamental Aspects of Energy Conservation Policy*, Institute for Energy Analysis, Oak Ridge Associated Universities, 1973 (CRAU-78-10 M).

²² Henceforward, by costs we mean overall costs, including investments when there are no other specifications.

technologies lead to a reduction in the amount of energy used keeping the same amount of production, and energy saving is a function of capital investments in the conditions of maintaining the other production factors constant (labour, raw materials). By investigating several energy conservation schemes by way of investments and attempting their generalization, the existence of several relationships between energy

saving and various economic system's variables can be ascertained²³

. In the following we shall point out some of these relationships:

1. With a view to obtaining energy savings, energy investment and current (materials and labour) expenditures are needed. That is why, in order to make a comparison between technological variants, it is necessary to calculate, on the energy saving path, on the one hand, the amount of expenditure (current, investment and overall) per each product unit and the process of energy consumption, embodied in capital equipment and overall, calculated per product unit, on the other.

2. Ranking the investment variants according to the amount of energy savings and their costs, it appears that initial savings are less costly and that the final ones, close to the thermodynamic limit²⁴, are very costly.

3. There is a point on the way of energy saving when the amount of energy saved by the investment made equals the amount of energy needed for the production and operation of the investment project. Like-wise, on the way of energy saving costs²⁵, there comes a point when an increase in these costs ceases to make an impact on the reduction of direct and embodied energy consumption. By correlating the variation of the overall energy savings costs (process and embodied) (lei/kg.ce.) with the variation of energy saving (per cent), it appears that the minimum energy

²³ A remarkable contribution to the clarification and mathematical formulation of the main relationships in this field, including the interpretation of the production function with the factors "capital and energy" is made by Willem Van Gool in the studies: Fundamental Aspects of Energy Conservation Policy, ORAU/IEA-78-20/M/ ; Constraints on Energy Conservation, ORAU-78-17/M/; Limits to Energy Conservation in Chemical Processes, OBAU/IEA-78-6/M/ published by the Institute for Energy Analysis, Oak Ridge Associated University, 1978.

²⁴ According to the second law of thermodynamics, losing its quality, energy is close to a state of degradation, and therefore, can no longer be used.

²⁵ These refer to investment I and process C expenditures. The sum of these cost categories implies their previous homogenization, using to this end the normative efficiency coefficient en . In this way the indicator " calculation expenditures": $C + I$ en is determined. The homogenization of the two summable elements can also be made by using the discount method.

consumption differs from the minimum saving costs, as can be seen in the following diagram (fig. 2):

Pushing energy saving technologies towards the thermodynamic limit, per unit investment and running costs begin to rise. An initial drop in the energy consumption leads to a reduction in unit costs up to a certain point, after which they begin to rise.

4. Correlating energy saving costs with the per cent rise in energy conservation, it appears that during the achievement of the first percentage points of energy saving, the unit conservation costs rise very slowly. Only in the case of a substantial increase in energy saving, towards thermodynamic limit, a very rapid cost increase takes place (Fig. 3).

Therefore, solutions which reach such levels of energy saving that come closer to the thermodynamic limit become ever more inefficient.

5. When choosing the investment variants for energy conservation in comparison with investment variants for energy production expansion, the amount of energy which society could obtain for each monetary unit invested in each variant of the above-mentioned categories should be determined. Thus the comparison between saving marginal costs and the marginal costs of the increased energy production can be made. Supposing the marginal energy saving costs are higher than the marginal energy production costs, the question arises of whether or not the solution is rational. The solution could be deemed normal when account is taken of the rates of energy resources depletion. In fact, it is exactly what the present generation should pay for next generations with the aim of preserving natural resources. Here, the real problem is of determining the size of the difference between the marginal costs of the two project categories or, in other words, to what extent these differences can be accepted. The answer depends on two factors: the degree to which the present generation is prepared to give up part of its incomes in favour of next generations; the present and prospective foreseeable rate at which scientific research could come up with convenient solutions for changing energy structure and could include new plentiful and inexhaustible energy sources into the economic system.

Fig. 2

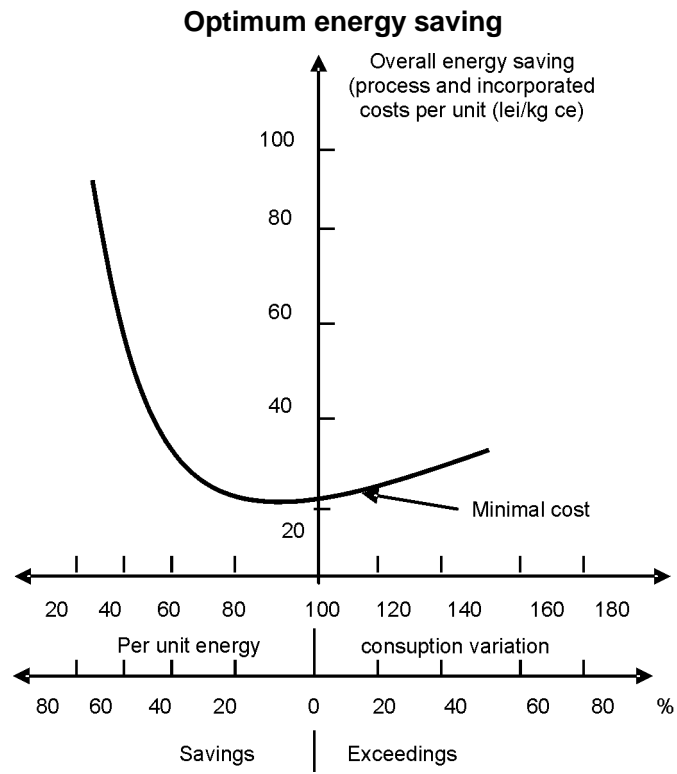
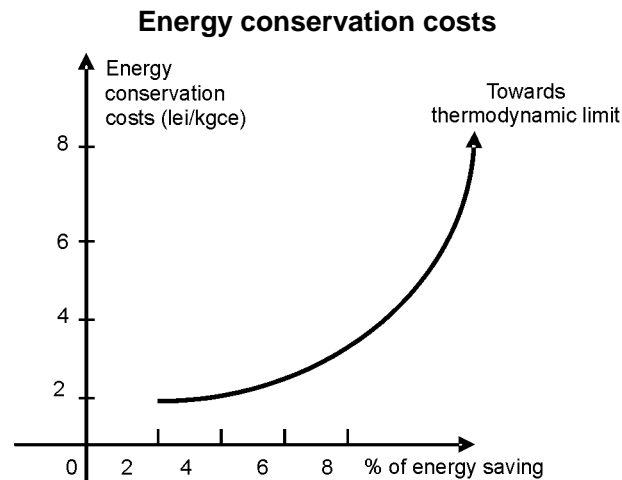


Fig. 3



6. With a view to determining the efficiency of tying up funds (in case of the amount of investments) or the efficiency of expenditures made (in case of the amount of energy embodied in investments and of process energy), it is necessary to find out the time period during which these can be recuperated from the energy savings achieved by applying the projects under consideration. As is known, by the mere calculation of the ratio between the amount of investments or the amount of energy spent and the annual amount of saved energy (in value terms in the first case and quantitatively in the latter) the time period during which expenditures can be recuperated from the annual savings to be obtained is determined.

11.5.3. Increased energy conservation by economic policy measures

The self-management system creates favorable conditions for the economic units to take decisions in connection with the implementation of some reconstruction works, modernizations, refittings and capital investments aimed at achieving energy savings.

In order to ensure the economic motivation of technological variants it is necessary to determine in the first place, the net energy saving (which must also take into consideration the consumption of energy embodied in investments) and, in the second place, the time period required for the recuperation of investment expenditures from energy savings (in terms of value). While, from the point of view of the net energy saving obtained, the

projects may be motivated, viewed from the angle of costs, they may appear unprofitable, as they cannot be recouped during an acceptable interval. Such situations do not always crop up due to technological solutions. As mentioned before, one of the reasons could be the maintenance of lower energy prices in the domestic market, as against those prevailing in the world market. But even in the case of domestic prices reaching the level of foreign ones, in fact or fictiously (as a means of calculation), the problem cannot be solved if we take in consideration the fact that in the long run energy prices rise at a fast rate, as this means that the optimum points shift towards those places which indicate quantitatively small energy savings, yet relatively high in value terms. Thus, solutions which appear inefficient today, from the point of view of energy saving, may later on become efficient. Therefore, there is a time reaction to the increase in energy prices, in the sense that even the variants which in the long run will bring less and less energy savings will be considered acceptable. Nevertheless, enterprises cannot accept such variants as they are guided by profit-making and the fulfillment of other indicators not during a long time span, but currently. In such case, the budget financing of capital investments for those projects whose energy efficiency can be achieved only in the future, after some energy prices increases, becomes the most viable solution.

Knowing with approximation the long-term evolution of energy prices, the decisions concerning energy saving schemes could be spread out in time and supported by the State through the budget. Thus, the adjustment to energy price increases can be made gradually. It is deemed that the State should support with budget funds even those schemes for making use of new sources of energy and of its conservation which would become efficient only after 10-20 years²⁶. As a matter of fact, the role of economic policy is also to prevent some economic discontinuities and imbalances which cannot be solved by existing economic mechanisms. To this end, either direct economic and financial elements (such as the allocation of some investment funds), or some levers or indirect economic policy elements should be created and used.

²⁶ W. Van Gool, *Fundamental aspects of Energy Conservation Policy*, Institute for Energy Analysis, Oak Ridge Associated Universities, 1979, p.30.

11.6. Improvement of production structure for energy conservation

Another important way of conserving energy and raising the efficiency of its use is related to the improvement of production structure by promoting the development of the branches and productions with a low energy consumption and a high degree of processing and advanced technology, limiting at the same time to the strictly necessary the production of energy-intensive products.

11.6.1. Determination of the total consumption of energy per product unit

For the orientation of efforts in the direction indicated above and for their application it is increasingly necessary to reconsider the energy consumption rates set and to make use of new improved methodologies for the calculation of the economic efficiency of the consumption of energy resources in the studies on the structure improvement of production, of foreign trade, on the utilization of large energy consuming production capacities, on their modernization and on investments.

A critical consideration of the present system of accounting, calculation and analysis of energy consumption and of the system of its evaluation shows that very often these systems encourage the energy consumption or are not apt to contribute to avoiding decisions leading to large and inefficient energy consumptions.

Such situations occur because the accounting system for production costs is recording only energy consumptions in the respective manufacturing stages called direct consumption. Consumptions in the previous stages and in the connected production are usually recorded in the general account "Raw materials", thus losing track of the energy consumptions. Therefore the present accounting records do not show the total energy consumption embodied in each product. To this several elements are often added which influence the price formation - charges, subsidies meant to protect some categories of consumers, etc. - the price of energy and fuels being thus considerably distorted in all economies.

To achieve the targets of an energy policy in the field of substitution of energy-intensive product exports and of investments required to save energy it is necessary to start from a correct calculation and an economic motivation, which implies the use of adequate calculation techniques and of notions as direct and embodied consumption of energy expressed in terms

of value and in natural units by branches and products and also of indicators and methodologies for the calculation of the economic efficiency of substitutable production and of exportable energy-intensive products.

The necessity for using adequate methodologies and indicators derives from the following considerations and observations:

- a) in Romania and in other countries the scarcity of energy resources will become greater, the situation requiring drastic measures for energy saving;
- b) prices in the world market are growing at high rates;
- c) a large cooperation between enterprises engenders the possibility to identify the quantity of resources embodied into final products;
- d) the present system of internal prices is not sufficiently sensitive to the increasing scarcity of energy, as internal prices cannot be rapidly correlated with those in the world market. As a consequence, the calculation of production efficiency in terms of value appears distorted, inconclusive.

To eliminate such drawbacks and to set the premises of a correct calculation of the indicators used to motivate the orientation of production structure with a view to minimizing the energy consumption and to attaining other important objectives, investigations have been carried out within the framework of the Central Institute for Economic Research in Bucharest. The methodology and data used have been those obtained from the input-output analysis in order to calculate the coefficients of total or embodied energy consumption by aggregated branches. These coefficients are expressed in value terms (lei for energy/ one leu production). They may also be expressed in natural or conventional units. To pass from value to natural or conventional units, average prices of energy in the respective years may be used.

In view of the fact that the available input-output tables present a high degree of aggregation, and the requirements for the economic substantiation of decisions cannot be met by such global data, the total energy consumption in the technology of the product manufacturing process has been determined down to the initial source of raw material. For this purpose PERT networks have been used, the technological processing path, the material consumption standards and the energy consumption standards for the relative materials being known. The results obtained have proved satisfactory with respect to precision degree and details required by the analysis of the efficiency of product and technology substitution, of investments for energy saving and of foreign trade relations²⁷.

²⁷ A. Iancu, R. Burbea, et al., *Consumul energetic și structura producției* (Energy

11.6.2. Product substitution for energy saving

From the research work carried out it has become evident that, under Romanian conditions the most important and feasible ways of improving the production structure with noteworthy effects on energy saving are related to the substitution of some raw materials and products designed for intermediate consumption and to the substitution of some products for export.

As regards the reciprocal substitution of some raw materials and products meant for intermediate consumption according to the criterion of energy consumption minimization without a change in the volume of final production, this is an important specific target for which the following actions should be taken: to establish the list of substitutable materials with indices of resistance to traction pressure and temperature, weight or volume etc., to determine the embodied energy by products in various stages of processing, the consumption being expressed in kilograms of conventional fuel per product unit, per ton, per volume unit (cubic dm) or per value unit (1000 lei production) etc., depending on the characteristics of the materials subject to analysis and on relative purposes.

The difference in per unit total energy consumption in the production of some substitutable metals is shown in Table 2.

Table 2

Energy embodied in various substitutable products according to data from BASF (F.R. Germany) and Institute for Industrial Economics (Romania) (in kilograms of oil equivalent)

	Federal Republic of Germany	Romania
To produce a cubic dm of:		
- aluminum*	16	15
- copper**	11	13
- steel***	8	8

* electrolytic aluminum

** converted copper

*** electrical allied steel

Source: 'The Economist', November 3, 1979; *Determinarea consumului cumulat de resurse primare pe produs (Determination of Cumulative Primary Resources Consumption per Product)*. 'St. econ. indust'. N^o 7, Bucharest, 1979.

Consumption and Production Structure), Bucharest, Ed. Academy, 1979; A. Iancu, V. Bogdan, Al. Mihăilescu, M. Giuvelea, *Resursele și structura industriei (Resources and Industry Structure)*, Bucharest, Ed. Academiei 1980.

Frequently, the problem is raised as to the substitution of various materials in the manufacturing of certain products: for instance replacing copper by aluminium, concrete by steel, steel by plastic materials. For a long time it has been believed that the use of plastic materials instead of metals, of paper or ceramics, is disadvantageous in point of the energy embodied in the above-mentioned categories of materials. But calculations have proved the contrary, as it results, for instance, from the comparative data representing kg oil equivalent embodied in the following products²⁸.

100 bags for fertilizer wrapping made of:

- paper 39
- low density polyethylene 36

100 m of pressure resistant tubes (diameter 25 mm) made up :

- steel 500
- copper 96
- high density polyethylene 38

100 m of draining pipes diameter 100 mm/made of

- cast iron..... 1970
- ceramic..... 275
- polyvinyl chloride..... 154

100 bottles of 1 liter made of :

- glass 23
- high density polyethylene 12
- polyvinyl chloride 8

A comprehensive analysis concerning the substitution of products with a view to saving energy implies taking into consideration the energy consumption not only in the stages of production and processing of raw materials, but also in the stages of their utilization by the beneficiary and of recirculation of materials obtained from used products²⁹. For instance, in the construction of the automobile body where steel, aluminum or plastic materials may be used, some properties such as weigh, durability, degree of recovery of materials through recycling, etc. should also be taken into

²⁸ "The Economist", Nov. 3, 1979. The computations carried out at the Institute of Industrial Economics, Bucharest show results close to the above-mentioned ones. Whenever differences appear, they are due to technological differences.

²⁹ D. Gabor, U. Colombo, *Beyond the Age of Waste*, New York, Pergamon Press, 1978, M. D. Popescu, *The Active Circular Process - A Solution for Turning to Better Account the Natural Resources and for Energy Saving*, in Science and Joint Report of World Future Studies and DSE - Preconference held in Berlin (West) 4th-10th May, 1979, Munich, K. G. Sour, 1979, Part 2.

consideration. It is known that greater weight owing to the use of steel sheet implies a higher energy consumption of the vehicle operation. But, at the same time, both steel and aluminum may be recycled which means an economy of materials and energy. As shown in Table 3, the differences between energy consumption to obtain raw materials and the consumption for recycled materials are quite important³⁰.

Table 3
Energy saving through recycling some basic metals as compared with their production from ores

	Energy consumption to produce (kcal/g)		Energy saving (kcal/g)
	Raw materials	Recycled materials	
Aluminium	44.2	1.7	42.5
Copper	11.6	1.5	10.1
Iron	3.7	1.4	2.3
Magnesium	78.1	1.6	76.5
Titanium	108.5	45.1	63.4

Source: D. Gabor, U. Colombo, *Beyond the Age of Waste*, New York, Pergamon Press, 1978.

At the same time, the optimal duration of operation of the products according to the energy saving criterion should be taken into account, due consideration being given to the embodied energy and to the consumption required for the operation of the respective product in comparison with the consumptions demanded by other new products to be introduced into the manufacturing process.

11.6.3. Analytical elements of the import/ export structure for the

³⁰ Research work carried out at the Institute of Industrial Economies – Bucharest in the recuperation of materials embodied in scrapped goods, indicates an important amount of energy and material resources obtained in this way. For instance, the mere utilization of scrap iron of about 500 kg/t steel, brings an overall energy saving of more than 5 million tce. *Estimarea cantitativă și structurală a materialelor obținute prin scoaterea din uz a unor bunuri de folosință îndelungată și evidențierea posibilităților de recuperare a acestora de la populație* (The Quantitative and Structural Assessment of Materials Obtained by Scrapping Some Consumer Durables and Possibilities of their Recuperation from the Population, "St. econ. industr.", No. 12, Institutul de economie industrială, Bucharest, 1980.

purpose of energy conservation

A possibility of energy conservation, especially in a country where energy resources are scarce, is offered by a foreign trade policy pursuing a change in the structure of exports and imports for this purpose. In this respect, a serious problem for Romania is that of the gradual substitution of highly energy-intensive products by others with lower levels of energy consumption. In our studies on these aspects, many problems of methodology have emerged in connection with the determination of the economic efficiency of exports of products viewed from the angle of energy consumption, as the export of products and services is implicitly an export of embodied energy resources³¹.

In view of the fact that internal prices are subject to certain distortions and are not correlated with external energy prices, the degree of recovering the price of the embodied energy and of other resources through the price of exported products has been measured by some specific means such as: a) a comparison of the external price of an exported product with the external price of the energy embodied in the respective product, assuming that the whole energy is imported. The difference between the external price of the exported product and the price of the embodied energy consumption should cover all the other elements of the price; b) the calculation of the degree of recovery of energy price through the sale of the product as a ratio of the net price collected from the export of the product in dollars (after deducting the share relative to the other production factors) to the price of energy in dollars in the world market. A high ratio above unity indicates an efficient degree of recovery of the price of the energy embodied in the exported products³².

³¹ *Of course this applies correspondingly also to import.*

³² For the research theme of the Central Institute for Economic Research concerning energy consumption and production structure, computations have been made of the embodied consumption of energy, labour, funds and mineral raw materials, of the degree of energy recuperation as well as of the level of national labour valuation for several hundreds of energy-intensive industrial products: *Determinarea consumului cumulat de resurse primare pe produs* (Determination of Cumulative Primary Resources Consumption per Product), "Studii de economie industrială" No.7, Institutul de economie industrială, Bucureşti 1979; *Consumul cumulat de resurse energetice pe produs-element de analiză a structurii industriei* (Cumulative, Energy Resources Consumption per Products - Analysis Factor of Industrial Structure), "Studii de economie industrială" N^o. 3, Institutul de economie industrială, Bucharest, 1978.

The export and import relationships should comply not only with the requirement for conserving energy, but also with that for achieving a close correlation with the degree of endowment of the economy with production factors.

In this connection according to the Heckscher-Ohlin theorem, it appears rational to promote the export of those products and services in which abundant resources are embodied and to import those products and services in which scarce resources for the national economy are embodied³³.

Usually, the production factors are grouped into the following categories: labour, capital, raw materials, energy. By means of the input-output analysis the amount of resources embodied in exported products and conventionally in the imported ones can be determined³⁴. The method worked out by W. Leontief and applied in the case of the two production factors labour and capital³⁵, may be extended to other production factors such as energy and resources of raw materials³⁶.

The calculation of the amount of resources embodied in exported and imported products and the comparison of the two relations (export and import) by each production factor allows the determination of the relationship between the outward flow of resources (production factors) and the inward flow of the same resources³⁷. In these calculations and analysis the following indicators are used³⁸.

³³ Eli Heckscher, *The Effect of Foreign Trade on the Distribution of Income*, *Economisk Tidskrift*, vol. 21/1919, reprinted in R.S. Ellis, L.A. Metzler (editors), *Readings in the Theory of International Trade*, Blakiston, 1949; Bertil Ohlin. *Interregional and international Trade*, Revised Edition, Mass., Harvard University Press. 1967.

³⁴ It is assumed that all imported products may be substituted by those domestically produced. The calculation takes therefore into account resource consumption as if these products were produced at home.

³⁵ W.W. Leontief, *Domestic Production of Foreign Trade: the American Capital Position Re-Examined*, *Proceeding of the American Philosophical Society*, September, 1953 ; Masahiro Tatemoto, Shinichi Ichimura, *Factor Disproportions and Foreign Trade: the Case of Japan*, "The Review of Economics and Statistics" No. 4/1959.

³⁶ J. Vanek, *The Natural Resource Content of United States Foreign Trade, 1870-1955*, Mass., Cambridge, M.I.T., 1963; Seiji Naya, *Natural Resources, Factor Fix and Factor Reversal in International Trade*, "The American Economic Review", vol. LVII, May 1967; A. Iancu, *Factor Endowments and Structural Modifications of the Economy in the Process of Socio-Economic Development*, University Press, Bucharest, 1980.

³⁷ A.L.Hillman, C. N. Bullard, *Energy, the Heckscher-Ohlin - Theorem and U. S.*

- L^e and L^m - amount of labour embodied into exported and imported products;
- K^e and K^m - amount of capital required by the manufacturing of exported and imported products;
- R^e and R^m - amount of raw materials³⁹ embodied into exported and imported products;
- E^e and E^m - amount of energy resources⁴⁰ embodied into exported and imported products.

The degree to which exports of resources are higher than imports is indicated by the above unitary ratio of the total amount of exported resources to that of imported resources embodied into products and services which make the object of foreign trade. In the hypothesis similar to the situation in Romania, in which energy and some raw materials are scarce resources relative to other categories of factors, and the comparison between the ratios of the export amount to the import amount by each factor would be as follows:

$$E^e/E^m > R^e/R^m > L^e/L^m > K^e/K^m,$$

it is obvious that the situation appears different in respect to the principle or the general requirement to promote mainly the export of those categories of products and services which embody abundant factors and the import of products and services which embody scarce factors⁴¹. Of course for energy and raw material resources, when these are scarce, ratios less than unity appear rational, while for labour and capital resources which are abundant, ratios above unity appear normal. The arrangement of the ratios in such a hypothesis would be as follows:

$$L^e/L^m > K^e/K^m > R^e/R^m > E^e/E^m$$

This relationship should be considered only as a hypothesis which could be normal when quantitative factors are taken into account⁴². But,

International Trade, "The American Economic Review", 1978.

³⁸ Direct and indirect imports and exports are included here. For instance in the case of energy of exports as such, including the energy consumption for energy production, as well as energy embodied in all other products which are exported.

³⁹ Including those exported and imported in unprocessed state.

⁴⁰ Including the export of energy as such.

⁴¹ A.L.Hillman, C.W.Bullard, op. cit., A. Iancu, V. Bogdan et al., *Resursele și structura industriei (Resources and Industry Structure)*, Bucharest. Ed. Academiei, 1980.

⁴² The best example in this respect is offered by the Leontief paradox. See W.W. Leontief, op. cit.

there are also qualitative factors which cannot be quantified and may change the relationship. For instance a decisive influence in the evolution of some factors and relationships among them is exerted by the technical progress. This could determine savings, factor or product substitution or could stimulate some categories of exports, liable to modify the above arrangement of the factor relationships.

11.7. Extension of international co-operation in the field of energy

Owing to the wide international division of labour, to the unequal concentration on the globe of the main fuel reserves and to the existence of economic and technological gaps between various countries, the energy problems, like the economic ones in general, have ceased to be isolated problems of each country. The best example is offered by the effects of the present energy crisis which affects with various intensities each energy importing country. The energy problems become more and more universal. They cannot be solved through the isolated effort of each country, but require a close co-operation between nations. Moreover, without an extensive co-operation in the field of energy among all nations - developed and developing ones - between socialist and non-socialist ones, no satisfactory solution could be found for the other world economic and political problems. More than ever, in our days, the necessity has become obvious to pass from confrontation to the widening of an efficient and equitable co-operation among all nations for the solution of energy problems related either to the export or import of fuels or to co-operation in the production of energy and raw materials or to scientific and technical co-operation in this field.

Pursuing consistently a policy of extending the international economic relations and of improving the world political climate, Romania has included into her programmes of economic and social development the decision to deepen further the co-operation and collaboration in the field of energy on the basis of the respect for independence, sovereignty, of non-interference in the internal affairs and of mutual advantage, priority being given to the solution of problems related to the widening and turning to good account of the conventional energy resources and of the hydroenergetic potential, to speeding up the adoption of nuclear energy programmes, a more rapid and efficient utilization of new energy sources. Thus, Romania is interested in the development of co-operation in the field of construction of nuclear power stations, in obtaining efficient materials and technologies for

the utilization of new energy sources and in the promotion of advanced energy technologies. Romania is also interested in an active participation in joint research programmes initiated or sponsored by the United Nations and in the framework of actions of regional or bilateral co-operation for the purpose of solving the energy problems. Another important objective of the extension of Romania's international collaboration is the elaboration and adoption of up-to-date technologies which could contribute to fuel and electrical energy saving in all fields of activity.

As a consequence of the rapid economic development and of vast experience, Romania has nowadays the technical and organizational capacity required to extend the co-operation with other countries for the utilization, on a mutual advantageous basis, of energy resources of various kinds existent in the respective countries through geological prospection and exploration works, the construction of energy projects, the joint development of new energy sources and technologies, and know-how and consulting services in the energy field.

In Romania there is a deep conviction that only through a wide and equitable extension of bilateral and multilateral co-operation, problems of energy in the world and in each country can be solved in the future.

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