

Iancu, Aurel

**Working Paper**  
**Institutional Convergence**

Working Papers, No. 090101

**Provided in Cooperation with:**

“Costin C. Kirişescu” National Institute for Economic Research (INCE), Romanian Academy,  
Bucharest

*Suggested Citation:* Iancu, Aurel (2009) : Institutional Convergence, Working Papers, No. 090101,  
Romanian Academy, National Institute for Economic Research, Bucharest

This Version is available at:

<https://hdl.handle.net/10419/110420>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



**THE ROMANIAN ACADEMY  
THE “COSTIN C. KIRIȚESCU” NATIONAL  
INSTITUTE FOR ECONOMIC RESEARCH**

**WORKING PAPERS**

*Institutional Convergence*

Aurel Iancu

Bucharest  
2009

INCE – CIDE  
Bucharest, Calea 13 Septembrie, No.13, Sector 5



# INSTITUTIONAL CONVERGENCE\*

AUREL IANCU\*\*

*In this chapter, we describe the essence and role of the institutions in the modern economic systems, the main issues concerning the institutional convergence in relation to the EU integration, the institutional capital and the impact of the quality and effectiveness of the institutions on filling the economic gap between countries, in the context of the implementation of the European integration strategy.*

Keywords: *Rules, formal institutions, informal institutions, transaction cost, integration, acquis, compliance, institutional capital, regression.*

JEL: *E02; F36; F55; F59; O43*

## 1. Introduction

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 economy<sup>1</sup>.

Being long overlooked by the conventional economic theory<sup>2</sup>, the institutional dimension of the economies is coming into its own within the new

---

\* Study within the CEEX Programme – Project No. 220/2006 “Economic Convergence and Role of Knowledge in Relation to the EU Integration”. The Romanian version has been published in *Studii Economice*, Institutul Național de Cercetări Economice, 2009

\*\* **Aurel Iancu** is a Member of the Romanian Academy, Senior researcher within the National Institute for Economic Research, with a long experience in European and national research programmes, coordinator of PhD programmes in economic science.

Romanian Academy/National Institute for Economic Research; Address: Calea 13 Septembrie, No. 13, Bucharest, Romania, e-mail: iancua1@yahoo.com

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

<sup>2</sup> In his inaugural lecture as an economic policy professor at Cambridge, Marshall said that the major fallacy of the English economists in the early 19<sup>th</sup> 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.).

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 mechanisms<sup>3</sup>.

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

Although institutions count a lot in the real economic life and may be analysed with the tools of the economic theory<sup>4</sup>, 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

---

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

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

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.

## 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.

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 institutions<sup>5</sup>.

Douglas North<sup>6</sup> 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

---

<sup>5</sup> 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.

<sup>6</sup> 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.

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 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 sector<sup>7</sup>.

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 benchmarks<sup>8</sup>. 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.

---

<sup>7</sup> 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.

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

### 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 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 follows<sup>9</sup>:

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 area<sup>10</sup>. 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.

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

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

<sup>10</sup> 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).



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 activities<sup>11</sup> could be promoted.

#### **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 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,

---

<sup>11</sup> 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.

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)<sup>12</sup>; 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 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.

---

<sup>12</sup> 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 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*<sup>13</sup>. The accession of the countries to the EU is strictly connected with the observance of the criteria and the *acquis* 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 application<sup>14</sup>.

## **5. Analytical tools and empiric evaluation of the institutional convergence**

---

<sup>13</sup> 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.

<sup>14</sup> 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.

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 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 capital<sup>15</sup> or the social infrastructure, as well as the indicators of different degrees of aggregation and composite indicators.

### *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 study<sup>16</sup> and the compliance degree of the regulations adopted by the countries transposing the Community acquis<sup>17</sup>.

<sup>15</sup> 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.

<sup>16</sup> 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.

<sup>17</sup> The indicators regarding the compliance degree is computed according to the relation:

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 2004<sup>18</sup>. 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
<b>A. Negotiated Chapters (provisionally closed)</b>		
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
<i>Table 1 (continued)</i>		
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
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

$$K_{comp} = \frac{M_t C_t + M_p C_p + M_{c/in} C_{c/in}}{M}$$

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 compliance;  $0 < C_p < 1$  – partial compatibility; 0 – incompatibility or unknown compatibility.

<sup>18</sup> 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.

27. PESC	57.00	100.00
28. Financial control	100.00	90.00
<b>Partial Total (A)</b>	<b>82.60</b>	<b>78.60</b>
<b>B. Chapters under negotiation (open)</b>		
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
<b>Partial Total (B)</b>	<b>68.33</b>	<b>71.32</b>
<b>Grand Total (A+B)</b>	<b>75.5</b>	<b>75.0</b>

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.

## 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 rules<sup>19</sup>. The stock of capital includes all the experience and 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 market<sup>20</sup>.

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

---

<sup>19</sup> 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 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. Hameman and Julius Margolis, eds., *Public Expenditure and Policy Analysis*, Chicago, Markham).

<sup>20</sup> Syed M. Ahsan and Melania Nica, *Growth, Integration and Institutions in Eastern Europe and Former Soviet Union* (EEFSU), internet, April 2005.

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 20<sup>th</sup> 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 balance of the national economies<sup>21</sup> 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 obstacles<sup>22</sup> 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 convergence<sup>23</sup>. 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

---

<sup>21</sup> M. Raiser, 2001, "Informal Institutions' Social Capital and Economic Transition. Reflections on a Neglected Dimension", in Corma 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](http://www.gdnet.org); *idem*, *Journal of Economic Literature*, XL, 793-836; Syed M. Ahsan and Melania Nica, *op.cit.*

<sup>22</sup> 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.

<sup>23</sup> Daniel Kaufman, Aart Kraay and Pablo-Zoido-Lobaton, *Governance Matters*, World Bank Development Research Group, "Macroeconomics and Growth", Policy Research Working Paper, 2196, Oct. 1999.



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.

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  $\varepsilon$  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  $\varepsilon$  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 vocation<sup>24</sup>. 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

---

<sup>24</sup> 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/Wall Street Journal computes the general index of the economy freedom (decentralisation), on the basis of the experts' assessment of ten relevant institutional factors, as well as the average subindices concerning the property rights, governmental regulation and corruption.
- Freedom House computes the indicators on the basis of evaluations by the foreign experts, who know very well that country's realities; the indicators regard the state of law, governance, public administration, privatisation, political and civil rights.
- World Economic Forum computes, on the basis of surveys, the indicators concerning the macroeconomic environment, public institutions, technological progress, as well as and the sub-indicators of the determinants and the compound (synthetic) indicators concerning the competitiveness level.
- European Bank for Reconstruction and Development computes the indicators concerning the transition economies on the basis of the assessments carried out by foreign experts (bank reform, interest rate liberalisation, competition policy, governance and enterprise restructuring, general infrastructure reform, big privatisation, market liberalisation, market and non-banking institution protection, small privatisation, trade and foreign trade) as well as a compound index called the reform progress index.
- World Bank carries out research on the institutional environment for the World Development Report and computes the indicators concerning the following: predictability of the governmental policies (laws, policies), property rights, quality of the governance-business-bureaucracy-governance effectiveness relation in the services field, corruption, reliability of the institutions, institutional constraints, etc.
- Euromoney has published assessments of country risk since 1992, on the basis of the experts' evaluations.

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 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 102<sup>nd</sup> and 100<sup>th</sup>, 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 Philippines<sup>25</sup>.

*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 102<sup>nd</sup>, 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 81<sup>st</sup> for the macroeconomic environment (2.93), the 96<sup>th</sup> for the governmental waste (1.95), and the 66<sup>th</sup> for the country rating (2.64)<sup>26</sup>.

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

---

<sup>25</sup> World Economic Forum Database.

<sup>26</sup> World Economic Forum Database.

indicators, by transposing the Community acquis. A problem to be solved very quickly is the enforcement and observance of the new rules.

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) (Annexes 1-3), 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:

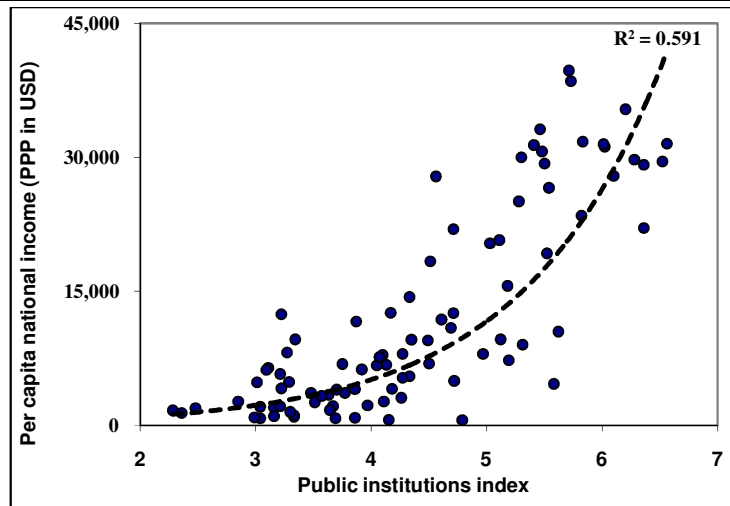
- by all countries on which data are available;
- by the EU countries (27 + Turkey, as an applicant country).

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.

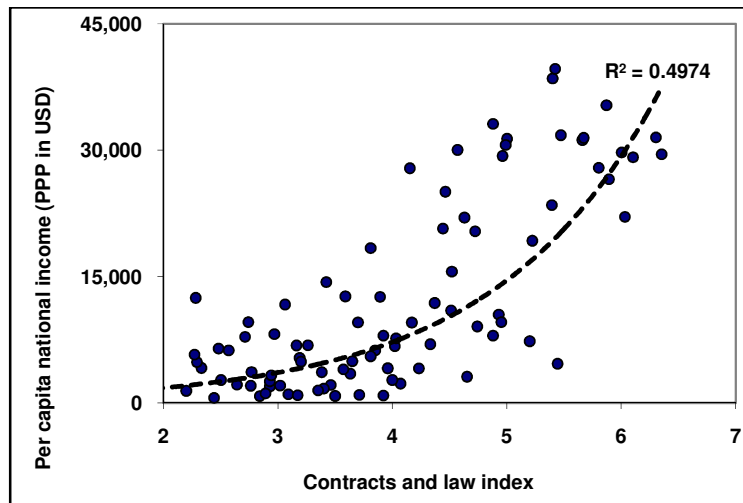
Processing the data according to the above scheme we obtain the following significant results presented both graphically, Figures 1-14, and numerically, Table 2.

The analysis of the figures reveals a relatively high correlation between the development level of the national economies (per capita gross national income) and the indices (sub indices) concerning the institutional capital of the panel countries.



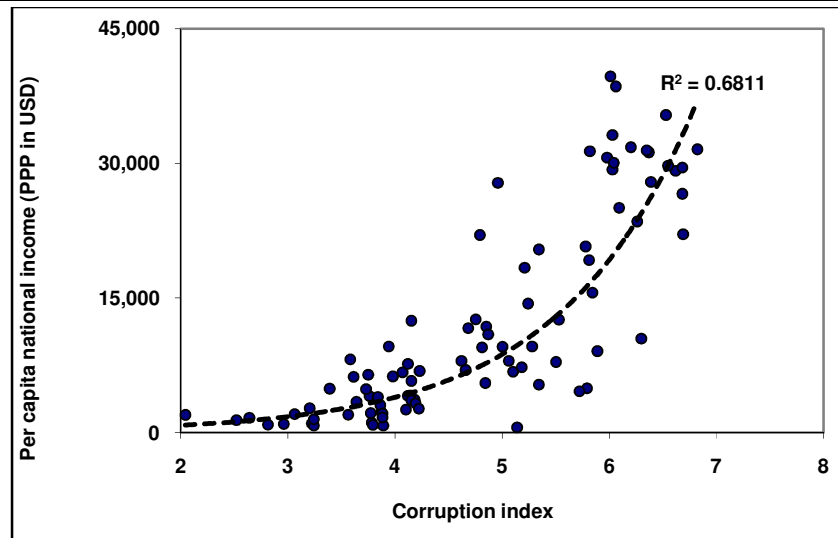
Source: Annex 1 data.

Figure 1. The correlation between the public institution index and per capita gross national income (country total).



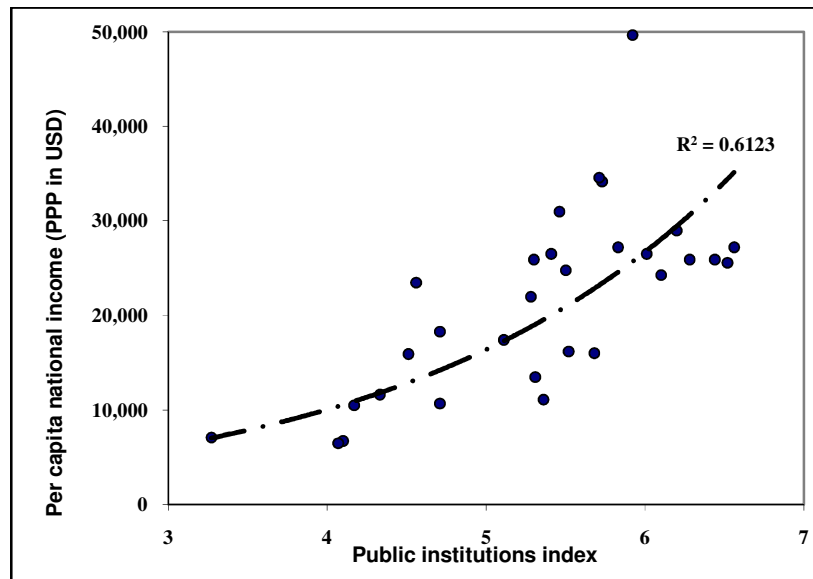
Source: Annex 1 data.

Figure 2. The correlation between the contract and law index and per capita gross national income (country total).



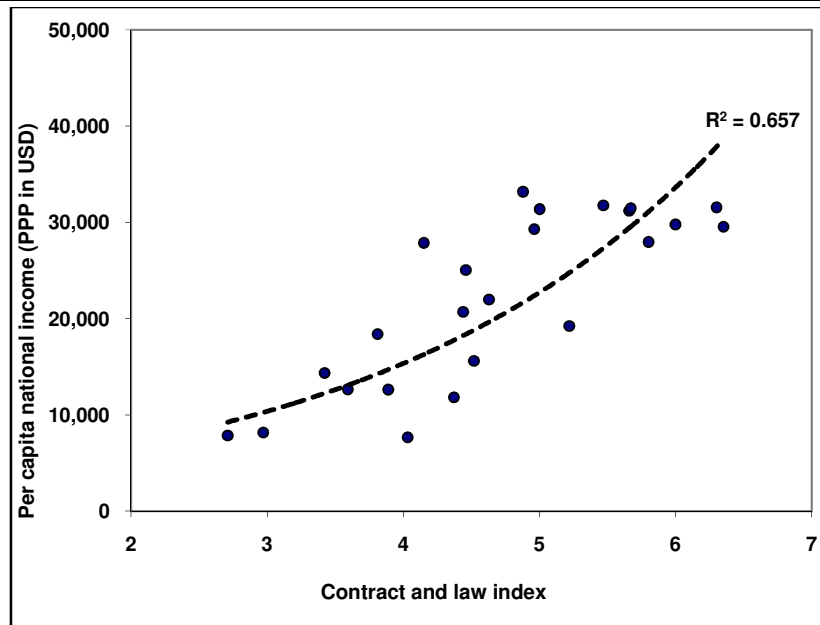
Source: Annex 1 data.

Figure 3. The correlation between the corruption index and per capita gross national income (country total).



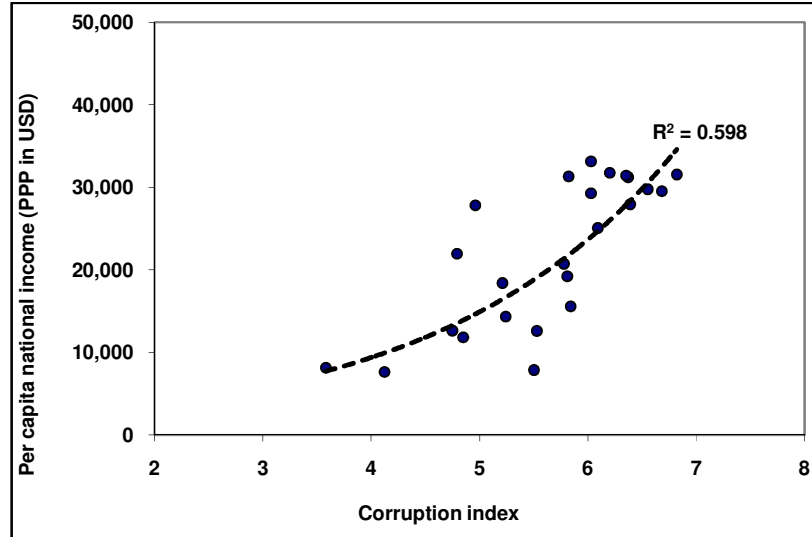
Source: Annex 1 data.

Figure 4. The correlation between the public institution index and per capita gross national income (EU countries).



Source: Annex 1 data.

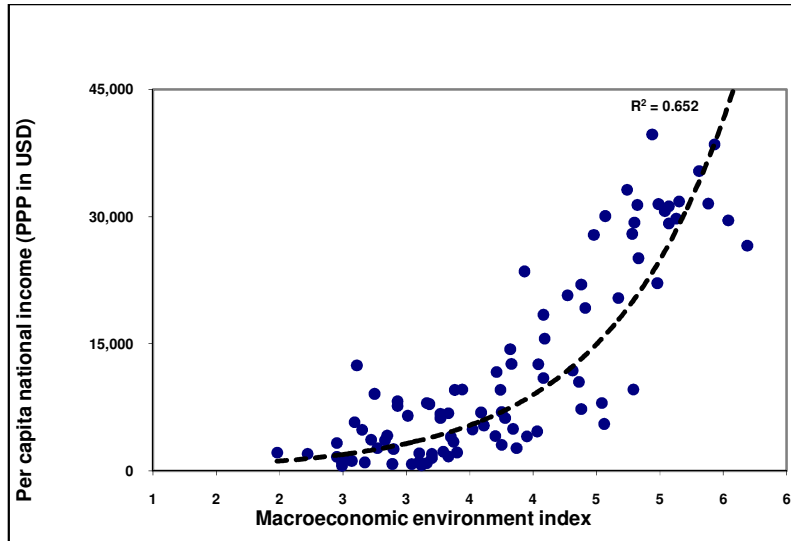
Figure 5. The correlation between the contract and law index and per capita gross national income (EU countries).



Source: Annex 1 data.

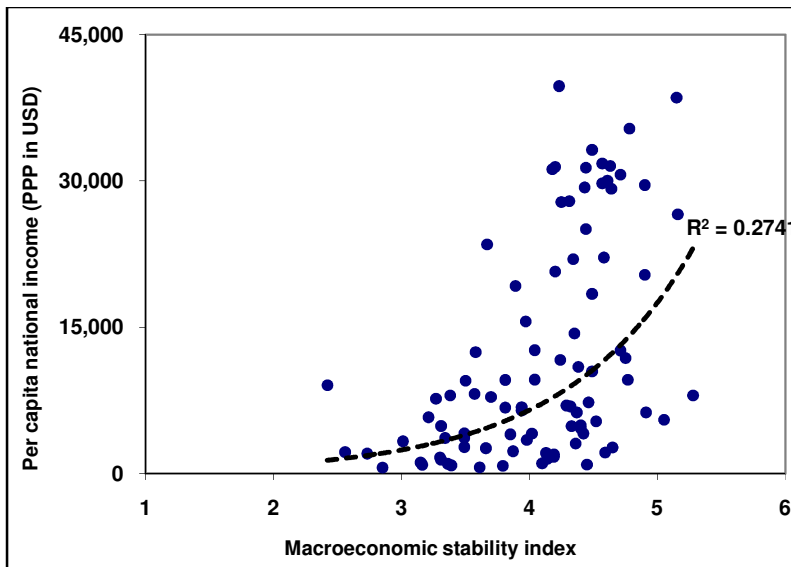
Figure 6. The correlation between the corruption index and per capita gross national income (EU countries).





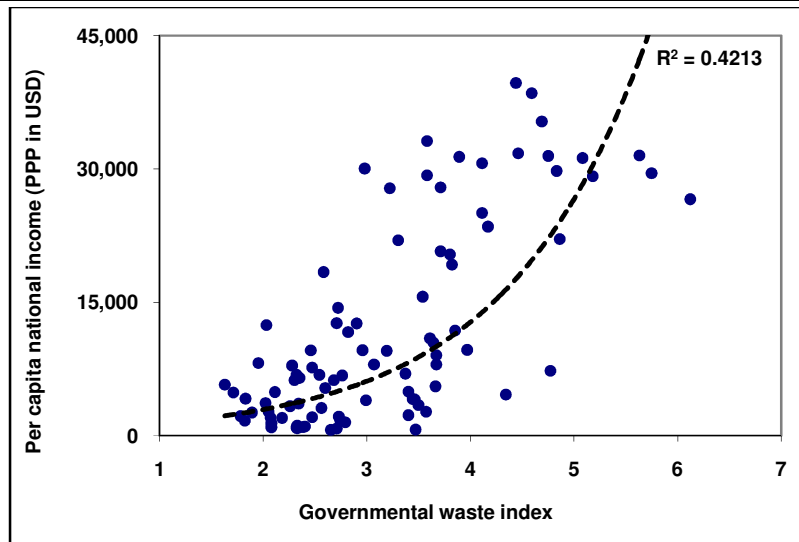
Source: Annex 2 data.

Figure 7. The correlation between the macroeconomic environment index and per capita gross national income (country total).



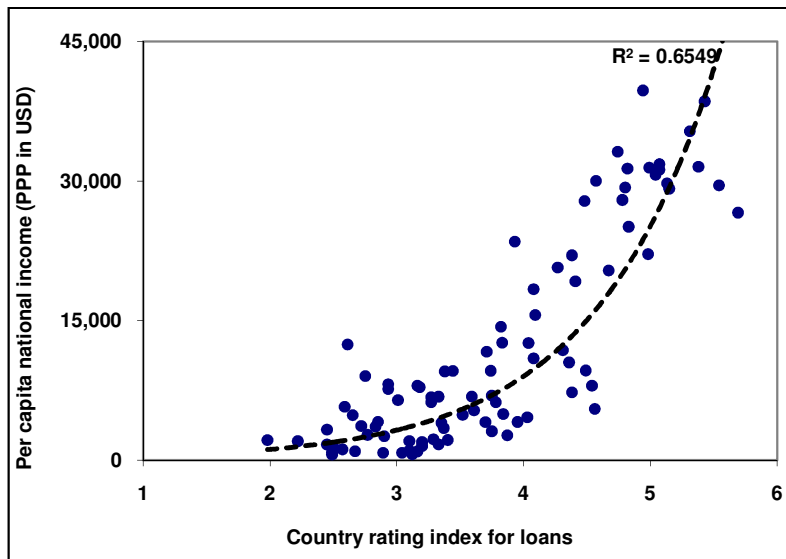
Source: Annex 2 data.

Figure 8. The correlation between the macroeconomic stability index and per capita gross national income (country total).



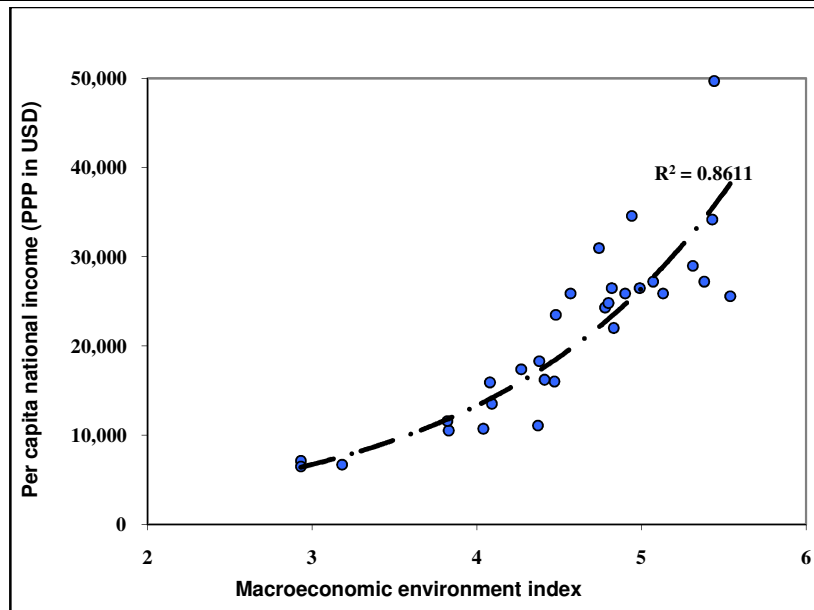
Source: Annex 2 data.

Figure 9. The correlation between the governmental waste index and per capita gross national income (country total).



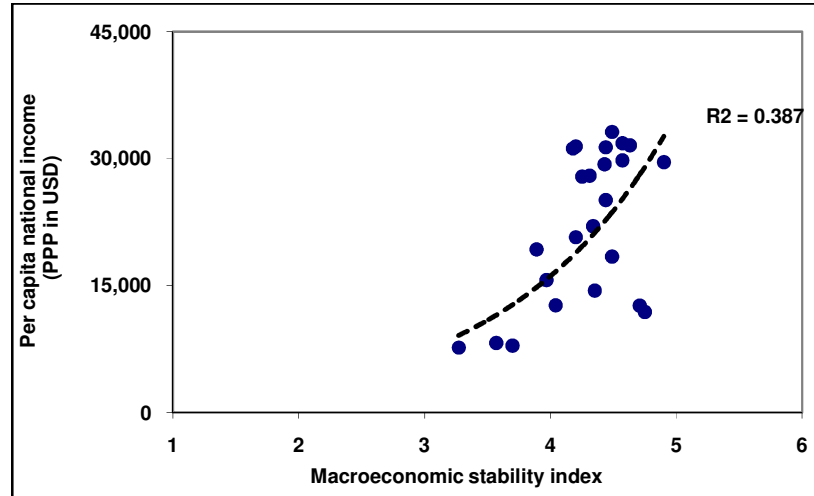
Source: Annex 2 data.

Figure 10. The correlation between the country rating for loans and per capita gross national income (country total).



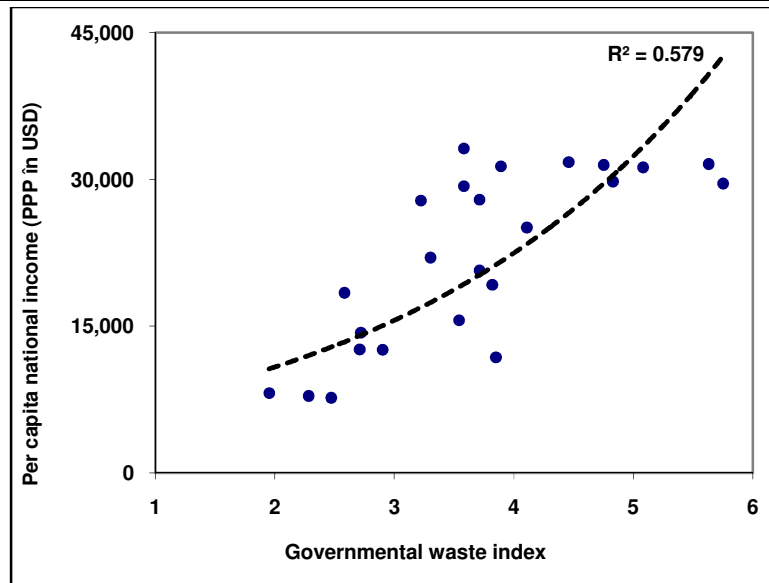
Source: Annex 3 data.

Figure 11. The correlation between the macroeconomic environment index and per capita gross national income (EU countries).



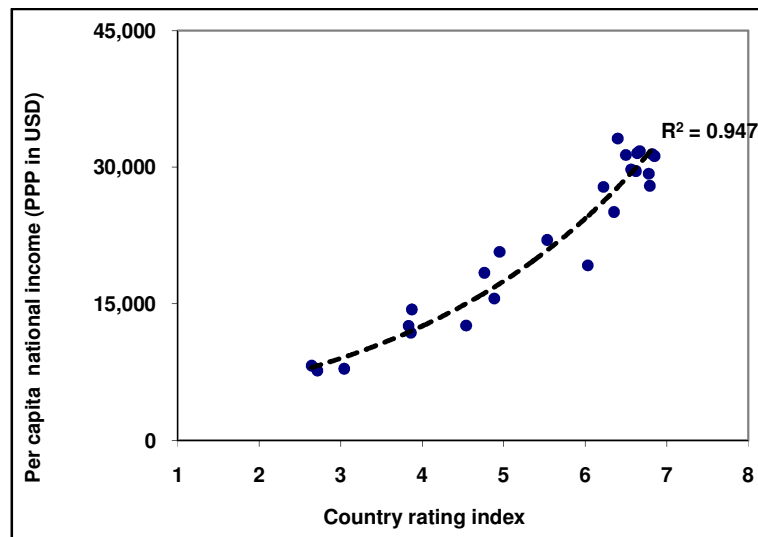
Source: Annex 3 data.

Figure 12. The correlation between the macroeconomic stability index and per capita gross national income (EU countries).



Source: Annex 3 data.

Figure 13. The correlation between the governmental waste index and per capita gross national income (EU countries).



Source: Annex 3 data.

Figure 14. The correlation between the country rating and per capita gross national income (EU countries).

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:		Macro-economic environment	Of which:		
		Contracts and laws	Corruption		Macro-economic stability	Governmental waste	Country rating for loans
A. Country total							
$\beta$	0,81	0,70	0,79	1,02	0,99	0,73	0,54
$\sigma$	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 $\beta$	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							
$\beta$	0,47	0,39	0,46	0,64	0,78	0,36	0,33
$\sigma$	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 $\beta$	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  $\beta$ , 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  $\sigma$ -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.

\*

\* \*

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.

## ANNEXES

## Annex 1

**Per capita gross national income (2004) and the level of development  
of the public institutions and their components (2003)**

No.	Country	Per capita gross national income (PPP in USD)	Public institution index	of which: component sub- indices	
				Contracts and laws ( $x_{p1}$ )	Corruption ( $x_{p2}$ )
1.	Algeria	6.260	3.92	3.85	3.98
2.	Angola	2.030	3.16	2.76	3.56
3.	Argentina	12.460	3.22	2.28	4.15
4.	Australia	29.200	6.36	6.10	6.62
5.	Austria	31.790	5.83	5.47	6.20
6.	Bangladesh	1.980	3.48	2.93	2.04
7.	Belgium	31.360	5.41	5.00	5.82
8.	Bolivia	2.590	3.51	2.93	4.10
9.	Brazil	8.020	4.27	3.92	4.62
10.	Bulgaria	7.870	4.10	2.71	5.50
11.	Cameroon	2.090	3.04	3.02	3.06
12.	Canada	30.660	5.48	4.99	5.98
13.	Chad	1.420	2.36	2.20	2.52
14.	Chile	10.500	5.62	4.93	6.30
15.	China	5.530	4.33	3.81	4.84
16.	Columbia	6.820	4.13	3.16	5.10
17.	Costa Rica	9.530	4.49	4.17	4.81
18.	Croatia	11.670	3.87	3.06	4.68
19.	Czech Republic	18.400	4.51	3.81	5.21
20.	Denmark	31.550	6.56	6.30	6.82
21.	Dominican Republic	6.750	4.05	4.02	4.07
22.	Ecuador	3.690	3.48	2.77	4.18
23.	Egypt, Arab Rep.	4.120	4.18	4.23	4.14
24.	El Salvador	4.980	4.72	3.65	5.79
25.	Ethiopia	810	3.69	3.50	3.89
26.	Finland	29.560	6.52	6.35	6.68
27.	France	29.320	5.50	4.96	6.03
28.	Germany	27.950	6.10	5.80	6.39
29.	Ghana	2.280	3.97	4.07	3.87
30.	Greece	22.000	4.71	4.63	4.79
31.	Guatemala	4.140	3.22	2.33	4.12
32.	Haiti	1.680	2.28	1.91	2.64
33.	Honduras	2.710	2.85	2.50	3.20
34.	Hungary	15.620	5.18	4.52	5.84
35.	India	3.100	4.26	4.65	3.86
36.	Indonesia	3.460	3.63	3.63	3.64

37.	Ireland	33.170	5.46	4.88	6.03
38.	Israel	23.510	5.82	5.39	6.26
39.	Italy	27.860	4.56	4.15	4.96
40.	Jamaica	3.630	3.77	3.38	4.15
41.	Japan	30.040	5.30	4.57	6.04
42.	Jordan	4.640	5.85	5.44	5.72
43.	Kenya	1.050	3.16	3.09	3.22
44.	Korea, Rep.	20.400	5.03	4.72	5.34
45.	Latvia	11.850	4.61	4.37	4.85
46.	Lithuania	12.610	4.71	3.89	5.53
47.	Macedonia, FYRO	6.480	3.11	2.48	3.75
48.	Madagascar	830	3.04	2.84	3.24
49.	Malawi	620	4.79	2.44	5.14
50.	Malaysia	9.630	5.12	4.95	5.28
51.	Mali	980	3.33	3.71	2.96
52.	Mexico	9.590	4.35	3.70	5.00
53.	Morocco	4.100	3.86	3.96	3.76
54.	Mozambique	1.160	3.33	2.89	3.78
55.	Namibia	6.960	4.50	4.33	4.66
56.	Netherlands	31.220	6.02	5.66	6.37
57.	New Zealand	22.130	6.36	6.03	6.69
58.	Nicaragua	3.300	3.57	2.94	4.19
59.	Nigeria	930	2.99	3.17	2.81
60.	Norway	38.550	5.73	5.40	6.06
61.	Pakistan	2.160	3.67	3.46	3.88
62.	Panama	6.870	3.75	3.26	4.23
63.	Paraguay	4.870	3.01	2.29	3.73
64.	Peru	5.370	4.27	3.19	5.34
65.	Philippines	4.890	3.29	3.20	3.39
66.	Poland	12.640	4.17	3.59	4.75
67.	Portugal	19.250	5.52	5.22	5.81
68.	Romania	8.190	3.27	2.97	3.58
69.	Russia	9.620	3.34	2.74	3.94
70.	Senegal	1.720	3.64	3.40	3.88
71.	Singapore	26.590	6.28	5.89	6.68
72.	Slovakia, Republic	14.370	4.33	3.42	5.24
73.	Slovenia	20.730	5.11	4.44	5.78
74.	South Africa	10.960	4.69	4.51	4.87
75.	Spain	25.070	5.28	4.46	6.09
76.	Sri Lanka	4.000	3.70	3.57	3.84
77.	Sweden	29.770	6.28	6.00	6.55
78.	Switzerland	35.370	6.20	5.87	6.53
79.	Thailand	8.020	4.97	4.88	5.06
80.	Tunisia	7.310	5.19	5.20	5.18
81.	Turkey	7.680	4.07	4.03	4.12
82.	Uganda	1.520	3.30	3.35	3.24
83.	Ukraine	6.250	3.09	2.57	3.61
84.	United Kingdom	31.460	6.01	5.67	6.35
85.	USA	39.710	5.71	5.42	6.01



---

86.	Uruguay	9.070	5.31	4.74	5.89
87.	Venezuela	5.760	3.21	2.27	4.15
88.	Vietnam	2.700	4.11	4.00	4.22
89.	Zambia	890	3.86	3.92	3.79
90.	Zimbabwe	2.180	3.21	2.64	3.77

*Source:* World Economic Forum.

**Annex 2**

**Per capita gross national income (2004) and the level  
of development of the institutions in relation to the macroeconomic  
environment and its components (2003)**

No	Country	Per capita gross national income (PPP in USD)	Macro- economic average index	of which: component sub-indices		
				Macro- economic stability	Governmental waste	Country rating for loans
1.	Algeria	6.260	3.78	4.91	2.68	2.60
2.	Angola	2.030	2.22	2.73	2.07	1.35
3.	Argentina	12.460	2.61	3.58	2.03	1.26
4.	Australia	29.200	5.15	4.64	5.18	6.15
5.	Austria	31.790	5.07	4.57	4.46	6.67
6.	Bangladesh	1.980	3.20	4.19	2.18	2.24
7.	Belgium	31.360	4.82	4.44	3.89	6.50
8.	Bolivia	2.590	2.90	3.66	1.89	2.41
9.	Brazil	8020	3.16	3.38	3.07	2.80
10.	Bulgaria	7.870	3.18	3.70	2.28	3.04
11.	Cameroon	2.090	3.10	4.13	2.47	1.65
12.	Canada	30.660	5.04	4.71	4.11	6.62
13.	Chad	1.420	2.50	3.31	2.08	1.31
14.	Chile	10.500	4.36	4.49	3.64	4.83
15.	China	5.530	4.56	5.05	3.66	4.49
16.	Columbia	6.820	3.33	3.94	2.54	2.90
17.	Costa Rica	9.530	3.38	3.50	3.19	3.36
18.	Croatia	11.670	3.71	4.24	2.82	3.55
19.	Czech Republic	18.400	4.08	4.49	2.58	4.76
20.	Denmark	31.550	5.38	4.63	5.63	6.64
21.	Dominican Republic	6.750	3.27	3.81	2.76	2.71
22.	Ecuador	3.690	2.72	3.49	2.02	1.88
23.	Egypt, Arab Rep.	4.120	3.70	4.02	3.44	3.34
24.	El Salvador	4.980	3.84	4.40	3.40	3.18
25.	Ethiopia	810	2.89	3.79	2.71	1.28
26.	Finland	29.560	5.54	4.90	5.75	6.62
27.	France	29.320	4.80	4.43	3.58	6.78
28.	Germany	27.950	4.78	4.31	3.71	6.79
29.	Ghana	2.280	3.29	3.87	3.40	2.02
30.	Greece	22.000	4.38	4.34	3.30	5.53
31.	Guatemala	4.140	2.85	3.49	1.83	2.58
32.	Haiti	1.680	2.45	3.30	1.82	1.39
33.	Honduras	2.710	2.77	3.49	2.05	2.07
34.	Hungary	15.620	4.09	3.97	3.54	4.88
35.	India	3.100	3.75	4.36	2.56	3.74

36.	Indonesia	3.460	3.37	3.98	3.50	2.01
37.	Ireland	33.170	4.74	4.49	3.58	6.40
38.	Israel	23.510	3.93	3.67	4.17	4.22
39.	Italy	27.860	4.48	4.25	3.22	6.22
40.	Jamaica	3.630	2.83	3.34	2.34	2.32
41.	Japan	30.040	4.57	4.61	2.98	6.06
42.	Jordan	4.640	4.03	4.40	4.34	2.97
43.	Kenya	1.050	3.10	4.10	2.40	1.80
44.	Korea, Rep.	20.400	4.67	4.90	3.80	5.08
45.	Latvia	11.850	4.31	4.75	3.85	3.86
46.	Lithuania	12.610	4.04	4.71	2.90	3.83
47.	Macedonia, FYRO	6.480	3.01	3.94	2.35	1.80
48.	Madagascar	830	3.04	3.39	2.33	n/a
49.	Malawi	620	2.49	2.85	2.65	1.61
50.	Malaysia	9.630	4.49	4.77	3.97	4.44
51.	Mali	980	2.67	3.36	2.38	1.58
52.	Mexico	9.590	3.74	3.81	2.96	4.39
53.	Morocco	4.100	3.95	4.42	3.46	3.51
54.	Mozambique	1.160	2.57	3.15	2.33	1.64
55.	Namibia	6.960	3.75	4.29	3.37	3.04
56.	Netherlands	31.220	5.07	4.18	5.08	6.85
57.	New Zealand	22.130	4.98	4.58	4.86	5.91
58.	Nicaragua	3.300	2.45	3.01	2.26	1.53
59.	Nigeria	930	3.16	4.45	2.08	1.65
60.	Norway	38.550	5.43	5.15	4.59	6.82
61.	Pakistan	2.160	3.40	4.59	2.73	1.69
62.	Panama	6.870	3.59	4.32	2.32	3.41
63.	Paraguay	4.870	2.65	3.31	1.71	2.26
64.	Peru	5.370	3.61	4.52	2.60	2.81
65.	Philippines	4.890	3.52	4.33	2.11	3.31
66.	Poland	12.640	3.83	4.04	2.71	4.54
67.	Portugal	19.250	4.41	3.89	3.82	6.03
68.	Romania	8.190	2.93	3.57	1.95	2.64
69.	Russia	9.620	3.44	4.04	2.46	3.19
70.	Senegal	1.720	3.33	4.19	2.74	2.19
71.	Singapore	26.590	5.69	5.16	6.12	6.31
72.	Slovakia, Republic	14.370	3.82	4.35	2.72	3.87
73.	Slovenia	20.730	4.27	4.20	3.71	4.95
74.	South Africa	10.960	4.08	4.38	3.61	3.95
75.	Spain	25.070	4.83	4.44	4.11	6.35
76.	Sri Lanka	4.000	3.35	3.85	2.99	2.70
77.	Sweden	29.770	5.13	4.57	4.83	6.56
78.	Switzerland	35.370	5.31	4.78	4.69	7.00
79.	Tanzania	660	3.12	3.61	3.47	1.80
80.	Thailand	8.020	4.54	5.28	3.67	3.94
81.	Tunisia	7.310	4.38	4.46	4.77	3.83
82.	Turkey	7.680	2.93	3.27	2.47	2.71

83.	Uganda	1.520	3.20	4.14	2.79	1.75
84.	Ukraine	6.250	3.27	4.37	2.30	2.04
85.	United Kingdom	31.460	4.99	4.20	4.75	6.82
86.	USA	39.710	4.94	4.23	4.44	6.86
87.	Uruguay	9.070	2.75	2.42	3.67	2.48
88.	Venezuela	5.760	2.59	3.21	1.63	2.33
89.	Vietnam	2.700	3.87	4.65	3.57	2.61
90.	Zambia	890	2.49	3.16	2.32	1.35
91.	Zimbabwe	2.180	1.98	2.56	1.78	1.00

Source: World Economic Forum.



## Annex 3

**Per capita gross national income (2004) and the level  
of development of the public institutions, macroeconomic environment  
and their components (2003) (EU countries)**

No.	Country	Per capita gross national income (PPP in USD)	Public institution index	of which: component sub-indices		Macro-economic environment index	of which: component sub-indices		
				Contracts and laws (x <sub>p1</sub> )	Corruption (x <sub>p2</sub> )		Macro-economic stability	Govern-mental waste	Country rating for loans
1	Austria	31790	5.83	5.47	6.2	5.07	4.57	4.46	6.67
2	Belgium	31360	5.41	5	5.82	4.82	4.44	3.89	6.5
3	Bulgaria	7870	4.1	2.71	5.5	3.18	3.7	2.28	3.04
4	Czech Republic	18400	4.51	3.81	5.21	4.08	4.49	2.58	4.76
5	Denmark	31550	6.56	6.3	6.82	5.38	4.63	5.63	6.64
6	Finland	29560	6.52	6.35	6.68	5.54	4.9	5.75	6.62
7	France	29320	5.5	4.96	6.03	4.8	4.43	3.58	6.78
8	Germany	27950	6.1	5.8	6.39	4.78	4.31	3.71	6.79
9	Greece	22000	4.71	4.63	4.79	4.38	4.34	3.3	5.53
10	Hungary	15620	5.18	4.52	5.84	4.09	3.97	3.54	4.88
11	Ireland	33170	5.46	4.88	6.03	4.74	4.49	3.58	6.4
12	Italy	27860	4.56	4.15	4.96	4.48	4.25	3.22	6.22
13	Latvia	11850	4.61	4.37	4.85	4.31	4.75	3.85	3.86
14	Lithuania	12610	4.71	3.89	5.53	4.04	4.71	2.9	3.83
15	Netherlands	31220	6.02	5.66	6.37	5.07	4.18	5.08	6.85
16	Poland	12640	4.17	3.59	4.75	3.83	4.04	2.71	4.54
17	Portugal	19250	5.52	5.22	5.81	4.41	3.89	3.82	6.03
18	Romania	8190	3.27	2.97	3.58	2.93	3.57	1.95	2.64
19	Slovakia	14370	4.33	3.42	5.24	3.82	4.35	2.72	3.87
20	Slovenia	20730	5.11	4.44	5.78	4.27	4.2	3.71	4.95
21	Spain	25070	5.28	4.46	6.09	4.83	4.44	4.11	6.35
22	Sweden	29770	6.28	6	6.55	5.13	4.57	4.83	6.56
23	United Kingdom	31460	6.01	5.67	6.35	4.99	4.2	4.75	6.82
24	Turkey	7680	4.07	4.03	4.12	2.93	3.27	2.47	2.71

Source: World Economic Forum.

## BIBLIOGRAPHY

1. Ahsan, Syed M., Melania Nica, 2005, *Growth, Integration and Institutions in Eastern Europe and Former Soviet Union (EEFSU)*, Concordia University, April.
2. Ahsan, Syed M., 2001, *Institutional Framework and Poverty: A Transition Economy Perspective*, Department of Economics, Concordia University.
3. Anderson, J.E., Eric van Wincoop, 2004, *Trade Costs*, NBER Working Paper Series.
4. Arrow, K.J., 1970, "The Organization of Economic Activity: Issues Pertinent to the Choice of Market versus Non-market Allocation" in Robert Hameman and Julius Margelis, eds. *Public Expenditure and Policy Analysis*, Chicago, Markham.
5. Campos, Nauro F., Coricelli Fabrizio, 2002, "Growth in Transition: What We Know, What We Don't, and What We Should", *Journal of Economic Literature*, Vol. XL (September), pp. 793-836.
6. Ciupagea, C-tin, et al., 2006, "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), pp. 57-58.
7. Coleman, J., 1988, "Social Capital an the Creation of Human Capital", *American Journal of Sociology*, 94 (supplement), pp. 94-120.
8. Edwards, Sebastian, Miguel A. Savastano, 1998, *Exchange Rates in Emerging Economies: What Do We Know? What Do We Need to Know?* Stanford University Conference on "Economic Policy Reform", Sept. 17-19.
9. Fudulu, P. et al., 2006,  *Direcții necesare de dezvoltare instituțională (adâncire) a UE în raport cu dezvoltarea sa pe orizontală (extindere)*, Studii de impact III, Institutul European din România, București.
10. Fuera, A., Steliana Sandu et al., 2006, "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.
11. Garelo, Pierre, Nikolay Nenovsky, 2003, *Reflections on the evolution of institutions in post-communist countries*, internet.
12. Hall, Robert E., Charles I. Jones, 1996, *The Productivity of Nations*, Center for Economic Policy Research, Stanford.
13. Hall, Robert E., Charles I. Jones, 1999, "Why Do Some Countries Produce So Much More Output per Worker than Others?", *The Quarterly Journal of Economics*, vol. 114, No. 1 (February), 83-116.
14. Havrylyshyn, Oleh, Ron van Rooden, 2000, *Institutions Matter in Transition, but So Do Policies*, IMF Working Paper, WR/00/70.
15. Havrylyshyn, Oleh, 2001, *Recovery and Growth in Transition: A Decade of Evidence*, IMF Staff Papers.
16. Iancu, Aurel, 1998, *Bazele teoriei politicii economice*, All-Beck, București.
17. Iancu, Aurel, 2000, *Politică și economie. Repere ale unui sistem economic performant*, Editura Expert, București.
18. Lin, Justin Yifa and Jeffrey B. Nugent, 1995, "Institutions and Economic Development", in J. Behrman and T.N. Srinivasan, eds, *Handbook of Economic Development*, vol. 3A, North-Holland, Amsterdam.
19. Kaufman, Daniel, Aart Kraay, Pablo Zoido-Lobaton, 1999, *Governance Matters*, Policy Research Working Paper, The World Bank.
20. Mankiw G., D. Romer, D. Weil, 1992, "A Contribution to the Empirics of Economic Growth", *The Quarterly Journal of Economics*, vol. 107, No. 2, May, 407-437.
21. Matthews R.C.O., 1986, "The Economics of Institutions and the Sources of Growth", *The Economic Journal*, vol. 96, No. 384 (December), 903-918.

22. Murphie, Andrew, John Potts, 2003, *Introduction: "Culture" and "Technology"*, Palgrave, Macmillan.
23. Nelson, Richard R., 2002, "Bringing Institutions into Evolutionary Growth Theory", *Journal of Evolutionary Economics*, 12: 17-28.
24. North, Douglas C., 1990, *Institutions, Institutional Change and Economic Performance*, New York, Cambridge University Press.
25. O'Connor, Julia S., 2005, *Dimensions of Socio-Economic Convergence in the European Union: Convergence of What?*, 9 May.
26. Olson, M., 1982, *The Rise and Decline of Nations*, Yale University Press,.
27. Pelikan, Pavel, 2003, "Bringing Institutions into Evolutionary Economics: Another View with Links to Changes in Physical and Social Technologies", *Journal of Evolutionary Economics*, 13, 237-258.
28. Prisecaru, Petre, 2001, *Teoria integrării economice europene*, Ed. Sylvi, București.
29. Raiser, Martin et al., 2001, *Social Capital in Transition: A First Look at the Evidence*, European Bank, Working Paper, No. 61.
30. Rodrik, Dani, Arvind Subramanian, Francesco Trebbi, 2002, *Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development*, Working Paper, 9305, National Bureau of Economic Research.
31. Rodrik, Dani, 1999, *Institutions for High-Quality Growth: What They Are and How to Acquire Them*, International Monetary Fund Conference.
32. Rodrik, Dani, 2003, *Growth Strategies*, Working Paper No. 0317, December, Department of Economics, Johannes Kepler University of Linz.
33. Sachs, Jeffrey, 1995, Andrew Warner, *Economic Convergence and Economic Policies*, Center for Social & Economic Research, Warsaw, April.
34. Schularick, Moritz, 2002, "Six Months to Copenhagen: Convergence Process Supports Road Map for Enlargement", *EU Enlargement Monitor*.
35. Williamson, O.E., 1985, *The Economic Institutions of Capitalism*, The Free Press, New York.
36. Winiecki, 2000, "Formal Rules, Informal Rules and Economic Performance" (in *Economic Development and Growth Papers*), *Acta Oeconomica*, vol. 51(2), pp. 147-172, 3, April 2001.