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Public Integrity, Economic Freedom and Governance Performance. A Comparative Study for the EU Member States and Acceding Countries

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Abstract

The studies concerning the impact of corruption on the effectiveness of governance are numerous, valorising profound approaches, based on criteria and standards related to good governance, organizational behaviour.
The concepts and mechanisms specific for econometrics and statistics provide the quantitative support for qualitative analyses, substantiating public policies, in view to assure effectiveness in performance measurement.
For EU Member States and acceding countries, the level of development and social organization determines specific ethical behaviours.
In this context, the current paper aims a comparative economic and social evaluation of the correlations between corruption, performance and economic freedom in the states mentioned, following the various significant stages of the EU enlargement.

The working hypotheses turn into consideration the following issues:

- Corruption holds national specific character and the statistic, econometric or sociologic analyses reveal that it is stable during time.
- The climate of economic freedom and the intensity of corruption influence powerfully the economic performance.
- The EU membership, "seniority" in EU, regional context determine different attitudes and perceptions on the corruption phenomena.
- For the newer EU states or the acceding countries, the strategies of integrity have mimetic character and the National Integrity Systems have structured powerful connections aimed at determining an action focused on public integrity.

In the analyses achieved, the EU is approached globally, at least from statistic point of view, and the conclusions aim situations specific to the groups of states that have been or will be the beneficiaries of the EU enlargement.

The quantitative analyses use both own results of the researches carried out by the authors and public results of World Bank or Heritage Foundation, as well as results of authorities responsible for national statistics.

The paper uses the theoretical framework described by authors in other papers with similar topic. For the current paper, the distinction consists in the correlation of the analyses with the stages of the EU enlargement.

Key words: public integrity, corruption, governance performance, economic freedom

I The governance performance

I.1. A Systemic Framework

The issue of governance performance is more and more present in the field literature. Regarded as a finality of a complex public management process, the governance performance, we refer either to the central, or to the local government, acquires systemic characteristics and, according to their level, the governors establish the feedback that is carried put through new public decisions meant to lead towards a performance improvement.

The concerns for a systemic modelling of the public management can be met both when the issue of the public administration comes out (Pierre, 1995) and, lately, the public management reform[1] (Pollitt and Bouckaert, 2000). A brief presentation of some systemic models used in the public management of the local development is also made by Matei (2008). Referring to the performance oriented managerial reforms, Pollitt (1995; 1998) shows that, for the public sector "the organisations must redirect in order to focus more on results. These have to take into account the costs, to measure the outputs, to assess the effects and to use all this information in a systemic process of feedback and continuous improvement".[2]

The most relevant and recent point of view respecting the systemic approach of the public sector performance is presented by Bouckaert and Halligan (2008). Following a logical sequence of building a complex systemic model of the public sector performance, the mentioned authors described micro, meso and macro models, integrated or individual, that can deliver the proper framework for understanding and study thoroughly the specified concept.[3] The result of this measure is a complex system, with mixed architecture that includes more cycles of intermediary feedback and that integrates "four positions on managing performance: Performance Administration, Management of Performance, Performance Management and Performance Governance".[4] In this context, the governance performance can be seen as a subsystem of the public sector performance or, more, of the managerial performance. The specific of the governance performance is also that of being a result of the interaction between public economic systems and that of the public management. Thus, the fundamental concepts as the public intervention, public decision, optimisation, and so on, become adjacent and determinant for the level of the governance performance.

I.2. Present approaches

Bouckaert and Halligan (2008) make an international comparison related to "managing performance". The statistical ratios and/or connections between management the performance, in the context of the public sector, become determinant both for the understanding of the processes of performance's management, and for the governance performance.

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[1] Pollitt, Ch., Bouckaert, G., (2000), "Public Management Reform: A Comparative Analysis", Oxford University Press, Epigraf Publishing House, pp. 39.
[2] Idem, pp. 154.
[3] Bouckaert, G., Halligan, J., (2008), "Managing Performance. International Comparisons", Routledge, London and New York, pp. 11 – 34.
[4] Idem, pp. 32.

The general approach framework of this issue is delivered by the New Public Management (Hood, 1995) or by "reinventing government" (Osborne and Gaebler, 1992).

A broad and generic definition of performance – based public management is taking/allocating responsibility for the performance of the system and being accountable for its results.[5]
Hannagan (2008), referring to the performance management in an organisation, states that "the term *performance management* means different practices to different managers but usually includes the following elements:

- The organisation has a shared of its objectives, or a mission statement or corporate objectives, which it communicates to its employees;
- Individual performance management targets are set which are related to the organisational objectives;
- A regular, formal review is carried out to monitor progress toward the objectives;
- The review process is used to identify training needs, career development and possible rewards;
- The effectiveness of the whole process is evaluated against the overall performance of the organisation".[6]

Important and constant concerns this time with regard to the performance of the public sector can be also found in the UN Public Administration Programme[7], which in the 2005and 2008 reports presents both the public sector performance (WPSR, 2005), and the issue of the public governance (WPSR, 2008). Thus, WPSR (2005) focuses upon the way in which the human potential will be transformed in order to improve the performance of the public sector. The general context in which the stated issue is approached is characterised, on one hand, by the complexity of the policy making processes and of the public strategies and, on the other hand, by the deterioration of the human resources capacities of accomplishing these functions. The aspects set forth render difficult, for many states, the application of the national objectives and strategies for increasing the governance performance through poverty and corruption reduction, promoting the sustainable human development as it is underlined in the Millennium Development Goals (MDGs).[8]
WPRS (2008) emphasizes the role of the civic engagement in the public governance process. By presenting several case studies, it is being emphasised, in a real manner, the role of the different practices in consolidating the governance capacity through transparency and responsibility. In the context, the relations between the power and the civil society organisations are tackled, as well as the necessity of adopting methodologies and strategies proper for each state's condition for a successful civic engagement in the public governance.
The mentioned technical support is also offered by the analysis made by Willmore (2005).

The World Bank has achieved comprehensive theoretical and experimental studies in the last decades. In view of our study, the papers of Kaufman, Kraay and Zoido-Loboton (2009), as well as the previous ones approaching the so called "governance matters" are relevant. The above papers comprise "six new aggregate measures capturing various dimensions of governance that provide new evidence of a strong causal relationship from better governance to better development outcomes".

[5] Idem, pp. 32.
[6] Hannagan, T., (2008), "Management. Concepts & Practices", Prentice Hall, pp. 294.
[7] See http://unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN.pdf
[8] A more detailed presentation of these aspects can be found in the UN Millennium Declaration, http://222.un.org/millenniumgoals/bkgd.shtml

The six indicators correspond to six basic governance concepts: voice and accountability, political instability and violence, government effectiveness, regulatory burden, rule of law and graft.

I.3 An empirical support of analysis for governance performance in the EU

The current study cannot aim an exhaustive approach of governance performance in the EU. Our vision and approach are restrictive and use GDP per capita as single indicator.
27 EU Member States as well as 4 acceding states (Croatia, Turkey, Macedonia and Iceland) represent the target group that will be discussed.

Annex 1 presents GDP per capita during 1999 – 2009.
The evolution of the EU enlargement had different effects concerning GDP per capita at EU level.
Two major conclusions may be extracted from the data presented. Firstly, for all states, especially those that accessed since 2004, GDP per capita has been in a visible growth, the moment of accession to the EU representing a "jump", fact that also influenced the economic results.
On the other hand, in statistic view, the level of GDP per capita at EU level has decreased however related to the one recorded by EU 15.

Table 1 presents the GDP theoretical levels in three hypostases of the EU – EU15, EU25, EU27 – and in the fourth hypostasis, taking also into consideration the possible enlargement EU31.

Table 1. GDP per capita in various hypostases of the EU enlargement
(GDP per capita in US dollars, current market prices)

Year	**EU15**	**EU25**	**EU27**	**EU31**
1999	23561.04	21573.86	20651.15	19980.11
2000	25182.18	23026.31	22021.95	20249.90
2001	26432.02	24186.94	23143.83	21154.85
2002	27357.70	25077.84	23999.20	21903.67
2003	27886.45	25617.36	24529.98	22379.20
2004	29078.42	26774.81	25655.64	23516.24
2005	30258.85	27899.54	26724.20	24597.28
2006	31839.61	29405.52	28174.45	26005.50
2007	33463.06	30975.34	29697.74	27420.04
2008	34001.78	31625.75	30324.57	28036.06
2009	33871.86	31592.45	30259.90	27666.11

Analysing the correlations and influences of the groups of representative states in the four hypostases presented (Annex 2), one may remark that in spite of the decrease of GDP per capita, the correlations are powerfully comprised between 0.886 (between EU25_15_GDP and EU31_27_GDP) and 1. Therefore, the trend of economic growth is similar for the states analysed.

I.4 The integrity, as a governance principle in the public sector

Along with the UN concerns there are also the ones of the World Bank, who dedicate numerous studies both to the researches regarding the Governance Indices and the Public Sector Governance. The concern of the present paper is situated at the meeting point of the two mentioned topics. Worth to be mentioned, from the point of view of the World Bank, are the governance principles in the public sector, which are referring to:

- Responsibility – according to which the public authority is responsible for the decisions and promotes mechanisms that ensure the application of public management high standards;
- Transparency/ openness – that expresses the public authority capacity regarding the roles and responsibilities assumed, as well as the decision-making procedures and the power exercise;
- Integrity – with reference to the public and personal, impartial, ethical action, and in the interest of the public authority;
- Stewardship – imposing the use of each opportunity for developing the public assets;
- Efficiency – ensuring the best use of resources in order to accomplish the organisation's objectives;
- Leadership – applied through a commitment for good governance.[9]

All these principles lead to a public governance approach that would allow obtaining some superior results, in terms of efficiency and with a high performance.[10]

In the view presented in the above papers, the public sector governance includes: "…the set of responsibilities and practices, policies and procedures, exercised by an agency's executive, to provide strategic direction, ensure objectives are achieved, manage risks and use resources responsibly and with accountability".[11] We used this approach of the concept of public sector governance giving the practical approach manner and turning account of the possible connections with the second part of the paper referring to integrity and economic freedom. The State Services Authority (SSA) from Australia addresses the issue in the same manner, accentuating the public integrity among the main pillars of public integrity, assuming the "promotion of high integrity and conduct standards in the public sector".[12] Similar stands took the Association of Chartered Certified Accountants (ACCA), emphasising the fact that "the governance can also cover the behaviour standards, the organisational structures and the processes".[13]

At the same time, OECD states that "good, effective public governance helps to strengthen democracy and human rights, promote economic prosperity and social cohesion, reduce poverty, enhance environmental protection and the sustainable use of natural resources, and deepen confidence in government and public administration".[14] The real issue of public integrity is

[9] ANAO, (2003), "Public Sector Governance", Volumes 1&2: Better Practice Guide, Commonwealth of Australia, Canberra, pp.2.
[10] For details and explanations can be seen also Australia Public Service Commission, (2005), "Foundations of Governance in the Australian Public Service", Commonwealth of Australia, Canberra, http://www.apsc.gov.au/foundations/
[11] ANAO and Department of the Prime Minister and Cabinet, (2006), "Implementation of Programme and Policy Initiatives: Making Implementation Matter, Better Practice Guide, Commonwealth of Australia, Canberra, pp. 13, http://www.anao.gov.au/uploads/documents/"
[12] "Public Sector Standards Commissioner (PSSC), Ethics framework", http://www.ssa.vie.gov.au/
[13] http://www.accaglobal.com/.../activities/subjects/publicsector/governance/
[14] OECD, (2009), "Public Governance and Management", http://www.oecd.org, pp.1.

developed by OECD, in this very moment a global forum is being organised with regard to "building integrity in government".[15]

II The corruption, integrity and economic freedoms.

As it was also shown in the 1st chapter of the present paper there are several indices of the governance performance. We will keep in mind as indices, as Prohnițchi (2003) does too, the Gross Domestic Product (GDP) per inhabitant, as well as the economic freedom (IEF). The mentioned author reaffirms the conclusions of the World Bank or Transparency International, according to which "the poorer the country and the more reduced is the economic freedom, the more corrupt is its bureaucratic and political system".[16] The present study perspective determines us to take into account many organisations' analysis based on the conclusion that the "concern about the negative social and economic impact of corruption has grown rapidly in both emerging and advanced democracies".[17]

The conclusion is also supported by the World Bank who identifies the concept "as the single greatest obstacle to economic and social development. It undermines development by distorting the rule of law and weakening the institutional foundation on which economic growth depends". [18] A similar position is that of the International Monetary Fund, which states that "many of the causes of corruption are economic in nature, and are its consequences – poor governance clearly is detrimental to economic activity and welfare".[19]

The development of theoretical and empirical studies has not always been the cause and effect type, between corruption and economic performance.
Worth mentioning here are the comments made by Rose-Ackerman (2009) with regard to the conclusions expressed by different specialists and analysts of the corruption issue.[20]
Mauro (1995, 1998) demonstrates that the high corruption levels are associated with low investment levels as part of GDP.

The corruption indices are extremely isolated from the bureaucratic efficiency, as for example the level of bureaucracy and judicious quality. As a consequence, Mauro was incapable of measuring the marginal effect of each of these measures. By putting together the separated indices in a measure of bureaucratic efficiency (on a scale from one to ten): "if Bangladesh, with a score of 4.7 would have improved the integrity and the bureaucratic efficiency at Uruguay's level, 6.8, its investment rate would increase with approximately five percentage points and the annual growth rate of GDP would increase with almost half of a percentage point" (Mauro, 1998). Also, Mauro proves that the extremely corrupted countries tend to under-invest in human capital, spending less

[15] Details regarding the recent concerns of OECD about promoting governance integrity can be found, for example, in "Building a Clearer World: Tools and Good Practices for Fostering a Culture of Integrity" (2009), Paris, http://www.oecd.publicgovernanceforum.org/, or "OECD Recommendation on Enhancing Integrity in Public Procurement", (2008), http://www.oecd.org/document/...html.
[16] Prohnițchi, V., (2003), "Contextul economic şi instituțional al corupției", Analytic Report, RA/1, TISH Publishing House, pp. 31. http://www.transparency.org/
[17] Akai, N., Horinchi,Y., Sakata, M., (2005), "Short-run and Long-run Effects of Corruption on Economic Growth: Evidence from State-Level Cross-Section Data for the United States", CIRJE – F – 348, http://www.e.n-tokyo.ac.jp/cirje/research/
[18] http://www.worldbank.org/
[19] http://www.imf.org/external/pubs/ft/issues6/
[20] Rose-Ackerman, S., (2005), "Corruption and Government. Causes, Consequences and Reform", Cambridge University Press, pp. 3.

on education. Mauro argues that this fact happens because the education delivers less work opportunities for corruption than other types of capital-intensive public expenditures.

Ades and Di Tella (1997) state that an aggressive industrial policy could be motivated, on a certain extent, by the corrupt gains made available by that policy. In such cases, the positive direct effect of the policy could be submitted by its role in the increase of corruption, thus discouraging the investments. Their empirical results demonstrate that, in presence of corruption, the positive influence of the industrial policy is reduced to a half.

Also, for public integrity we end up choosing the corruption perceptions index (TI) computed by Transparency International in the last decade, for the South-Eastern Europe states[21], as well as the KKM index (control of corruption) computed by the World Bank, for the same sample and period, as aggregated and individual governance index. The two used indices express, in different ways, the perception upon the way in which the public power exercise has an impact upon the private sector profit, including both the narrow and the wide corruption form, as well as "capturing" the states by the elites and the personal interests.

II.1 Corruption and governance

One of the fundamental papers presenting the indissoluble link between the corruption and the governance is that of Rose-Ackerman (2005) that eloquently proves how the high level of corruption limits the investment and the economic growth and leads to the government's inefficiency.

For the developing countries, as well as for those being in transition from socialism, the risk is higher. The mentioned author identifies the corruption phenomenon as a complex one of economic[22], cultural[23] and political[24] nature.

Also, a series of classical papers must be mentioned, having as object the identification of causes and mechanisms of corruption transmission inside a economic and social system, form which we mention: Krueger (1974), Rose-Ackerman (1975), Mauro (1995), Tanzi (1998), etc. in the field literature four categories of factor are identified, which directly influence the corruption in a system:, historical factors, social and cultural factors and economic factors. In the political and juridical factors category we include the quality of the political system, the features of the juridical system (Leite and Weidmann (1999)), especially the legislation and the institutions specialised in the fight against corruption, the quality of the democratic system, the features of the electoral system in a country, the features of the administrative system, the degree of administrative decentralisation in a country etc. A series of studies, like La Porta (1999) and Treisman (2000) accentuate the influence of the traditions and historical factors upon the level of corruption in a country and the features of the mechanisms of its development and transmission. The social and cultural factors have a special role in accentuating the corruption features in a country (La Porta (1999), Treisman (2000), Alesina (2003)). Equally, the religious factor play an important part in spreading the corruption on a social system level. The economic factors, as well as the openness level of the economy (for example Dreher (2003), Treisman (2000), Wei (2001)), the size of the public sector (Tanzi (1998), Treisman (2000)), the salaries' level in the public sector (van Rijckeghem and Weber (1997)) etc. directly influence the corruption level in a country.

[21] http:/www.transparency.org/

[22] See more details in Rose-Ackerman, S., (2005), "Corruption and Government Causes, Consequences and Reform", part I, chapters 1-5, pp. 7-89.

[23] Rose-Ackerman, S., (2005), op.cit., part II, chapter 6, pp. 89-111.

[24] Rose-Ackerman, S., (2005), op.cit., part III, chapter 7-9, pp. 111-175.

Another important aspect when studying corruption is choosing the most appropriate econometric models for estimating its effects upon some sectors of activities. From the most important research directions that target the estimation of corruption's effects upon the economic and social environment, we mention:

(i) Measuring the corruption effect upon the economic growth (Mauro (1995), Abed and Davoodi (2000), Krueger (1974));
(ii) The corruption's effects upon the development of some sectors of national economies (Tanzi (1998), Wei (2001));
(iii) The effects of the decentralisation process upon the level and the mechanisms of corruption transmission in a system (Shah (2006)) etc.;
(iv) The consequences of corruption upon the financing systems of some activity sectors, like the military one, Gupta (2001), the salaries in the public sectors (van Rijckeghem and Weber (1997)).

For the states in South-Eastern Europe, with special reference to Romania, we remark the papers of Andrei, Matei and Rosca (2009), as well as Andrei, Matei, Stancu and Andrei (2009), approaching the effects of corruption in the public administration systems, education or health, formulating econometric models for evaluating performance in the public sector.

II.2 Public Integrity Systems

The first chapter of the paper approached the relation between integrity and performance of governance. The National Integrity Systems (NIS) represent an important instrument for promoting public integrity.[25]
In Transparency International (TI) conception, the National Integrity Systems (NIS) comprise "key institutions, laws and practices (the 'pillars") that contribute to integrity, transparency and accountability in a society. " [26]
The perspectives of the analysis and modelling the corruption phenomena, aimed by our paper, are supported by the country studies that provide both an overview on NIS, the indicators for measuring the subsequent progresses from those countries, as well as a basis of comparisons among states.
The above mentioned country study asserts: "when it functions correctly, NIS fights against corruption as part of a broader fight against the abuse of power, breaking the law and fraud under all its forms".

II.2.1 Stages in developing the National Integrity System in Romania

1990 – 1998

- The period coincides with the first half of the transition period;
- The main exponents of the national public integrity were the Parliament and Government, that did not elaborate a public policy to promote the public integrity;

[25] The broad description of the relations between public integrity and corruption concerning the South-Eastern European states is presented in Matei, A., (2008), "Corruption, Transparency and Quality. Comparative Approaches and Judiciary Support; Themis Project "Transformation of the Role of the Judiciary within a European Integrated Context", Bibliothéque de Droit Public Européen, vol LXXXV, Esperia Publications Ltd, London, pp. 127-142
[26] "National Integrity System. Country Study. Romania 2005, Transparency International Romania, p 1.

- The Judiciary had no capacity to adjust the deficiencies of the other 2 powers in the state;
- The social perception on the public pillars reveals a high degree of corruption, just in the interior of most of the public integrity pillars;
- The civil society was not concerned with corruption, focusing on ensuring the basic requirements of democracy, rule of law and respect for human rights;
- The international institutions were concerned about the economic and democratic reforms.

1999 – 2004

- The second stage coincides with the beginning of the negotiations of accession into the European Union;
- The international agencies have expressed their interest towards the Romanian public integrity system (programmes were initiated and political pressures were exerted for reforms);
- The main pillars of integrity – the Executive and Legislative – have realised the seriousness of the national corruption level;
- In 2001, the Government elaborated a National Anticorruption Strategy and the National Anticorruption Prosecutor's Office was set up;
- Other NIS pillars were strengthened, such as Ombudsman or Court of Accounts.
- The progresses have determined Romania to become NATO member and closing the negotiations for accession into the European Union;
- The other pillars: Parliament, justice, police have not recorded progresses;
- The civil society was focused on the fight against corruption, adding on the public agenda law drafts, essential for public integrity;
- The public policies designed to ensure the cooperation between pillars were inconsistent, proving a low capacity of implementation and reduced political will.

2005 – 2007

- The third period coincides with signing the Treaty of Romania Accession into the European Union;
- The main political criteria were fulfilled;
- Romania should implement effectively EU standards in the area of justice concerning corruption level, competition and control in customs.

2007 – present

- Getting thorough knowledge about European standards, instruments and practices about strengthening public integrity as indicator of efficient governance.

The stages undergone by Romania in order to develop its own integrity system are present, with certain features in most states analysed in the actual paper.

II.3 Integrity Framework

The concerns of various public bodies, institutions and authorities, universities or outstanding specialists have shaped a model for ethics framework in the public sector[27]. Adapting this framework to the general topic of public integrity, we obtain a logical causal relation between integrity and performance of governance.

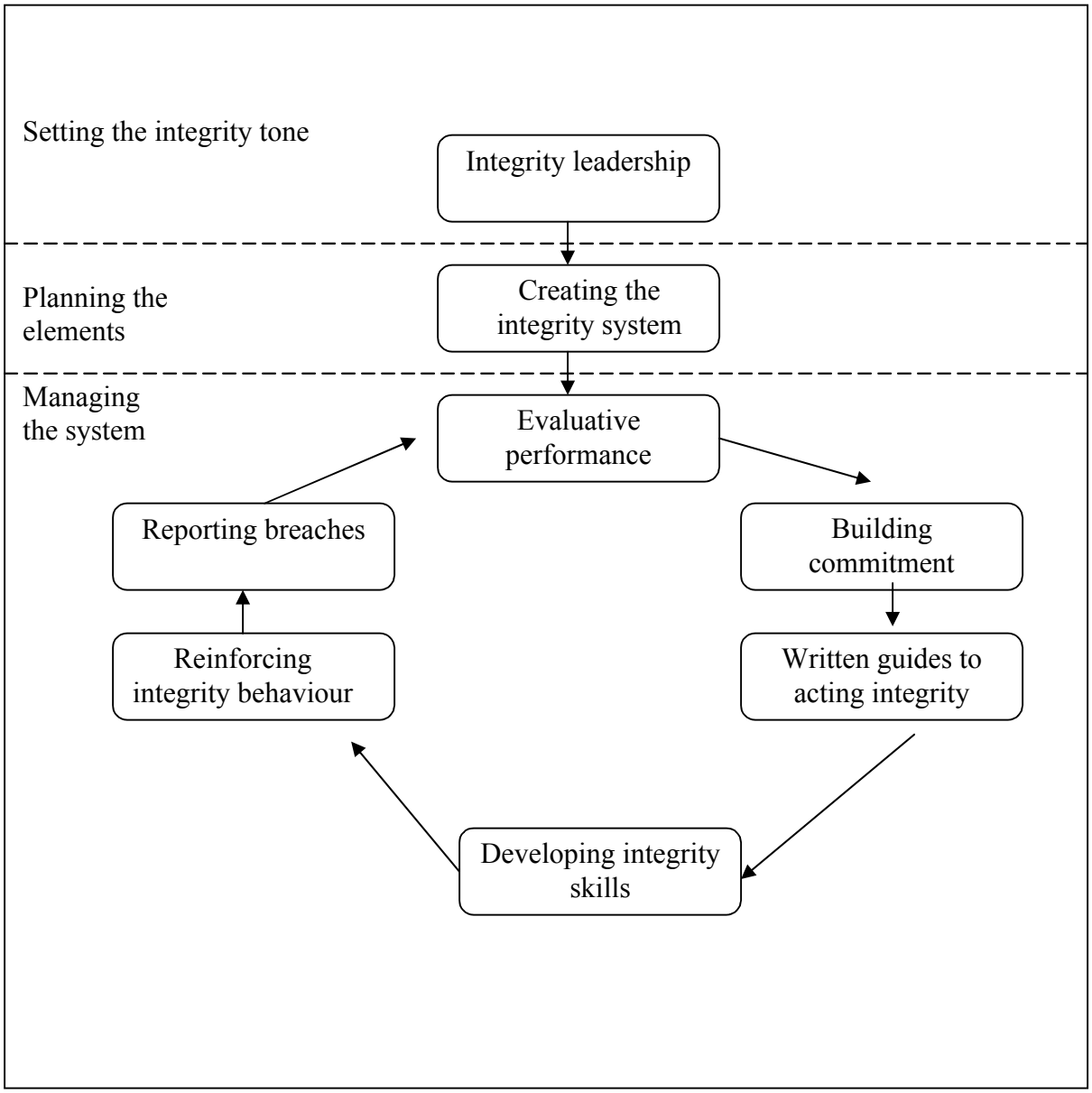

Figure 1 *Integrity Framework*

The Integrity Framework comprises in fact three subsystems concerning: integrity leadership, creating the integrity system and managing the integrity system. We add the integrity resource kit, referring to take the integrity challenge, to develop integrity skills and implement the kit.

[27] See "State Services Authority: Supporting Government Serving Victorians – Ethics Framework", http://www.ssa.vic.gov.au/.../Ethics Framework

II.4 An empirical support concerning the analysis of corruption in the EU

The empirical study uses the coefficient of control of corruption turned into account by the World bank in view of assessing the governance performance (KKM). The analysed time horizon is 1999-2008 and it approaches the EU evolution in its last three stages – EU15, EU25 and EU27 – as well as a virtual one – EU31.

Annex 3 presents the general results for each state and the aggregated results at the EU level. Relevant conclusions derive from the analysis of Table 2.

Table 2. Index of control of corruption – KKM – in different hypostases of the EU evolution

Year	**EU15**	**EU25**	**EU27**	**EU31**
2000	1.62	1.45	1.35	1.14
2002	1.56	1.38	1.28	1.05
2003	1.57	1.40	1.30	1.10
2004	1.50	1.33	1.24	1.06
2005	1.42	1.26	1.18	1.02
2006	1.42	1.25	1.17	1.02
2007	1.40	1.23	1.15	1.00
2008	1.37	1.22	1.14	1.00

As the EU enlarges, the index of corruption is lower, demonstrating a trend of growth for the corruption phenomenon. The influences may be emphasised clearer if we analyse the statistic correlations of the aggregated variables (see Annex 4).

The inverse powerful correlations are due to the group of acceding states (described by the variable EU31_27_KKM), reaching -838 (related to EU15), -810 (related to EU25), -798 (related to EU27) or -565 (related to EU31). At the same time, we also remark inverse correlations related to the evolution of corruption, specific for the states that accessed after 2004 and the acceding states, but the cause seems to be the same group, previously identified.

II.5 Economic freedom

According to the assertions of Heritage Foundation, the economic freedom represents the individual's right to control his/her work and property. In an economically free society, the individuals have the freedom to work, produce, consume and invest in any way, being protected and not constrained by the state. In order to determine the global indicator of economic freedom (IEF), Heritage Foundation uses ten specific indicators, evaluated on fields such as: business, trade, taxation, government size, monetary freedom, investment, finance, right to property, freedom from corruption, labour.

Altman (2007) analyses the impact of economic freedom, including its various components, on the global economic performance of a country. The author states that some specific indicators of IEF are positively correlated to higher levels of GDP per capita, while other indicators are in the opposite situation.
Hall and Lawson (2008) conclude concerning Altman's approaches (2007): ‚Altman's simple correlations add nothing to the on-going and important discussion about the role of economic freedom in contributing to aggregate economic performance"[28].

The specialised literature emphasises connections between the economic freedom and corruption. Graeff and Mehlkop (2003) investigate the impact of various components of the economic freedom on corruption. Also, in this case, the results confirm the fact that certain fields of economic freedom discourage corruption – financial and monetary freedom, freedom of affairs- while others favour corruption – dimension of government.

At the same time, Rose-Ackerman (1997) remarks the possibility to increase corruption when obstacles are imposed in free development of economy. Eiras (2003) carries out a complex analysis, referring to ethics, corruption and economic freedom. The conclusions of the author[29] reveal relations between the economic freedom and corruption on the formal and informal economic activities. Informal economy, direct effect of the corruption phenomena will have a higher weight in GDP as long as the economic freedom disappears. „On average, the size of the informal economy in economically non-free and repressed economies is almost three times the size of the informal economy in free economies and almost double the size of the informal economy in mostly free economies"[30].

The following charts are illustrative in the study mentioned, showing "the relationship between economic freedom and the level of corruption in 95 countries around the world. Chart 1 shows a strong correlation between these two factors. As economic freedom vanishes, corruption flourishes. On average, as shown in Chart 2, the level of perceived morality- as a contrast to corruption- in economically free countries is almost four times the level of perceived morality in the public sector in mostly non-free or repressed economies, and almost 60 percent greater than in mostly free economies"[31].

[28] Hall, J., Lawson, R., (2008), "Theory and evidence on economic freedom and economic growth: A comment", Economics Bulletin, Vol 15, No. 18, p.3
Altman, M., (2007), "How much Economic Freedom is Necessary for Economic Growth? Theory and Evidence", Economics Bulletin, Vol 15, No. 2, pp. 1-20.

[29] Ana Isabel Eiras in Senior Policy Analyst for International Economies in the Center for International Trade and Economies at the Heritage Foundation.
[30] Eiras, A., J., (2003), "Ethics, Corruption and Economic Freedom" Conference "Ethical Foundations of the Economy", Krakow, Poland
[31] Idem 3

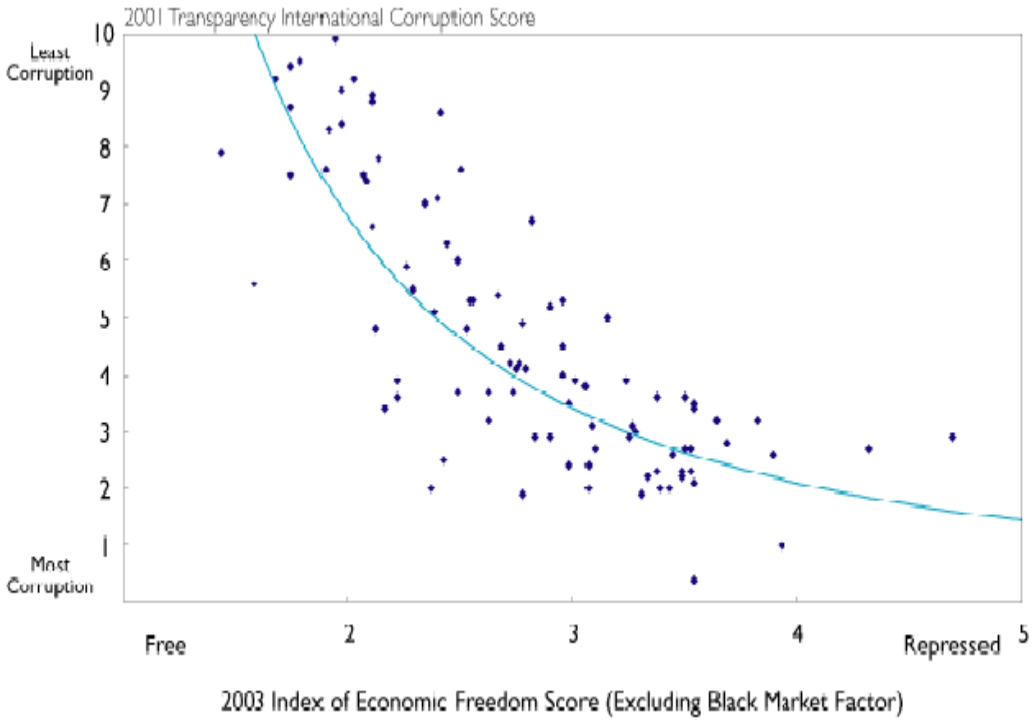

Chart 1. **Economic Freedom and Corruption**

Sources: Gerald P. O'Driscoll, Jr., Edwin J. Feulner, and Mary Anastasia O'Grady, 2003 *Index of Economic Freedom* (Washington, D.C.: The Heritage Foundation and Dow Jones & Company, Inc., 2003); Transparency International, *The Corruption Perception Index 2001 and 2000*, Berlin, Germany, 2001 and 2000, available at http://www.transparency.org/cpi/2001.htm
and http://www.transparency.org/cpi/2000.htm

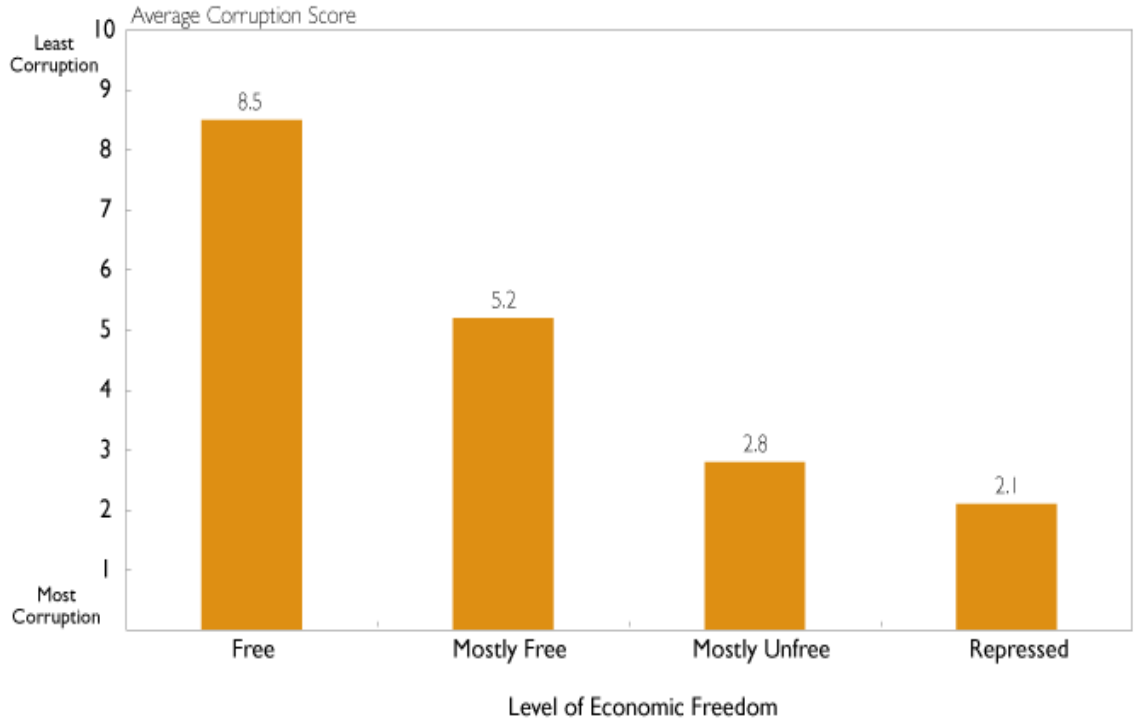

Chart 2. **Economic Freedom and Corruption**

Sources: Gerald P. O'Driscoll, Jr., Edwin J. Feulner, and Mary Anastasia O'Grady, 2003 *Index of Economic Freedom* (Washington, D.C.: The Heritage Foundation and Dow Jones & Company, Inc., 2003); Transparency International, *The Corruption Perception Index 2001 and 2000*, Berlin, Germany, 2001 and 2000, available at http://www.transparency.org/cpi/2001.htm
and http://www.transparency.org/cpi/2000.htm

Mushfiq and Dean (2007) achieve similar studies with the study proposed in the current paper, using an econometric model applied in a panel of 60 countries, including the economic freedom as independent variable.

II.6. An empirical support for the analysis of the economic freedom in the EU

The presented empirical analysis uses the Index of Economic Freedom (IEF), calculated and published by The Heritage Foundation and The Wall Street Journal.
The analysed time horizon is 1999-2008 and, as in the previous empirical analyses, it approaches the evolution of the economic freedom in the EU in the significant stages of enlargement.
Annex 5 presents the general results for each state and the aggregated results at the EU level or groups of states in the EU or acceding countries.

Relevant conclusions concerning the IEF evolution related to the EU enlargement result from Table 3.

Table 3. Index of economic freedom – IEF – for different stages of the EU enlargement

Year	**EU15**	**EU25**	**EU27**	**EU31**
1999	7.46	7.28	7.15	6.96
2000	7.25	7.10	6.98	6.76
2001	7.23	7.10	7.01	6.80
2002	7.41	7.26	7.18	7.01
2003	7.44	7.35	7.26	7.11
2004	7.48	7.40	7.34	7.20
2005	7.43	7.36	7.31	7.18
2006	7.43	7.36	7.33	7.21
2007	7.00	6.91	6.86	6.75
2008	6.94	6.88	6.85	6.79

Also in this case, as the EU enlarges, the index of economic freedom is lower at global level, stabilising the EU global economy in the areas: "moderately free", respectively "mostly free".

Obviously, the presented analysis has a global statistic nature, in the European economy coexisting economies with a high index of economic freedom (UK (7,65-8.25), NL (7.50 – 8.04), IE (7.75 – 8.25)) with the economies with a very low index of economic freedom (RO (4.98 – 6.79), PL (5.95 – 6.78)).

Annex 4 reveals an analysis on groups of states, related to the present and future stages of enlargement.
The correlations in Annex 6 highlight low inverse correlations between the group of states accessed in 2007 (EU27_25_IEF) and EU15, as well as positive correlations, but very low correlations between the acceding states (EU31_27_IEF) and EU15.

III An empirical comparative study

The theoretical framework briefly presented in the first two chapters of the paper again substantiates the idea of some mutual determinations between public integrity, corruption and governance performance.

As revealed by the previous chapters, the empirical study focuses on 27 EU Member States, as well as the four acceding states to the EU (Croatia, Turkey, Macedonia and Iceland).

The analysed period is 1999 – 2008 and the results regarding the used indices belong to the World Bank, Global Integrity or Heritage Foundation.

The analysis targets the three significant stages in the evolution of the EU enlargement – EU15, EU25 and EU27 – as well as a possible future stage where the four acceding states will be involved – EU31.

As stated, from the indices of governmental performance we took into consideration the Gross Domestic Product per capita (GDP) and the Index of Economic Freedom (IEF).
The qualitative data are presented in *Annex 1* for GDP per capita and *Annex 5* for IEF. In statistical processing, we apply log GDP so that the statistic analyses use data of the same order of dimension.

III.1 Linear regressions

The analyses reveal that the single interesting regressions in view of the current study are those using GDP as dependent variables and IEF and KKM as independent variables. In order to emphasise statistically the influence of the European integration process on public integrity, we introduced an independent variable "dummy", called EU, awarding the following values for each state during the analysed period:

$$EU = \begin{cases} 1, & \text{if the respective state is EU Member State} \\ 0, & \text{in the opposite case} \end{cases}$$

EU variable introduced in the above regressions will underline quantitatively the influence of the integration process on the indicator concerning the control of corruption, KKM.

For KKM, we obtain:

$$EU15\_KKM = 9.323 - 1.738 \text{ Log } EU15\_GDP - 0.01\ EU15\_IEF + \varepsilon_1 \qquad \text{(III.1)}$$

$$EU25\_KKM = 8.406 - 1.570 \text{ Log } EU25\_GDP - 0.018\ EU25\_IEF + \varepsilon_2 \qquad \text{(III.2)}$$

$$EU27\_KKM = 7.472 - 1.395 \text{ Log } EU27\_GDP - 0.012\ EU27\_IEF + \varepsilon_3 \qquad \text{(III.3)}$$

$$EU31\_KKM = 4.533 - 0.793 \text{ Log } EU31\_GDP - 0.001\ EU31\_IEF + \varepsilon_4 \qquad \text{(III.4)}$$

The four relations show different dependencies for each stage of enlargement. As it is natural, GDP per capita has the greatest influence, being well known the fact that the level of public integrity depends decisively on the living standard.

At the same time, the relations (III.1) - (III.4) demonstrate IEF low influence on the public integrity as its coefficients in the equations of regression are very small.
Eventual contradictions in the evolutions of some parameters are due to the low level of the series of data, triggering low levels of significance.

The introduction of the EU variable, previously defined, will change significantly the dependencies between the analysed variables and will increase the levels of significance of the coefficients.

Thus, we shall obtain:

$$EU25\_KKM = 6.191 - 1.053 \text{ Log } EU25\_GDP + 0.018\ EU25\_IEF - 0.360\ EU + \varepsilon_5$$
$$(0.004) \quad (0.014) \qquad\qquad (0.705) \qquad (0.103)$$

(III.5)

$$EU27\_KKM = 5.856 - 0.977 \text{ Log } EU27\_GDP - 0.011\ EU27\_IEF - 0.269\ EU + \varepsilon_6$$
$$(0.005) \quad (0.024) \qquad\qquad (0.801) \qquad (0.205)$$

(III.6)

IV. Conclusions

The paper presents a new approach for public integrity in view of the influence of the indices concerning GDP and economic freedom. The further developments might take in consideration both enlargement of the area of analysis, comprising longer periods, and introducing new indices for governmental performance.
At the same time, even in the conditions of the current study, other relevant regressions could be determined.

The modalities for determining the variables EU15, EU25, EU27, respectively EU31 trigger the idea of using other types of regressions in view to better reveal the different variations and influences of enlargement on the European governance performance and public integrity.

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Annex 1. Evolution of GDP per capita for the EU Member States and acceding states

AT_GDP	BE_GDP	BG_GDP	CY_GDP	DK_GDP	EE_GDP	FI_GDP	FR_GDP	DE_GDP	EL_GDP	IE_GDP	IT_GDP	LV_GDP	LT_GDP	LU_GDP
20.011,00	25.299,00	5.865,00	18.938,00	26.926,00	9.205,00	23.686,00	23.628,00	25.142,00	17.032,00	25.909,00	24.196,00	7.807,00	8.598,00	48.857,00
28.736,00	27.540,00	6.082,00	19.374,00	28.789,00	9.863,00	25.638,00	25.243,00	25.919,00	18.389,00	28.643,00	25.565,00	8.024,00	8.598,00	53.315,00
28.806,00	28.435,00	6.731,00	19.809,00	29.445,00	10.082,00	26.637,00	26.651,00	26.862,00	19.934,00	30.518,00	27.134,00	8.457,00	9.039,00	53.921,00
30.231,00	29.946,00	7.195,00	19.374,00	30.756,00	10.958,00	27.560,00	27.777,00	27.587,00	21.598,00	33.047,00	26.804,00	8.891,00	9.700,00	57.546,00
31.094,00	30.146,00	7.427,00	19.374,00	30.441,00	11.836,00	27.676,00	27.412,00	28.579,00	22.712,00	34.531,00	27.149,00	9.325,00	10.802,00	60.737,00
32.610,00	31.035,00	7.891,00	19.592,00	32.314,00	12.493,00	29.867,00	28.284,00	29.912,00	24.168,00	36.538,00	27.426,00	9.975,00	11.023,00	65.004,00
33.409,00	32.063,00	7.891,00	19.809,00	33.196,00	14.246,00	30.644,00	29.692,00	31.366,00	24.641,00	38.675,00	28.144,00	10.626,00	11.684,00	68.313,00
35.163,00	33.608,00	8.123,00	19.809,00	34.871,00	14.935,00	32.580,00	30.946,00	32.886,00	26.356,00	41.678,00	29.463,00	11.276,00	12.125,00	76.266,00
37.176,00	35.382,00	8.574,00	20.245,00	35.961,00	15.855,00	34.700,00	32.633,00	34.466,00	28.206,00	44.826,00	30.538,00	12.144,00	13.007,00	82.407,00
37.867,00	35.222,00	9.521,00	20.899,00	36.362,00	15.375,00	35.337,00	32.985,00	35.652,00	28.829,00	41.933,00	30.873,00	12.361,00	13.668,00	83.353,00
37.256,00	35.528,00	9.521,00	21.334,00	35.453,00	14.246,00	33.525,00	32.680,00	35.652,00	29.136,00	40.690,00	30.873,00	10.626,00	11.684,00	80.635,00

MT_GDP	UK_GDP	NL_GDP	PL_GDP	PT_GDP	CZ_GDP	RO_GDP	SK_GDP	SI_GDP	ES_GDP	SE_GDP	HU_GDP	HR_GDP	TR_GDP	MK_GDP
17.616,00	24.249,00	26.933,00	9.996,00	16.113,00	14.312,00	5.780,00	10.403,00	17.728,00	19.824,00	25.801,00	11.260,00	10.820,00	8.046,00	5.870,00
18.269,00	26.041,00	29.371,00	10.555,00	17.067,00	14.975,00	5.780,00	10.962,00	17.509,00	21.295,00	27.726,00	12.099,00	10.820,00	8.724,00	5.870,00
16.964,00	27.585,00	30.796,00	10.953,00	17.804,00	16.178,00	6.225,00	12.058,00	17.509,00	22.597,00	27.971,00	13.563,00	11.041,00	8.178,00	5.435,00
17.181,00	28.888,00	31.943,00	11.563,00	18.447,00	16.872,00	6.445,00	12.970,00	17.947,00	24.067,00	29.004,00	14.755,00	11.482,00	8.217,00	5.435,00
16.964,00	29.862,00	31.716,00	11.990,00	18.799,00	18.000,00	6.891,00	13.603,00	18.166,00	24.759,00	30.076,00	15.412,00	11.924,00	8.316,00	5.653,00
16.746,00	31.741,00	33.221,00	13.020,00	19.178,00	19.311,00	7.558,00	14.681,00	18.822,00	25.968,00	32.078,00	16.308,00	12.366,00	9.595,00	5.870,00
16.964,00	32.684,00	35.111,00	13.786,00	20.656,00	20.366,00	7.781,00	16.175,00	19.041,00	27.377,00	32.298,00	16.952,00	12.587,00	10.841,00	6.087,00
16.746,00	34.137,00	37.150,00	14.842,00	21.656,00	22.012,00	8.448,00	18.020,00	19.260,00	29.580,00	34.456,00	18.008,00	12.587,00	12.074,00	6.522,00
16.746,00	35.543,00	39.333,00	16.111,00	22.806,00	24.063,00	9.337,00	20.079,00	19.479,00	31.650,00	36.632,00	18.748,00	13.249,00	12.798,00	6.957,00
16.529,00	35.855,00	41.453,00	17.875,00	23.162,00	24.595,00	9.337,00	22.081,00	19.916,00	31.744,00	37.309,00	19.272,00	13.911,00	13.342,00	7.391,00
16.964,00	35.855,00	40.216,00	19.253,00	23.162,00	24.595,00	8.566,00	22.081,00	18.822,00	32.052,00	36.697,00	18.971,00	13.249,00	10.841,00	6.957,00

IS_GDP	EU15_GDP	EU25_GDP	EU27_GDP	EU31_GDP	EU25_15_GDP	EU27_15_GDP	EU31_15_GDP	EU31_25_GDP	EU31_27_GDP
28.632,00	23.561,04	21.573,86	20.651,15	18.980,11	11.002,39	9.536,06	8.975,66	7.564,18	8.227,49
28.807,00	25.182,18	23.026,31	22.021,95	20.249,90	11.557,43	9.950,57	9.478,13	8.030,05	8.847,41
30.451,00	26.432,02	24.186,94	23.143,83	21.154,85	12.243,52	10.583,70	9.629,86	7.809,64	8.356,44
31.084,00	27.357,70	25.077,84	23.999,20	21.903,67	12.949,36	11.170,51	9.992,43	7.933,14	8.419,61
30.781,00	27.886,45	25.617,36	24.529,98	22.379,20	13.546,20	11.709,06	10.351,75	8.127,04	8.539,66
33.710,00	29.078,42	26.774,81	25.655,64	23.516,24	14.519,99	12.581,40	11.368,81	9.174,24	9.749,94
35.027,00	30.258,85	27.899,54	26.724,20	24.597,28	15.348,42	13.222,69	12.232,80	10.062,99	10.911,25
35.113,00	31.839,61	29.405,52	28.174,45	26.005,50	16.456,60	14.174,43	13.264,19	11.040,90	12.048,97
36.311,00	33.463,06	30.975,34	29.697,74	27.420,04	17.741,02	15.315,09	14.222,49	11.772,08	12.763,80
36.498,00	34.001,78	31.625,75	30.324,57	28.036,06	18.985,62	16.278,49	15.007,34	12.236,75	13.310,28
36.196,00	33.871,86	31.592,45	30.259,90	27.666,11	19.466,35	16.463,04	14.113,18	10.385,07	10.975,98

Note: The aggregated variables EU15, EU25, etc.represent weighted means related to the populations of the Member States or candidate states on 1 January 2009

Annex 2. Correlations of the GDP aggregated variables related to the stages of the EU enlargement

		EU15_GDP	EU25_GDP	EU27_GDP	EU31_GDP	EU25_15_GDP	EU27_15_GDP	EU31_15_GDP	EU31_25_GDP	EU31_27_GDP
EU15_GDP	Pearson Correlation	1	1.000(**)	1.000(**)	.999(**)	.987(**)	.990(**)	.983(**)	.932(**)	.905(**)
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000
	N	11	11	11	11	11	11	11	11	11
EU25_GDP	Pearson Correlation	1.000(**)	1	1.000(**)	.999(**)	.990(**)	.993(**)	.984(**)	.931(**)	.904(**)
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000
	N	11	11	11	11	11	11	11	11	11
EU27_GDP	Pearson Correlation	1.000(**)	1.000(**)	1	.999(**)	.990(**)	.993(**)	.985(**)	.932(**)	.905(**)
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000
	N	11	11	11	11	11	11	11	11	11
EU31_GDP	Pearson Correlation	.999(**)	.999(**)	.999(**)	1	.989(**)	.992(**)	.989(**)	.944(**)	.919(**)
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000
	N	11	11	11	11	11	11	11	11	11
EU25_15_GDP	Pearson Correlation	.987(**)	.990(**)	.990(**)	.989(**)	1	.999(**)	.982(**)	.915(**)	.886(**)
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000
	N	11	11	11	11	11	11	11	11	11
EU27_15_GDP	Pearson Correlation	.990(**)	.993(**)	.993(**)	.992(**)	.999(**)	1	.986(**)	.923(**)	.895(**)
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000
	N	11	11	11	11	11	11	11	11	11
EU31_15_GDP	Pearson Correlation	.983(**)	.984(**)	.985(**)	.989(**)	.982(**)	.986(**)	1	.974(**)	.957(**)
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000
	N	11	11	11	11	11	11	11	11	11
EU31_25_GDP	Pearson Correlation	.932(**)	.931(**)	.932(**)	.944(**)	.915(**)	.923(**)	.974(**)	1	.997(**)
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000
	N	11	11	11	11	11	11	11	11	11
EU31_27_GDP	Pearson Correlation	.905(**)	.904(**)	.905(**)	.919(**)	.886(**)	.895(**)	.957(**)	.997(**)	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	
	N	11	11	11	11	11	11	11	11	11

** Correlation is significant at the 0.01 level (2-tailed).

Annex 3. Evolution of the index of control of corruption (KKM) for the EU Member States and acceding states

AT_KKM	BE_KKM	BG_KKM	CY_KKM	DK_KKM	EE_KKM	FI_KKM	FR_KKM	DE_KKM	EL_KKM	IE_KKM	IT_KKM	LV_KKM	LT_KKM	LU_KKM	MT_KKM	UK_KKM
1,850	1,520	-0,140	0,860	2,120	0,660	2,320	1,430	1,970	0,680	1,460	0,890	0,110	0,420	2,040	0,820	2,100
1,850	1,520	-0,140	0,860	2,120	0,660	2,320	1,430	1,970	0,680	1,460	0,890	0,110	0,420	2,040	0,820	2,100
1,960	1,600	-0,030	0,960	2,210	0,730	2,450	1,300	1,960	0,490	1,500	0,670	0,110	0,310	2,210	0,820	2,060
1,960	1,600	-0,030	0,960	2,210	0,730	2,450	1,300	1,960	0,490	1,500	0,670	0,110	0,310	2,210	0,820	2,060
2,030	1,520	0,020	1,030	2,270	0,850	2,410	1,430	1,970	0,510	1,540	0,620	0,300	0,330	1,870	1,220	2,050
2,035	1,470	0,193	0,819	2,322	1,003	2,426	1,417	1,877	0,518	1,402	0,489	0,271	0,388	1,978	1,185	1,946
1,910	1,420	0,080	0,770	2,190	0,980	2,380	1,390	1,850	0,320	1,570	0,250	0,380	0,320	1,820	1,030	1,880
1,930	1,330	-0,040	0,880	2,350	0,950	2,560	1,460	1,790	0,330	1,610	0,330	0,380	0,200	2,000	1,180	1,870
1,973	1,392	-0,190	0,888	2,390	0,979	2,579	1,312	1,782	0,211	1,678	0,320	0,344	0,180	2,235	1,193	1,850
1,822	1,349	-0,170	1,039	2,321	0,938	2,345	1,433	1,773	0,102	1,755	0,129	0,286	0,182	2,024	1,011	1,766

NL_KKM	PL_KKM	PT_KKM	CZ_KKM	RO_KKM	SK_KKM	SI_KKM	ES_KKM	SE_KKM	HU_KKM	HR_KKM	TR_KKM	MK_KKM	IS_KKM	EU15_KKM	EU25_KKM
2,210	0,560	1,190	0,300	-0,290	0,310	0,850	1,400	2,230	0,770	0,070	-0,240	-0,540	2,270	1,619	1,446
2,210	0,560	1,190	0,300	-0,290	0,310	0,850	1,400	2,230	0,770	0,070	-0,240	-0,540	2,270	1,619	1,446
2,170	0,360	1,310	0,360	-0,360	0,130	0,870	1,390	2,240	0,640	0,270	-0,460	-0,730	2,240	1,560	1,376
2,170	0,360	1,310	0,360	-0,360	0,130	0,870	1,390	2,240	0,640	0,270	-0,460	-0,730	2,240	1,560	1,376
2,100	0,410	1,250	0,430	-0,310	0,360	0,910	1,430	2,200	0,680	0,090	-0,210	-0,570	2,440	1,573	1,399
2,017	0,213	1,186	0,401	-0,250	0,487	1,069	1,384	2,140	0,752	0,210	-0,130	-0,440	2,360	1,502	1,326
1,980	0,210	1,120	0,480	-0,210	0,490	0,930	1,310	2,070	0,670	0,210	0,010	-0,380	2,530	1,422	1,258
2,070	0,210	1,060	0,360	-0,140	0,410	1,010	1,140	2,200	0,620	0,090	0,080	-0,320	2,490	1,421	1,252
2,278	0,185	1,096	0,284	-0,170	0,306	0,954	1,129	2,360	0,487	0,059	0,090	-0,280	2,625	1,403	1,229
2,193	0,376	1,080	0,365	-0,060	0,431	0,952	1,182	2,235	0,549	0,121	0,095	-0,110	2,319	1,368	1,219

EU27_KKM	EU31_KKM	EU31_15_KKM	EU27_15_KKM	EU25_15_KKM	EU31_27_KKM
1,347	1,136	0,082	0,308	0,527	-0,220
1,347	1,136	0,082	0,308	0,527	-0,220
1,280	1,052	-0,058	0,210	0,400	-0,415
1,280	1,052	-0,058	0,210	0,400	-0,415
1,304	1,103	0,075	0,275	0,471	-0,192
1,241	1,059	0,092	0,243	0,391	-0,109
1,176	1,021	0,145	0,238	0,384	0,021
1,172	1,025	0,161	0,221	0,353	0,080
1,147	1,005	0,133	0,167	0,301	0,089
1,142	1,002	0,203	0,281	0,426	0,100

Note: The aggregated variables EU15, EU25, etc.represent weighted means related to the populations of the Member States or candidate states on 1 January 2009

Annex 4. Correlations of the aggregated variables KKM related to the stages of the EU enlargement

		EU15_KKM	EU25_KKM	EU27_KKM	EU31_KKM	EU31_15_KKM	EU27_15_KKM	EU25_15_KKM	EU31_27_KKM
EU15_KKM	Pearson Correlation	1	.996(**)	.994(**)	.919(**)	-.681(*)	.464	.745(*)	-.838(**)
	Sig. (2-tailed)		.000	.000	.000	.030	.177	.014	.002
	N	10	10	10	10	10	10	10	10
EU25_KKM	Pearson Correlation	.996(**)	1	1.000(**)	.941(**)	-.631	.537	.800(**)	-.810(**)
	Sig. (2-tailed)	.000		.000	.000	.051	.109	.005	.005
	N	10	10	10	10	10	10	10	10
EU27_KKM	Pearson Correlation	.994(**)	1.000(**)	1	.948(**)	-.613	.556	.810(**)	-.798(**)
	Sig. (2-tailed)	.000	.000		.000	.059	.095	.004	.006
	N	10	10	10	10	10	10	10	10
EU31_KKM	Pearson Correlation	.919(**)	.941(**)	.948(**)	1	-.338	.707(*)	.880(**)	-.565
	Sig. (2-tailed)	.000	.000	.000		.340	.022	.001	.089
	N	10	10	10	10	10	10	10	10
EU31_15_KKM	Pearson Correlation	-.681(*)	-.631	-.613	-.338	1	.208	-.143	.952(**)
	Sig. (2-tailed)	.030	.051	.059	.340		.564	.694	.000
	N	10	10	10	10	10	10	10	10
EU27_15_KKM	Pearson Correlation	.464	.537	.556	.707(*)	.208	1	.924(**)	-.102
	Sig. (2-tailed)	.177	.109	.095	.022	.564		.000	.780
	N	10	10	10	10	10	10	10	10
EU25_15_KKM	Pearson Correlation	.745(*)	.800(**)	.810(**)	.880(**)	-.143	.924(**)	1	-.435
	Sig. (2-tailed)	.014	.005	.004	.001	.694	.000		.209
	N	10	10	10	10	10	10	10	10
EU31_27_KKM	Pearson Correlation	-.838(**)	-.810(**)	-.798(**)	-.565	.952(**)	-.102	-.435	1
	Sig. (2-tailed)	.002	.005	.006	.089	.000	.780	.209	
	N	10	10	10	10	10	10	10	10

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Annex 5. Evolution of the index of economic freedom (IEF) for the EU Member States and acceding states

AT_IEF	BE_IEF	BG_IEF	CY_IEF	DK_IEF	EE_IEF	FI_IEF	FR_IEF	DE_IEF	EL_IEF	IE_IEF	IT_IEF	LV_IEF	LT_IEF	LU_IEF	MT_IEF	UK_IEF
7,360	7,680	5,030	6,220	7,630	7,350	7,500	7,040	7,500	6,640	8,130	7,090	6,690	6,260	7,810	6,450	8,250
7,190	7,360	5,560	6,310	7,430	7,570	7,370	6,720	7,290	6,570	7,930	6,950	6,810	6,370	7,780	6,420	8,110
7,080	7,150	5,870	6,720	7,390	7,620	7,360	6,810	7,290	6,240	7,820	6,940	7,020	6,720	7,760	6,720	8,010
7,630	7,320	6,140	6,850	7,610	7,710	7,610	7,040	7,610	6,980	7,740	6,710	6,870	6,690	7,740	6,480	8,130
7,670	7,260	6,150	6,450	7,630	7,700	7,580	7,180	7,580	6,930	7,860	6,840	6,990	6,950	7,760	7,170	8,080
7,560	7,260	6,500	7,390	7,730	7,920	7,750	7,100	7,650	6,990	8,090	7,030	7,350	7,430	7,640	7,380	8,100
7,590	7,140	6,670	7,320	7,720	7,850	7,630	7,130	7,570	7,030	7,950	7,080	7,440	7,370	7,620	7,390	8,020
7,670	7,180	6,740	7,360	7,740	7,810	7,620	7,430	7,500	7,110	7,980	6,950	7,220	7,380	7,650	7,540	7,890
7,000	7,150	6,290	7,130	7,920	7,780	7,480	6,540	7,120	6,010	8,240	6,250	6,830	7,080	7,520	6,600	7,950
7,160	7,010	6,230	7,090	7,790	7,470	7,380	6,420	7,110	6,270	8,130	6,270	6,620	7,030	7,540	6,720	7,650

NL_IEF	PL_IEF	PT_IEF	CZ_IEF	RO_IEF	SK_IEF	SI_IEF	ES_IEF	SE_IEF	HU_IEF	HR_IEF	TR_IEF	MK_IEF	IS_IEF	EU15_IEF	EU25_IEF	EU27_IEF
8,040	6,190	7,380	6,470	4,990	6,160	6,340	7,290	7,430	6,540	6,260	5,750	5,120	7,760	7,460	7,280	7,146
7,750	5,960	7,270	6,550	4,980	6,490	6,650	7,030	7,150	6,820	6,120	5,280	5,010	7,670	7,249	7,098	6,983
7,670	6,140	7,340	6,450	5,420	6,360	6,600	7,050	7,260	6,810	5,960	5,470	5,460	7,610	7,231	7,098	7,007
7,600	6,090	7,320	6,830	5,720	6,700	5,900	7,440	7,410	7,380	5,990	5,940	5,770	7,730	7,406	7,262	7,179
7,600	6,610	7,470	6,920	5,740	7,300	6,730	7,490	7,190	7,520	6,160	6,120	5,650	7,800	7,438	7,350	7,262
7,680	6,720	7,190	6,990	6,410	7,420	6,740	7,490	7,380	7,410	6,260	6,250	6,080	7,860	7,477	7,400	7,343
7,540	6,750	7,200	6,910	6,460	7,480	6,840	7,320	7,280	7,420	6,350	6,340	6,320	7,730	7,428	7,360	7,311
7,560	6,780	7,190	7,090	6,790	7,520	6,900	7,320	7,280	7,330	6,330	6,420	6,400	7,530	7,429	7,365	7,330
7,680	5,950	6,430	6,850	6,150	6,870	6,060	6,970	7,040	6,720	5,460	6,080	6,110	7,650	7,005	6,906	6,864
7,500	6,320	6,440	6,980	6,420	6,970	6,470	6,960	7,240	6,610	5,920	6,380	6,570	7,370	6,939	6,881	6,851

EU31_IEF	EU31_15_IEF	EU27_15_IEF	EU31_27_IEF	EU27_25_IEF	EU25_15_IEF
6,961	5,872	5,947	5,771	5,000	6,319
6,761	5,695	5,968	5,330	5,131	6,296
6,805	5,875	6,151	5,506	5,538	6,392
7,013	6,153	6,309	5,945	5,830	6,498
7,108	6,386	6,587	6,117	5,847	6,878
7,197	6,583	6,831	6,252	6,434	6,987
7,181	6,640	6,861	6,345	6,515	6,997
7,208	6,725	6,955	6,419	6,777	7,025
6,754	6,207	6,324	6,052	6,187	6,378
6,786	6,451	6,518	6,363	6,370	6,576

Note: The aggregated variables EU15, EU25, etc.represent weighted means related to the populations of the Member States or candidate states on 1 January 2009

Annex 6. Correlations of IEF for different stages of the EU enlargement

		EU15_IEF	EU25_IEF	EU27_IEF	EU31_IEF	EU31_15_IEF	EU27_15_IEF	EU31_27_IEF	EU27_25_IEF	EU25_15_IEF
EU15_IEF	Pearson Correlation	1	.976(**)	.922(**)	.813(**)	.177	.259	.058	-.063	.484
	Sig. (2-tailed)		.000	.000	.004	.624	.470	.874	.862	.156
	N	10	10	10	10	10	10	10	10	10
EU25_IEF	Pearson Correlation	.976(**)	1	.983(**)	.915(**)	.378	.460	.244	.141	.663(*)
	Sig. (2-tailed)	.000		.000	.000	.281	.181	.496	.698	.037
	N	10	10	10	10	10	10	10	10	10
EU27_IEF	Pearson Correlation	.922(**)	.983(**)	1	.970(**)	.536	.612	.398	.320	.779(**)
	Sig. (2-tailed)	.000	.000		.000	.110	.060	.254	.368	.008
	N	10	10	10	10	10	10	10	10	10
EU31_IEF	Pearson Correlation	.813(**)	.915(**)	.970(**)	1	.717(*)	.762(*)	.609	.512	.881(**)
	Sig. (2-tailed)	.004	.000	.000		.020	.010	.062	.130	.001
	N	10	10	10	10	10	10	10	10	10
EU31_15_IEF	Pearson Correlation	.177	.378	.536	.717(*)	1	.977(**)	.960(**)	.940(**)	.910(**)
	Sig. (2-tailed)	.624	.281	.110	.020		.000	.000	.000	.000
	N	10	10	10	10	10	10	10	10	10
EU27_15_IEF	Pearson Correlation	.259	.460	.612	.762(*)	.977(**)	1	.878(**)	.929(**)	.958(**)
	Sig. (2-tailed)	.470	.181	.060	.010	.000		.001	.000	.000
	N	10	10	10	10	10	10	10	10	10
EU31_27_IEF	Pearson Correlation	.058	.244	.398	.609	.960(**)	.878(**)	1	.890(**)	.783(**)
	Sig. (2-tailed)	.874	.496	.254	.062	.000	.001		.001	.007
	N	10	10	10	10	10	10	10	10	10
EU27_25_IEF	Pearson Correlation	-.063	.141	.320	.512	.940(**)	.929(**)	.890(**)	1	.782(**)
	Sig. (2-tailed)	.862	.698	.368	.130	.000	.000	.001		.007
	N	10	10	10	10	10	10	10	10	10
EU25_15_IEF	Pearson Correlation	.484	.663(*)	.779(**)	.881(**)	.910(**)	.958(**)	.783(**)	.782(**)	1
	Sig. (2-tailed)	.156	.037	.008	.001	.000	.000	.007	.007	
	N	10	10	10	10	10	10	10	10	10

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).