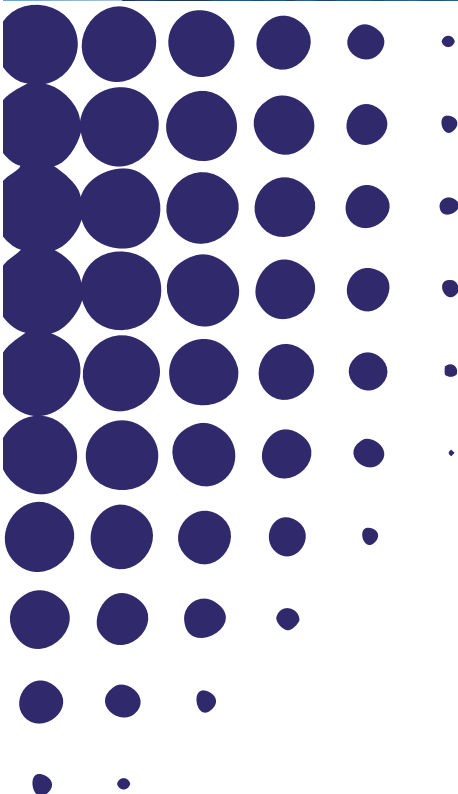


# D5.1 SEARCH DELIVERABLE

Interim Working Paper on the Current Status of Social, Cultural and Institutional Environment in Neighbouring Countries.

January 2013



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## **Deliverable 5.1 : Interim Working Paper on the Current Status of Social, Cultural and Institutional Environment in Neighbouring Countries.**

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### **Preface**

Work Package (WP) 5, “Social, Cultural and Institutional Environment”, represents a large research effort which crosscuts other WPs. In fact, the core topics of WP5 are contextual to the other topics studied in the rest of the SEARCH project: institutions, social factors and culture shape the setting where economic actors take decisions and operate. In this respect, WP5 is designed to explore the current status of the social, cultural and institutional environment in the European Neighbouring Policy (ENP) area, and to identify the impact of current changes and transformations on the prospects for improved economic development, social cohesion, and stronger integration with the European Union (EU) and, in particular, with European New Member States (NMS). In WP5 researchers suggest that in order to achieve cohesion among cores and peripheries, good-quality institutional arrangements are required. These should ensure an efficient long-term upgrading of capabilities, functions, and networks at various levels.

This interim report, which forms Deliverable 5.1, includes three specific Tasks of WP5, namely Task 5.1 on Social Capital in ENP Countries and Regions, 5.2 on The Role of Cultural Diversity on Innovation and Task 5.3 on the Comparative View of the Quality of National Institutional Environments. Research has been conducted within each Task investigating various aspects of the topics at stake, with specific reference to the issues faced by ENP countries. This interim report is constituted by three sub reports at the Task level. Each one of these includes all the working papers that have been generated within a specific Task. General introductions and conclusions are presented for each sub report. For the sake of clarity and given the wide variety of topics explored in WP5 it is preferable to introduce and summarize each Task separately.



## Report on Task 5.1 (UTARTU)

### The current status of social capital in EU and neighbouring countries.

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#### **1. Introduction**

Work package 5 in general is designed to investigate the current status of the social, cultural and institutional environment in the ENP countries and regions, and to identify the impact of current changes and transformations on the prospects for improved economic development, social cohesion, and stronger integration with the EU area and with the neighbour members among the new member states (NMS). Current report covers task 1 of WP5, focusing on the specificities of social capital in Central and Eastern European countries, both those already members of EU (NMS) and those who are included in the ENP framework (including the countries who might apply for membership in possible future enlargement rounds).

This report consists of four working papers. The first working paper, WP5.1.1 by UTARTU investigates the levels, dynamics and determinants of social capital in Europe; the second WP5.1.2 by ICBSS focuses on a comparative analysis of social capital in combination with institutional factors and competitiveness of different European countries; the third WP5.1.3 by HSE assess the effect of social capital on an individual's economic behaviour in Russia; and the fourth WP5.1.4 by HSE analyses the phenomenology of socio-psychological capital viewed as certain basis for the formation of social capital.

Working paper 5.1.1 first composes four measures of social capital – general trust, institutional trust, formal networks and social norms – on the basis of European Values Study data. Secondly, the changes in the levels of social capital components are observed over the period 1990-2008. Thirdly, the determinants of social capital are studied separately in three country groups: old European countries, new member states with communist background and neighbouring countries. Finally, possible reasons for the lower level of social capital in Central and Eastern European countries are discussed on the basis of theoretical literature.

Working paper 5.1.2 aims to test empirically the hypothesis that there is a two-ways dynamic relation between social capital and democratic and institutional performance which mutually strengthen each other, and also economic performance and human development. Methodological framework is elaborated on the basis of reliable data from the World Economic Forum, the World Bank, the UNDP and Economist Intelligence Unit. Altogether three main components of social capital are distinguished: generalized trust, public trust to politicians and elite compliance to legal and social norms, which are compared to each other as well as to the levels of democratization, institutional quality and global competitiveness in each group of countries (i.e. old EU-15, 12 new member states and Eastern European Neighbouring countries) and single countries.

Working paper 5.1.3 aims to assess the effect of social capital on an individual's economic behavior. A structural equation model relating trust, tolerance, and civic identity as components of social capital with economic attitudes was specified and tested while controlling for age, gender, and education. More specifically, it was shown how attitudes towards money as a means of influence and of protection and the desire to accumulate it reflect a personal sense of dependency on money and can lead to constant concern about money – the tendency which could be possibly reduced by greater social capital, the latter providing social support that serves as an alternative source of security, influence, and protection.

Working paper 5.1.4 goes into more detail, while analysing the phenomenology of socio-psychological capital viewed as a resource for psychological relations which constitutes the

basis for the formation of social capital. A cross-cultural analysis of the impact of value orientations on socio-psychological capital has been performed. Methodologically, Structural Equation Modelling was implemented in order to assess the influence of value orientations in three ethnic groups (Russian, Chechens, Ingush) on their social and psychological capital (relationships that are the basis for the formation of social capital).

As a sum, these four working papers together give an empirical overview of the composition, levels, changes, determinants and outcomes of social capital comparatively in old EU members, new member states and neighbouring countries.

## **2. General conclusions**

This report consists of four working papers, which subsequently offer an empirical overview of the past and present state of social capital in Europe, distinguishing between old EU-members, new member states, and neighbouring countries. Additionally, these papers explore alternative determinants of social capital, such as socio-demographic factors, political and institutional factors, and ethnic value orientations. Also, the effect of social capital on individuals' monetary attitudes and nations' economic performance and competitiveness are analysed. Together these working papers draw a broad picture about the specific features of social capital in different country groups. In following, the most important conclusions of the working papers are summarised.

Working paper 5.1.1 investigates the dynamics and the determinants of social capital in different country groups in Europe. The measures of social capital were composed on the basis of the EVS data with the help of confirmatory factor analysis. Altogether, four factors of social capital were extracted: general trust, institutional trust, formal networks and social norms. Comparison of the levels of social capital showed that in case of all social capital components, the levels were lower in NMS as compared to western Europe (WE). In less developed NC-s institutional trust and social norms appeared to be stronger than in NMS, but lower than in WE. During 1990-2008, the average level of social capital has decreased in NMS and increased in WE. However, the experiences of individual countries were rather diverse concerning the changes in different components of social capital, so no strong generalisations can be made on the basis of country groups. Results of the regression analysis

showed that most influential determinants of social capital are education and satisfaction with democracy. Therefore, the main policy implication would be the need to support investments in educational system and improving democratisation processes in order to increase the level of social capital.

Working paper 5.1.2 gives a throughout comparative overview of the current state of social capital in different country groups, and draws lessons about institutions and policies that encourage cooperative values and attitudes and will promote formation of social capital. Empirical findings show that there are important differences in social capital also among the “old” EU-15 members, but, even more, among candidate countries and Eastern neighbouring countries. When analysing relations of different components of social capital to each other, it appeared that level of generalized trust in most cases does not correspond to levels of elite compliance to norms and public trust to politicians. Instead, it seems that generalized trust reflects level of cooperative predisposition in everyday life and towards anyone, while it is mostly culturally embedded. On the other hand, level of elite compliance to norms and public trust to politicians seem to rather reflect historically embedded authority and acceptance of the state, of public institutions and of political power. Satisfaction with institutional performance could also enhance public trust to politicians. After all, evaluation of data has shown that there is obviously a positive relation in nearly all countries between public trust to politicians, on the one side, institutional quality and elite compliance to norms on the other.

Working paper 5.1.3 aims to assess the effect of social capital on an individual’s economic behaviour among Russian adults. The results of Structural Equation Modelling show that higher levels of trust, tolerance, and civic identity are associated with adverse monetary attitudes. This can be interpreted as when social capital decreases, people try to compensate by accumulating financial capital. Greater social capital, on the other hand, by providing social support that serves as an alternative source of security, influence, and protection, may reduce this dependence on money. An important finding of this research is that the component of social capital that is associated most frequently and strongly with monetary attitudes is civic identity.

Working paper 5.1.4 constitutes a cross-cultural analysis of the impact of value orientations on socio-psychological capital, which in turn could lead to higher social capital. Based on a sample of 3 ethnic groups from Russia (Russians, Chechens and Ingush) it has been demonstrated that although the impact of individual values on socio-psychological capital obey logic, it may be culture-specific. Values of “Self-Transcendence” have a positive impact on the socio-psychological capital of a multicultural society, whereas values of “Self-Enhancement” influence it negatively. “Openness to Change” values positively influence civic identity but have a negative effect on perceived social capital. Finally, “Conservation” values positively affect the civic (Russian) identity of the representatives of the Ingush ethnic group.

In following, final versions of the introduced working paper are presented.

**Working paper 5.1.1 (pp. 6-27)**

„THE DYNAMICS AND DETERMINANTS OF SOCIAL CAPITAL IN THE EUROPEAN UNION AND NEIGHBOURING COUNTRIES”

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**Working paper 5.1.2 (pp. 28-65)**

“SOCIAL CAPITAL, DEMOCRATIZATION AND ECONOMIC PERFORMANCE: EU, CANDIDATE AND NEIGHBORING COUNTRIES IN COMPARATIVE PERSPECTIVE”

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**Working paper 5.1.3 (pp. 66-87)**

“SOCIAL CAPITAL AND ATTITUDES TOWARDS MONEY”

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**Working paper 5.1.4 (pp. 88-103)**

“ARE INDIVIDUAL VALUE ORIENTATIONS RELATED TO SOCIOPSYCHOLOGICAL CAPITAL? A COMPARATIVE ANALYSIS DATA FROM THREE ETHNIC GROUPS IN RUSSIA”

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# The dynamics and determinants of social capital in the European Union and Neighbouring Countries

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## **Abstract**

This study investigates the dynamics and the determinants of social capital in Europe. The measures of social capital were composed on the basis of the EVS data with the help of confirmatory factor analysis. Altogether, four factors of social capital were extracted: general trust, institutional trust, formal networks and social norms. Changes in the levels of social capital components over the period 1990-2008 were calculated for 14 Western-European (WE) countries and for 10 new member states (NMS) from Central and Eastern Europe. The analysis of the determinants of social capital in year 2008 covered 20 Western-European countries, 10 new member states and additionally 15 neighbouring countries (NC). Comparison of the levels of social capital showed that in case of all social capital components, the levels were lower in NMS as compared to WE. In less developed NC-s institutional trust and social norms appeared to be stronger than in NMS, but lower than in WE. During 1990-2008, the average level of social capital decreased in NMS and increased in WE. However, the experiences of individual countries were rather diverse concerning the changes in different components of social capital, so no strong generalisations can be made on the basis of country groups. Among the determinants of individual-level social capital, socio-demographic and cultural-psychological factors were distinguished. Results of the regression analysis showed that most influential factors of social capital appeared to be education and satisfaction with democracy. Social capital also associates positively with age, income, and children, while there was negative relationship between social capital, town size and individualism. Finally, dummies for NMS and WE were significant predictors of lower levels of norms and networks, confirming that there are differences between country groups.

## **Keywords**

Social capital, Europe, transitional economies

**JEL Classification**

A13, O52, P20, Z13

## **1. INTRODUCTION**

Social capital is considered as one of the factors of economic development, which increases economic efficiency through supporting cooperation and lowering transaction costs. Empirically, it has been shown that regions and countries with relatively high stocks of social capital seem to achieve higher levels of innovation and growth, as compared to societies of low trust and civiness (e.g. Knack and Keefer 1997, Ostrom 1999, Rose 1999, Kaasa 2009). More generally, social capital is expected to constitute one fundamental determinant of the formation of communities and networks of people and firms, offering broad variety of benefits at the level of individuals, organisations and the society as a whole.

However, there is evidence that the levels of social capital are lower in new member states and neighbouring countries as compared to old EU members. As such, the lack of social capital may be an important development obstacle in less-developed regions of Europe. Current study aims to compare the levels and dynamics of social capital in EU member state, and to examine the determinants of social capital comparatively in three country groups – old and new member states, and neighbouring countries – in order to find out whether there are differences between country groups regarding social capital formation. Additionally, specific reasons for lower level of social capital in Eastern European countries with communist background would be explored. Information obtained from this study could help to understand future developments regarding the possible changes in the levels of social capital in NC-s, and to formulate activities and policies which may lead to higher prosperity in NCs.

## **2. THEORETICAL BACKGROUND**

### **2.1. About the concept of social capital**

Social capital, in its broadest sense, refers to the internal social and cultural coherence of society, the trust, norms and values that govern interactions among people and the networks and institutions in which they are embedded (Parts 2009). As an attribute of a society, social capital can be understood as a specific characteristic of social environment that facilitates people's cooperation. The key idea of this argument is that communities can provide more effective and less costly solutions to various principal-agent and collective goods problems than can markets or government interventions (Durlauf 2004). Also, social capital helps to reduce transaction costs related to uncertainty and lack of

information. As such, it can be said that social capital gives “soft”, non-economic solutions to economic problems.

Theoretical literature mostly agrees that social capital consists of different components, which are more or less interrelated. The elements of social interaction can be divided into two parts: structural aspect, which facilitates social interaction, and cognitive aspect, which predisposes people to act in a socially beneficial way. The structural aspect includes civic and social participation, while the cognitive aspect contains different types of trust and civic norms, also referred to as trustworthiness. Although there has been some inconsistency concerning the relative importance of the cognitive and structural aspects of social capital, it could be assumed that these two sides of the concept work interactively and are mutually reinforcing. For example, informal communication teaches cooperative behavior with strangers in order to achieve shared objectives, and the importance of common norms and related sanctions necessary to prevent opportunistic behavior. Another important outcome of being involved in different types of networks is that personal interaction generates relatively inexpensive and reliable information about trustworthiness of other actors, making thus trusting behavior less risky. On the other hand, pre-existing generalized, diffused interpersonal trust indicates the readiness of an actor to enter into communication and cooperation with unknown people. Based on these relationships, it could be shortly summarized that social interaction requires communication skills and trust, which, in turn, tend to increase through interpersonal collaboration. Therefore, various dimensions of social capital should be taken as complements, which all are related to the same overall concept of social capital. (Parts 2009)

One of the most important and widely discussed components of social capital is trust. In general terms, trust is based on underlying values that people share and its development depends heavily on parental upbringing. As such, trust is a stable trait which exists generally regardless of the context, of the other person, and even regardless of prior experiences (Uslaner 2002). This type of trust is also referred as *moral trust*. Similar with moral trust is *generalized trust* (shortly *general trust*, referred also as *social trust*) which also assumes abstract trust to unknown members of society. It is all-inclusive like moral trust, but contrasts the former in two aspects: it is context dependent and influenced by personal and collective experiences (Levi 1996). Generalized trust indicates the potential readiness of citizens to cooperate with each other and the abstract preparedness to engage in civic endeavors with each other (Rothstein and Stolle 2002). At the society level, generalized trust is based on society’s ethical habits and moral norm of reciprocity (Fukuyama 2001).

Generalized trust is often opposed to *special trust* or *institutional trust*. These types of trust are also called *horizontal* and *vertical* trust, respectively. Institutional trust includes trust in social system (Luhmann 1988, Hayoz and Sergejev 2003) and towards public institutions, positions and officers (Hardin 1998). Rothstein and Stolle (2003) have developed an institutional theory of generalized trust, which states that citizens draw distinctions between various institutions along at least two dimensions: they expect representatives of political, legal, and social institutions to function as their agents, and they expect impartiality and an unbiased approach from order institutions. Taken together, trust in institutions determines how citizens experience feelings of safety and protection, how citizens make inferences from the system and public officials to other citizens, how citizens observe the behavior of fellow-citizens, and how they experience discrimination against themselves or close others (Rothstein and Stolle 2002: 27).

## **2.2. The determinants of social capital**

The determinants of social capital can be divided into two groups:

- The psychological and socio-economic characteristics of individuals such as personal income and education, family and social status, values and personal experiences, which determine the incentive of individuals to invest in social capital.
- Contextual or systemic factors at the level of community/nation, such as overall level of development, quality and fairness of formal institutions, distribution of resources and society's polarization, and prior patterns of cooperation and trust.

Current study focuses on the individual-level determinants of social capital<sup>1</sup>, which are empirically studied, for example, by Alesina and Ferrara (2000), Van Oorschot and Arts (2005), Christoforou (2005), Halman and Luijkx (2006), Kaasa and Parts (2008), and others. Although the results of these empirical studies are not always uniform, some generalizations can be made concerning the determinants of different types of social capital.

Firstly, income and education seem to be most influential socio-economic factors of social capital. Empirical evidence shows that higher levels of income and education coincide with a strong probability for group membership and interpersonal trust from the part of individual (Knack and

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<sup>1</sup> These national-level determinants of social capital remain outside the scope of the current study, but they constitute likely part of the future research on this topic.

Keefer 1997, Denny 2003, Helliwell and Putnam 1999, Paldam 2000, and others). However, the exact causal mechanism behind this relationship is not clearly explained in the literature. For example, trust could be a product of optimism (Uslaner 1995, 2003) generated by high or growing incomes. Similarly, education may strengthen trust and civic norms, if learning reduces uncertainty about the behaviour of others, or if students are taught to behave cooperatively (Offe and Fuchs 2002, Soroka *et al.* 2003). These processes can be self-reinforcing: if individuals know that higher education levels make others more likely to be trusting (and perhaps also more trustworthy), then they are in turn more likely to trust others (Helliwell and Putnam 1999). This implies that the returns to trusting behaviour are higher when the average levels of education increase. At the more general level, it has been suggested that both formal and informal education act as mediators of social values and norms between human generations (Montgomery 2000). It appears that such value transmission should not always be supportive to social capital generation – education may foster individualistic and competitive attitudes and hence reduce the motivation for cooperation.

As regards to a positive relationship between education, income and participation in community and voluntary activities, there is no simple answer to the question what makes more educated individuals to participate and volunteer more often. One possibility is to consider volunteering as a consumption good, which increases one's non-material well-being and is influenced by the opportunity cost of consumption of this good (Brown and Lankford 1992). Since higher education is associated with a higher opportunity cost of time (equal to foregone earnings), negative effect of education on volunteering could be expected. However, volunteering usually takes place out of work time, so there may be little or no trade-off. Among other explanations, there is a possibility that participation activity, education and wages may be determined by common omitted factors. For example, some personal traits, such as openness, activity, curiosity and responsibility, ensure higher education and wage, and are prerequisites for active participation in community life at the same time.

Education and income are also often related to person's employment status. Oorschot *et al.* (2006) have shown that the negative effect of unemployment holds for a wide range of social capital components, whereas the effect is stronger in case of indicators of formal participation and weaker on general trust.

Besides income and education, several other social and demographic determinants like age, gender, marital status, number of children, and others seem to be important in determining social capital. However, these factors are less studied than aforementioned and also the empirical results and their

explanations are varying (see, for example, Christoforou 2005, Fidrmuc and Gèrxhani 2005, Halman and Luijkx 2006). Shortly summarizing, most models show positive impact of age on trust and formal networks, although there is also great support for non-linear relationship. Concerning gender, men tend to have significantly higher participation levels in formal networks. Women, instead, have more family-based social capital, they are more trustworthy and accept more likely social norms. At the same time, trust – especially institutional trust – has not been found to be much influenced by gender. Further, usually it is expected that married couples have less social capital than on average, as family life takes time and decreases the need for outside social relations (Bolin *et al.* 2003). Theoretically, having children could be expected to have a similar effect as marriage, but empirical evidence is not so clear.

Some studies have also tested the impact of town size on the components of social capital. The results illustrate the effect of physical distance and possible anonymity on the pattern of socializing: on the one hand, living in a small or medium-sized town tend to decrease both formal and informal participation (Fidrmuc and Gèrxhani 2005), while Alesina and Ferrara (2000) show to the contrary that people have less informal social contacts in larger settlements.

Finally, religiosity might influence social capital, mostly increasing informal networks, social norms and institutional trust but lowering general trust (which is replaced with trust in god). However, belonging into different religious denominations could give different results – it is believed that trust is lower in countries with dominant hierarchical religions like Catholic, Orthodox Christian or Muslim (Putnam *et al.* 1993, La Porta *et al.* 1997), while Protestantism associates with higher trust (Inglehart 1990, Fukuyama 1995) and norms (van Oorschot *et al.* 2006). Similarly to religious doctrines, communist rule can be considered as an example of the effect of ideology. In general, an ideology can create social capital by forcing its followers to act in the interests of something or someone other than himself (Knack and Keefer 1997, Whiteley 1999).

Summing up, empirical analysis in the second part of the paper would be rather explorative, as there is not much uniform evidence concerning the effect of several social capital determinants, especially when distinguishing between country groups with different economic and historical backgrounds.<sup>2</sup>

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<sup>2</sup> It should be noted that most previous analyses have paid no attention to the possible differences in social capital determinants in different countries. There are only few exceptions (i.e. Fidrmuc and Gèrxhani 2005, Kaasa and Parts 2008, Parts 2009), but no solid conclusions can be drawn on the basis of so few studies.

### 2.3. The specific features of social capital in post-communist countries

This subchapter gives a literature overview<sup>3</sup> about the possible reasons why the levels, sources and also outcomes of social capital might be different in Central and Eastern European (CEE) post-communist countries, as compared to other European societies with longer tradition of market economy and democracy. Generally, it has been suggested that the main reason of the low levels of social capital in CEE countries is related to the legacy of communist past, post-communist transformation processes and backwardness in social development. More specifically, following aspects could be highlighted:

- Firstly, transition produces uncertainty which tends to decrease a sense of optimism about the future, as people do not feel that they have control over their own destinies – this, in turn, leads to lower generalized trust (Uslaner 2003).
- Secondly, post-communist transition resulted in a rapid destruction of dominant values (like ideological monism, egalitarianism, and collective property) and habits, the process which stimulates development of cynicism and opportunism and thus creates negative social capital. (Štulhofer 2000) Another result of the value changes is that transformation societies are becoming more individualized: traditional family life is breaking down and individuals become more isolated in society.
- Thirdly, transition economies are usually characterized by high levels of poverty and unemployment, competition at the workplace, and strong primary concern for the family, which do not create a good environment for mutual trust among people, for rebuilding social ties and networks of cooperation (Bartkowski 2003).
- Fourth, social capital and cohesion are negatively affected by unequal income distribution, which resulted from destruction of the old state-sector middle class, before a new middle class could be established. Uslaner (2003: 86) suggests that links between the increase of economic inequality and the low levels of generalized trust may be different in the transitional countries compared to the West, because in former the past equality was not the result of normal social interactions and market forces, but rather enforced by the state.

Another set of explanations of the low trust and participation levels is directly related to the communist past of these countries. Perhaps most fundamental is that communism taught people not to

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<sup>3</sup> More detailed insight into studies about social capital in CEE countries can be found in Badescu and Uslaner (2003).



trust strangers – the encompassing political control over daily life presented people with the acute problem of whom to trust and how to decide whether intentions of others were honest. Flap and Völker (2003) explain how people created niches in their personal networks consisting of strong ties to trustworthy others, which allowed an uncensored exchange of political opinions and which provided social approval. At the same time, weak provision networks existed, but these were based solely on economic shortage in command economy and did not evolve a basis for mutual trust. (Ibid) Rose et al (1997) explain the low trust levels as a result of an “hour-glass society” in which the population was divided into two groups – ordinary people and privileged “nomenclature” – both having strong internal ties at the level of family and close friends within the group but little interaction with other group. Therefore the social circles in transition economies would seem to be smaller and more closed than in market economies, where the positive association between social networks and generalised trust is higher (Raiser *et al* 2001). Similar explanations hold for low levels of organisational membership (see Howard 2003, Gibson 2003).

Explanations of the low level of institutional trust are also complicated. In transition economies, where institutional and political frameworks are only being constructed and changes in the political situation affects quite strongly the trust in institutions, the trust may vary significantly without showing a clear patterns of relationships to the quality of institutional settings and economic performance (Mateju 2002). Although most of the European post-communist states have democratic constitutions and institutions, the Western model of democracy which posits a trusting and active citizenry is not well established in these countries (Badescu and Uslaner 2003). As an example, although a high percentage of people vote in national elections in the transition countries, most voters distrust the politicians and parties for whom they have voted. This suggests that the culture of the new political elite is often not supportive of building bridges between society and its political institutions.

Interestingly, Uslaner (2003) points out that what separate transition and non-transition societies is largely the people’s interpretations of their prior experiences under communism, not psychology. The regimes are very different and this clearly affects both trust and civic engagement, but the differences in regimes work through the same underlying motivations for trusting others and taking part in civic groups. As such, although the trend of low trust and nonparticipation throughout post-communist Europe is unlikely to change rapidly, three are still possible mechanisms for improvement (Howard (2002, pp. 166-167):

- 1) Generational change – young post-communist citizens are less influenced by the experience of life in a communist system. However, this result is not certain, as socialization comes not only from

the current institutional setting, but also from one's parents, teachers, and peers who still have strong personal experience of the communist past.

- 2) More active and supportive role on the part of the state, with notion that this support should be selective, as not all kind of organizations are beneficial for democracy and overall wellbeing.
- 3) Improving economic conditions – raising the actual standards of living of most ordinary people, so that they might have the economic means to be able to devote some time and energy to voluntary organizations, and possibly to contribute a donation or membership fee.

Based on the above, it can be suggested that policies aiming to shape individual experiences so as to increase trust and civic engagement are possible in post-communist societies. Even if the preciousness of social capital in respect of achieving alternative development objectives is the subject of further investigation, completion of transformation processes and improvements in social development are expected to favour also increase in the levels of social capital in NMS and several less developed neighbouring countries.

### **3. DATA AND MEASUREMENT**

Empirical part of the current study covers both European Union member states and as many neighbouring countries as possible. As one of the aims of this study was to highlight the particular features of social capital in post-communist countries, total sample was divided into three groups of countries: (i) Western European countries (WE)<sup>4</sup> including 15 “old” EU members plus 5 other countries from the region, (ii) new member states (NMS)<sup>5</sup> including 10 post-communist countries from Central and Eastern Europe (CEE) plus Cyprus and Malta, and (iii) 15 neighbouring countries (NC)<sup>6</sup>, mostly from CIS and Balkan.

The data about social capital were drawn from the European Values Study (EVS, 2010). For the analysis of the determinants of social capital, the data from the latest wave were used: for most countries the indicators pertain to the year 2008, except for Belgium, Finland, the United Kingdom, Iceland, Italy, Sweden, and Turkey (2009). In order to analyse the dynamics of social capital over

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<sup>4</sup> Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Great Britain

<sup>5</sup> Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, Slovenia

<sup>6</sup> Albania, Azerbaijan, Armenia, Bosnia-Herzegovina, Belarus, Croatia, Georgia, Moldova, Montenegro, Russian Federation, Serbia, Turkey, Ukraine, Macedonia, Kosovo

time, the latest data were compared to those of year 1990. As many European countries outside EU were not included in the earlier rounds of EVS survey, the analysis of the changes in social capital levels covers less countries – 14 from WE and 10 NMS.

As social capital is a multifaceted concept, it can be best described by different dimensions instead of one overall index. Based on the theoretical considerations and also the availability of certain social capital data for as many European countries as possible, it was reasonable to distinguish between four components of social capital – general trust, institutional trust, social norms and formal networks. Altogether, 12 initial indicators were extracted from EVS survey. In order to ensure the correct interpretation of the results, the scales were chosen so that larger values reflect a larger stock of social capital. Then, latent variables of social capital were constructed using confirmatory factor analysis. The results of the factor analysis are presented in Appendix Table A1. The percentages of total variance explained by the factors range from 52.76% to 81.43% and Kaiser-Meyer-Olkin (KMO) measures indicate the appropriateness of the factor models (values of the KMO measure larger than 0.5 are usually considered as acceptable). The country mean factor scores of social capital can be found in Appendix Table A2.

Concerning the determinants of social capital, this study covers only individual-level determinants of social capital, which are divided into two broader categories: 1) socio-demographic factors like gender, age, income, education, employment and marital status, number of children and town size; and 2) cultural and psychological factors including individualism, satisfaction with democracy and religiosity. All these indicators are also taken from the latest wave of EVS. Exact descriptions of these indicators together with measurement details can be found in Appendix Table A3.

#### **4. RESULTS AND DISCUSSION**

Based on the individual-level factors of social capital components, country mean factor scores were calculated and saved as variables for further analysis (see Appendix A2). Comparison of the levels of social capital showed that in case of all social capital components, the levels were lower in NMS as compared to WE. However, in less developed NC-s institutional trust and social norms appeared to be stronger than in NMS, but lower than in WE (see Table 1). These results support previous findings that in post-communist countries institutional trust may not be related to the institutional quality which is expectedly higher in NMS than in NC. It can be suggested that in NMS-s citizens are

more demanding for institutions and democratization because of more explicit comparisons with WE countries, and thus stand more critically to the decisions of institutions.

**Table 1.** Mean factor scores by country groups

Country group	Year	General trust	Institutional trust	Formal networks	Social norms
WE	1990	0.247	0.068	0.094	0.016
	2008	0.261	0.157	0.199	0.098
NMS	1990	-0.178	-0.090	-0.066	-0.003
	2008	-0.244	-0.252	-0.194	-0.130
NC	2008	-0.212*	0.055	-0.209	0.036

Source: author's calculations. \* Without Belarus and Azerbaijan which have exceptionally high levels of general trust, the average of NC-s is -0.285.

Next, the levels of social capital in 1990 and 2008 were compared. Based on the availability of the data, this analysis covered 14 Western-European countries and 10 new member states. In general, the average level of social capital has creased in NMS and increased in WE during the period 1990-2008. However, the experiences of individual countries were rather diverse concerning the changes in different components of social capital, so no strong generalisations can be made on the basis of country groups. Unfortunately there were no data of social capital changes for NC-s, but based on recent historical experience of NMS-s, there is a possibility that institutional trust and acceptance of social norms would decrease in neighbouring countries when overall economic situation improves, as it has happened in new member states. In this situation, it is highly important to ensure the effectiveness and fairness of formal institutions when implementing economic and political reforms, in order to withstand possible decrease in institutional trust.

At the final stage of empirical analysis, regression analysis was conducted in order to investigate the determinants of social capital. The results from pooled sample are presented in Table 2. It appeared that most influential factors of social capital are education and satisfaction with democracy. Therefore, investments in educational system and improving democratisation processes could increase the level of social capital. Social capital also associates positively with age, income, and having children, while there was negative relationship between social capital, town size and individualism. As can be seen, some of the factors analysed could not be easily affected by policies, while encouraging overall economic and social development

would give contrary results: growing incomes and population ageing tend to increase social capital, while spreading individualism might decrease social capital.

**Table 2.** The results of the regression analysis (standardized regression coefficients, pooled sample)

Independent variables	Dependent variable			
	General trust	Institutional trust	Formal networks	Social norms
gender	0.04***	0.01	-0.02**	0.05***
age	0.08***	0.02***	0.00	<b>0.16***</b>
income	0.08***	0.04***	0.08***	0.01
education	<b>0.12***</b>	0.02**	<b>0.11***</b>	-0.01
unemployed	-0.03***	-0.01	-0.01	0.01**
relationship children	0.00	-0.01**	0.02***	-0.05***
size of town	0.00	0.03***	0.03***	0.04***
individualism	0.00	-0.03***	-0.06***	-0.03***
democracy	-0.08***	-0.01*	-0.07***	0.01
religiosity	<b>0.12***</b>	<b>0.49***</b>	0.04***	0.04***
CEE	-0.03***	0.03***	0.03***	0.09***
NC	-0.02	-0.08***	-0.06***	-0.20***
WE	-0.05*	0.06**	-0.07**	-0.14***
	0.13***	0.00	0.04	-0.14***
F-Statistic	171.59***	481.63***	84.49***	99.64***
Durbin-Watson	1.53	1.56	1.35	1.39
Adjusted R-square	0.11	0.26	0.06	0.07

Notes: N=18829; regression coefficients higher than 0.1 are marked bold. \*\*\* significant at the 0.01 level, \*\* significant at the 0.05 level, \* significant at the 0.10 level (two-tailed).

As the statistical significance of country group dummies (see Table 2) revealed that there are probably some differences between country groups, next the regressions were run separately for all three country groups. The results of this analysis can be found in Appendix Table A4. Following Table 3 highlights the relationships which had different signs of regression coefficients in different country groups.

**Table 3.** Differences between country groups in regression results

	Institutional trust	Formal networks	Social norms
Age	WE + NMS + NC – (ns)	WE + NMS – (ns) NC -	
Income	WE + NMS + NC -		WE + NMS - NC -
Education	WE + NMS - NC (ns)		WE + NMS + NC -
Individualism	WE - NMS – (ns) NC +		WE - NMS + (ns) NC +

“+” denotes positive regression coefficient, “-“ denotes negative regression coefficient and “ns” refers to insignificant relationship.

Source: author’s generalisations on the basis of regression results presented in Appendix A4.

The only component of social capital which was influenced mostly similarly by supposed determinants in different country groups was general trust (as a small exception, having children had positive effect in WE but weak negative effect in NC and NMS). As can be seen from Table 3, most diverse results appeared when analysing the determinants of institutional trust and social norms. Both income and age associate with higher institutional trust in WE and NMS, while in NC-s the opposite holds. In case of individualism, just an opposite pattern can be observed. Education has also diverse effect on institutional trust: in WE those with higher education have more institutional trust, but in NMS they have less institutional trust (in NC-s this relationship was insignificant). These mixed results could be related to the differences in actual quality of institutions in different country groups, although theory suggested that in post-communist countries the relationship between institutional quality and institutional trust is not quite clear.

As regards social norms, both income and education have positive effect in WE and negative effect in NC, while the effect of individualism is just opposite in these country groups. In new member states, the effects of the same determinants are mixed: education has positive effect on social norms similarly to western European countries, while regarding the effect of income and individualism NMS-s are

more similar to neighbouring countries where higher income decreases the acceptance of norms (in case of individualism the regression coefficient is positive like in NC-s but insignificant).

Finally, age has different effect on participation in formal networks: in WE the number of connections increases with age while in NC older people participate less in formal networks. The latter could be explained by different past experiences – under communist rule formal participation was mostly “forced” not voluntary and this could have generated unwillingness to join different organisations even after the collapse of old social order.

Summing up, it seems that the determinants of social capital are in accordance with theory only in WE countries and tend to be opposite in NC-s, while new member states with communist background are somewhere in between – in some aspects they are already more similar to more developed western European societies, while in others they still suffer from past communist rule.

## **5. CONCLUSIONS**

Current study aimed to compare the levels and dynamics of social capital in EU member state, and to examine the determinants of social capital comparatively in different country groups. As one of the tasks of this study was to highlight the particular features of social capital in post-communist countries, total sample was divided into three groups of countries: Western European countries including 15 “old” EU members plus 5 other countries from the region, new member states including 10 post-communist countries from Central and Eastern Europe plus Cyprus and Malta, and 15 neighbouring countries mostly from CIS and Balkan.

As social capital is a multifaceted concept, it can be best described by different dimensions instead of one overall index. Based on the theoretical considerations and also the availability of certain social capital data for as many European countries as possible, it was reasonable to distinguish between four components of social capital – general trust, institutional trust, social norms and formal networks. These components were derived on the basis of 12 initial indicators from European Values Study dataset using confirmatory factor analysis.

Firstly, country mean factor scores were calculated and the levels of social capital in 1990 and 2008 were compared. Comparison of the levels of social capital showed that in case of all social capital

components, the levels were lower in NMS as compared to WE. During 1990-2008, the average level of social capital decreased in NMS and increased in WE. In less developed NC-s institutional trust and social norms appeared to be stronger than in NMS, but lower than in WE. Based on historical experience it could be suggested that, unfortunately, there is a possibility that institutional trust and acceptance of social norms would decrease in neighbouring countries when overall economic situation improves, as it has happened earlier in new member states. In this situation, it is highly important to ensure the effectiveness and fairness of formal institutions when implementing economic and political reforms, in order to withstand possible decrease in institutional trust.

Secondly, regression analysis was conducted in order to investigate the determinants of social capital, which were divided into two broader categories: 1) socio-demographic factors like gender, age, income, education, employment and marital status, number of children and town size; and 2) cultural and psychological factors including individualism, satisfaction with democracy and religiosity. Most recent data from EVS round 4 were used, referring mostly to year 2008. Results of the regression analysis showed that most influential factors of social capital are education and satisfaction with democracy. Therefore, investments in educational system and improving democratisation processes could increase the level of social capital. Social capital also associates positively with age, income, and having children, while there was negative relationship between social capital, town size and individualism. As can be seen, some of the factors analysed could not be easily affected by policies, while encouraging overall economic and social development would give contrary results: growing incomes and population ageing tend to increase social capital, while spreading individualism might decrease social capital.

Regarding the limitations of this study, only individual-level determinants of social capital were explored, which did not explain all differences between country groups. Regarding the further research, it would be reasonable to supplement the analysis with additional national-level determinants of social capital, such as overall level of development, quality and fairness of formal institutions, distribution of resources and society's polarization, and prior patterns of cooperation and trust. Also, clustering countries instead of analysing pre-defined country groups could give some additional insight into the state of social capital in Europe.



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## Appendix

**Table A1. Indicators of social capital**

Latent factor of social capital	Initial indicators	Factor loadings	Variance explained	KMO
General trust	People can be trusted/cant be too careful	-0.702	60.76%	0.635
	Most of the time people try to be helpful or mostly looking out for themselves	0.799		
	Most people try to take advantage of you or try to be fair	0.831		
Institutional trust	Confidence in government	0.875	73.30%	0.714
	Confidence in parliament	0.848		
	Confidence in political parties	0.845		
Formal networks	Unpaid work for different voluntary organizations	0.902	81.43%	0.500
	Belonging into different voluntary organizations	0.902		
Social norms	Not justified: cheating on taxes	0.764	52.76%	0.747
	Not justified: avoiding fare in public transport	0.734		
	Not justified: claiming state benefits	0.710		
	Not justified: accepting a bribe	0.696		

Source: author's calculations on the basis of EVS.

**Table A2. Country mean factor scores of social capital, 2008**

Country	General trust	Institutional trust	Formal networks	Social norms
Albania	-0.53	-0.21	0.36	-0.27
Armenia	-0.33	0.09	-0.40	0.06
Azerbaijan	-0.41	0.89	-0.15	-0.16
Austria	0.24	-0.21	0.03	-0.15
Belarus	0.07	0.44	-0.19	-0.90
Belgium	0.21	-0.01	0.20	-0.14
Bosnia Herzegovina	-0.24	-0.31	-0.39	0.12
Bulgaria	-0.45	-0.74	-0.30	0.33
Croatia	-0.24	-0.57	-0.18	-0.13
Czech Republic	-0.06	-0.40	0.01	-0.30
Cyprus	-0.60	0.46	-0.23	-0.23
Denmark	1.13	0.62	0.91	0.45
Estonia	0.20	-0.18	-0.05	0.03
Finland	0.60	0.02	0.32	0.21
France	0.16	-0.01	-0.12	-0.27
Georgia	-0.07	0.12	-0.46	0.22
Germany	0.25	-0.17	-0.14	0.11
Great Britain	0.46	-0.32	-0.05	0.30
Greece	-0.54	-0.27	-0.29	-0.32
Hungary	-0.16	-0.47	-0.37	0.16
Iceland	0.83	0.04	0.73	0.26
Ireland	0.50	0.19	0.42	-0.06
Italy	-0.07	-0.22	0.75	0.16
Kosovo	-0.33	0.86	0.28	0.53
Latvia	0.09	-0.43	-0.17	-0.34
Lithuania	-0.23	-0.28	-0.27	-0.46
Luxembourg	0.19	0.60	0.47	-0.22
Macedonia	-0.36	0.21	-0.08	0.28
Malta	-0.03	0.47	-0.33	0.56
Moldova, Rep. of	-0.44	-0.04	-0.23	-0.11
Montenegro, Rep. of	-0.21	-0.08	-0.29	0.20
Netherlands	0.71	0.29	1.14	0.23
Norway	0.97	0.45	0.31	0.17
Poland	-0.04	-0.43	-0.42	-0.25
Portugal	-0.33	-0.15	-0.19	0.16
Romania	-0.40	-0.31	-0.24	-0.17
Russian Federation	0.30	0.22	-0.42	-0.56
Serbia	-0.35	-0.61	-0.25	0.25
Slovak Republic	-0.31	0.25	-0.28	-0.37
Slovenia	-0.01	0.18	0.14	0.07
Spain	0.13	0.04	-0.34	-0.07
Sweden	0.80	0.38	0.19	-0.09
Switzerland	0.64	0.46	0.24	0.22
Turkey	-0.53	0.29	-0.41	0.60
Ukraine	0.10	-0.57	-0.38	-0.04

Source: author's calculations

**Table A3. Indicators of the determinants of social capital**

Indicator	Exact description and measurement
Gender	1=male, 2=female
Age	continous scale (year of birth was asked in the survey)
Income	monthly household income (x1000), corrected for ppp in euros
Education	highest educational level attained respondent (8 categories)
Unemployment	1=yes, 0=no
Married	having steady relationship (1=yes, 0=no)
Children	how many children do you have
Town size	size of town where interview was conducted (8 categories)
Individualism	people should stick to own affairs (1=disagree strongly ... 5=agree strongly)
Democracy	are you satisfied with democracy (1=not at all ... 4=very satisfied)
Religiosity	are you a religious person (1=convinced atheist, 2=not religious person, 3=religious person)

**Table A4. Determinants of social capital: Regression results by country groups** (standardized regression coefficients)

Independent variables	General trust			Institutional trust			Formal networks			Social norms		
	WE	NMS	NC	WE	NMS	NC	WE	NMS	NC	WE	NMS	NC
gender	0.05***	0.05***	0.02	0.00	0.01	0.00	-0.03**	0.02	-0.04***	0.06***	0.06***	0.02
age	<b>0.10***</b>	0.00	0.09***	0.04***	0.07***	-0.01	0.04***	-0.01	-0.05***	<b>0.22***</b>	<b>0.19***</b>	0.09***
income	0.08***	0.06***	0.02	0.07***	0.06***	-0.05***	0.08***	0.06***	0.04***	0.05***	-0.05***	-0.02**
education	<b>0.18***</b>	0.05***	<b>0.11***</b>	0.04***	-0.03*	0.00	<b>0.19***</b>	<b>0.12***</b>	0.04***	0.02	0.04**	-0.07***
unemployed	-0.03***	-0.03*	-0.05***	-0.02**	-0.02	-0.01	-0.02**	-0.03	-0.01	-0.02	-0.01	0.03**
relationship	0.01	-0.01	0.00	0.01	-0.02	-0.03***	0.05***	0.03**	-0.01	-0.03***	-0.04***	-0.07***
children	0.03***	-0.01	-0.03**	0.01	0.01	0.05***	0.04***	0.01	0.02	0.04***	0.03	0.04***
size of town	-0.01	0.00	0.02	-0.01	-0.07***	-0.01	-0.06***	-0.07***	-0.04***	-0.04***	-0.01	-0.04***
individualism	<b>-0.13***</b>	-0.03**	-0.04***	-0.05***	-0.01	0.03***	<b>-0.13***</b>	-0.01	-0.02*	-0.05***	0.02	0.08***
democracy	<b>0.15***</b>	<b>0.18***</b>	0.06***	<b>0.47***</b>	<b>0.38***</b>	<b>0.54***</b>	0.03**	0.06***	0.04***	0.03***	0.00	0.05***
religiosity	-0.05***	0.00	-0.02*	0.04***	0.03**	0.00	0.08***	-0.03*	0.00	0.07***	0.04**	<b>0.11***</b>

Notes: regression coefficients higher than 0.1 are marked bold.

\*\*\* significant at the 0.01 level, \*\* significant at the 0.05 level, \* significant at the 0.10 level (two-tailed).

# Social Capital, Democratization and economic performance: EU, Candidate and Neighboring Countries in Comparative perspective

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## **Abstract**

The paper focuses on a comparative analysis of the social capital in combination with the level of democracy, institutional quality and global competitiveness of the European Union countries and its neighbors: According to position and experience in the Europeanization path, “Old” EU-15 countries, the 12 ‘new EU members, candidate countries and Eastern European Neighboring countries are compared both across and within these four groups. Three main components of social capital, that means generalized trust, public trust to politicians and elite compliance to legal and social norms are highlighted and compared to each other as well as to the levels of democratization, institutional quality and global competitiveness in each group of countries and single countries. Based on reliable data from the World Economic Forum (WEF), the World Bank, the UNDP and Economist Intelligence Unit, a methodological framework is elaborated, in order to test empirically, our main hypothesis: Social capital favors democratic and institutional performance, while it is, vice versa, also favored by democratic and institutional quality. In other words, there is a two-ways dynamic relation between social capital and democracy who mutually strengthen each other. Furthermore, that social capital and democratization strengthen economic performance and human development.

## **Keywords**

Social Capital, Generalized Trust, Public Trust in Politicians, Democratization, Human Development, Global Competitiveness, Compliance with Norms, Institutional Quality, Europeanization, Transition

## **JEL Classification**

J240, O180, O470, R110



## 1. INTRODUCTORY REMARKS

Prosperity was traditionally considered to be associated to physical capital and also to human capital, which means tools and training that enhance human productivity. By analogy to these notions, the concept of social capital emerged and is considered to be particularly important for social and economic performance. The notion of social capital appears to be quite broad, it was originally declared (Bourdieu, 1986) to depend on “cultural capital” (skills and knowledge) that is often combined to “symbolic capital” (status, prestige), while it was later on identified with social networks and forms of reciprocity and trustworthiness that arise from them (Putnam 2000). It has been found out that local governments reach higher objective measures of performance in places where the public actively participates in civic activities (Putnam 1993). On the other hand, conceptualization of social capital as “network and form of reciprocity” has been criticized, since social networks could prove to have significant negative impacts, especially if they are exclusive (e.g. a “Mafia”, a familist, a “rent-seeking”, a paternalistic network)(La Porta 1997; Mitsopoulos M. and Pelagidis Th. 2009; Acemoglu D. & Robinson J. 2012 ). Furthermore, social networks are often reflecting or even structuring social differentiations (Bourdieu 1992), cleavages and inequalities, sometimes offering powerful elites and pressure groups a kind of informal but powerful social infrastructure that by-passes formal institutions, rules and procedures.

A more positive conceptualization of social capital is to define it as a prevailing tendency of people to adopt a basic attitude of openness and trust, in other words a propensity of people in a society to cooperate in order to produce socially efficient outcomes and to avoid inefficient non cooperative traps such as that in the prisoner's dilemma (La Porta et al. 1997). This kind of cooperative pre-disposition is, of course, easier when people interact with other people which are similar to themselves. This is the main reason that a distinction exists between “bonding” and “bridging” social capital. Bonding social capital is created by social networks between homogeneous groups of people. However, negative consequences often refer to this “bonding” social capital that is often accumulated in rather “closed”, discriminating and “vertical” networks, in hierarchical patronage systems, in self-serving and exclusive, “rent seeking” groups (La Porta 1997; Mitsopoulos M. and Pelagidis Th. 2009), sometimes producing “cartelization” through organization (M.Olson, 1982). On the other hand, bridging social capital is created through social networks between socially heterogeneous groups and individuals. These are open and “horizontal” networks which can drastically reduce negative externalities of social differentiations while they facilitate social interactions and bridge cleavages. Bridging social capital seems to be particularly important in times of extreme social differentiation and increasing cultural diversity, paving the way for smoother and faster change or even for reform and transition procedures.

Social networks and connections constitute one part of social capital, while the basic predisposition of individuals and groups to cooperate and trust each other constitutes another part of social capital. Trust is both a prerequisite and a result of social networks and connections, but it can also influence the attitude and

choices of individuals and groups in given situations regardless -or in addition to- existing social networks and connections. Trust has many different meanings: It can be *strategic trust* that we gain from daily experience, *particularistic trust* in people like ourselves (stemming from direct experience or stereotypes), or *generalized trust* in strangers, especially people who are different from ourselves (Uslaner, 2002). Trust is a key component of social capital, creating openness and making cooperation faster and easier. While attitudes of *selective trust* (such as of strategic and especially of particularistic trust) are rather static, *generalized trust* has a dynamic character. Generalized trust means openness and seeing strangers as offering opportunities rather than risks (Uslaner, 2010) . This kind of generalized openness and trust marks a cooperative pre-disposition that is smoothening social interaction and especially promoting mutual learning. Therefore, generalized trust seems to be the core essence and the keystone of social capital.

Trust and social networks, however, are not the only components of social capital. *Social norms* (not justifying tax cheating, accepting bribe etc.) and *institutional trust* (often defined as confidence in parliament, government, and political parties) are important parameters of social capital (Parks, 2009). Obviously the latter (institutional trust) and finally all parameters of social capital interact with political contexts: “Political systems are important determinants of both the character of civil society and of the uses to which whatever social capital exists might be put” (Edwards and Foley 1998). Dictatorships, authoritarian regimes and “closed” societies obviously undermine formation and use of social capital. For this reason, lower levels of social capital in some central and eastern European states have been connected to the communist past, just as low levels of social capital in some Latin-American countries had been connected to the legacy of military regimes (Klesner 2007, Booth and Bayer 2009). On the other hand, it is obvious that levels of social capital are not equal or analogous in many countries with similar authoritarian backgrounds. For this reason, additional explanatory factors, such as the level of human development, the level of inequality and other aspects, e.g. the religious background and the negative effects of hierarchical religions (Putnam 1993; La Porta 1997), have been employed.

In this paper we will compare different components of social capital across different countries and groups of countries. In this way it will also be shown whether and how levels of these different components of social capital correspond to each other. Furthermore, some hypotheses will be tested:

H1: Among the different components of social capital, generalized trust is the most important in many aspects

H2: Higher levels of generalized trust correspond to higher scores in institutional quality, democracy and global competitiveness and vice versa

H3: Higher levels of institutional quality result into higher levels of public trust to politicians and stronger elite compliance to legal and social norms

This paper is structured as follows: The next section presents the theoretical background, focusing on the relation between democratization and the formation of social capital. Then, methodological framework is

being explained and data selection presents. In the fourth part, empirical findings are being presented and evaluated before, in the last section, conclusions are drawn.

## **2. DEMOCRATIZATION AND SOCIAL CAPITAL**

Low levels of social capital lead to excessively rigid and unresponsive political system with high levels of corruption. Formal public institutions require social capital in order to function properly (Dowley and Silver 2002). Also private corporations are large organizations that can benefit from trust among their employees and –of course- from trusting relations to clients and suppliers, to creditors and shareholders. Fukuyama (1995) has underlined the need for cooperation between strangers for the success of large firms, and showed how dependent such cooperation on trust is. He contrasted large successful firms in high-trust countries to smaller family firms characterizing low-trust societies. Low levels of social capital and especially of generalized trust seem, therefore, to create a vicious circle of unresponsive political systems and non-competitive business structures on the one hand, mistrusting citizens and clients on the other.

There is no doubt that dictatorships and authoritarian regimes have negative impacts on social capital. Especially generalized trust must suffer from the fact that individuals and groups are deprived from fundamental freedoms, while exercise of power is not accountable to the citizens and decision-making is extremely exclusive and non-transparent. In fact, authoritarian regimes deliberately destroy social capital, through surveillance, secret denunciation and spying techniques, creating an atmosphere of fear and mistrust, while they outlaw most associations. Authoritarian regimes prefer vertical, centrally controlled social networks, while they resent horizontal networking. Communist regimes denied, moreover, property rights, thus increasing uncertainty and impeding individual self-expression in their societies. Therefore it is obvious that social capital faced particularly unfavorable conditions under the Communist regimes of Central and Eastern Europe.

On the other hand, the question that arises is whether it can be said that a democratic system enhances the formation of social capital. In other words, especially concerning Central and Eastern Europe, the question is whether democratization is a process that can gradually restore social capital and further on enhance formation of it. If this is true, it should be moreover investigated, whether countries that had undergone “liberalization” phases (Czech Republic, Hungary etc.) or/and had developed strong associations and mass movements (e.g. Poland) during the communist period, had a better “starting point” for the processes of democratization and restoration of social capital. In theory, “political healing” has been claimed to be a phase that nations are going through, after a long period of dictatorship and/or authoritarian state practices (Rigos, P. 1997). Some other scholars, following human development theory (Welzel, C., Inglehart R. and Klingemann H.-D. 2003) regard democratization as an “emancipative process”, while they highlight preferences of individuals and underline the role of social movements for democratization (Welzel, C. 2006), in contrast to structural theories. These theories, regard the materialization of democracy as a dependent

variable of a society's prevailing structural features such as its stage of economic development, its internal social or ethnic divisions or its position in the global economy. More specifically, *world system theory*, focuses on an advantageous position in the world economic system as preposition for a significant factor favoring democracy (Bollen & Jackman 1985). *Modernization theories* claim that economic wealth is the most conducive factor to democratization (Boix & Stokes 2003). *Spatial diffusion theories*, consider a society's exposure to democratic neighbors as the major factor of democratization (Linz & Stepan 1996). *Conflict theories* highlight little internal divisions within societies as indicated by a low degree of income inequality and little ethno-linguistic fractionalization (Muller 1997). Finally, for *class-power theory*, the most important factor is the size of the working class (Rueschemeyer et al. 1992). Furthermore, according to the *elite-choice* approach, that was particularly influential in transition research, democratization processes are managed by elites; they are not driven by attitudinal tendencies of the masses nor determined by the structural features in each country (Karl, T.L. & Schmitter, P.C. 1991). In fact, even if democratization was initiated through social movements and mobilization of the masses, the type and level of democracy that will finally be institutionalized, would ultimately be a matter of elite choice. However, there is empirical evidence which does not confirm the axiom of elite-choice approaches that institutional choices of elites are unconstrained by mass attitudes, furthermore, the tendency of structural theories to treat mass attitudes as mere reflections of structural factors has been empirically disconfirmed by some scholars (Welzel, C. 2006). On the contrary, it seems, according to empirical evidence, that mass attitudes have an effect on democratization that seems to be independent of the aforementioned "structural" factors (Welzel, C. 2006). It is worth mentioning that also the *political culture* literature examined and compared the impact of mass attitudes on democratization in several countries, whereas some scholars concluded that pro-democratic mass attitudes are essential for the florescence of already existing democracies (Putnam 1993, Muller & Seligson 1994; Hadenius & Teorell 2005) and some others highlighted the importance of pro-democratic mass attitudes for the process of democratization as such (Inglehart & Welzel 2005) and later on emphasized on liberty aspirations, which are "most clearly targeted at the essence of democracy" (Welzel, C. 2006).

Indeed, emancipative motivational forces in the population constitute an important factor both for democratization and the well-functioning of democracy. However, democracy does not only rely on liberty aspirations in the population, it also requires a spirit of inter-personal and inter-group cooperation (cooperative attitude) as well as reliable and respected institutions. Social capital, whose importance for large organizations was empirically tested and confirmed by several scholars (Fukuyama 1995; La Porta 1997), is obviously favoring democratic and institutional performance, while it is, vice versa, also favored by democratic and institutional quality. In other words, there is a two-ways dynamic relation between social capital and democracy who mutually strengthen each other.

### **3. METHODOLOGICAL FRAMEWORK**

Social networks and respect for norms are features of social capital which are important for the well functioning of democracy. However, as already noted, social networks can be exclusive (or even extractive) and do not always reflect an open, inclusive cooperative spirit. Respect for legal and ethical norms brings important added value to social capital, when this respect characterizes powerful political and business elites. Concerning the wider public, respect for norms can often be the result of repressive techniques and authoritarian indoctrination. Generalized trust, on the contrary, clearly reflects an open and inclusive predisposition, a cooperative attitude towards groups and individuals. Furthermore, level of public trust to politicians in democratic states reflects public acceptance and legitimacy of the country's political personnel, that means politically active individuals or/and groups exercising or claiming power and political office(s) by virtue of democratic, open and competitive electoral procedures. While generalized trust reflects a general cooperative attitude, public trust to politicians reflects the level of confidence to political decision making, thus predicting smoother acceptance and implementation of such decisions by the public. In this paper, we will mainly focus on these two aspects of social capital that means generalized trust and public trust to politicians, in order to highlight the level of cooperative attitude, on the one side and public confidence to politicians and their decisions, on the other, because these two aspects are of particular importance for the functioning of economy and society. Cooperative predisposition of the population and public trust to politicians that often negotiate and decide on matters of European integration and EN policies are very important within the context of Europeanization and EN policies. Furthermore, compliance of political and business elites with legal and ethical norms will be a point of further investigation.

For this reason, generalized trust, public trust to politicians and compliance of political and business elites with legal and ethical norms will be investigated, both at country and country group level according to the following country groups:

- The group of the "old" EU-15 countries, most of which (under the exceptions of Greece, Portugal and Spain) developed stable democracies after World War II and reached high standards of human development
- The group of the 12 new member states that joined the European Union after the "big-bang enlargement" of 2004. Under the exception of the two small island states of Cyprus and Malta, all these new member states had experienced decades of communist rule and had undergone a difficult phase of transition towards market economy and democratization.
- The heterogeneous group of the candidate countries most of which are successor states of former Yugoslavia with quite different backgrounds, contexts and perspectives (Croatia is already becoming an EU-member), but undergoing transformations under the common denominator of the *acquis communautaire* and pre-accession procedures, checks and obligations.
- Finally, the group of Eastern Neighboring countries, all of which are addressees of EN policies and successor states of former Soviet Union, sharing a long history of communist rule and nowadays still facing transition, democratization and even security challenges.

The members of each one of the aforementioned groups will be compared to each other and the average of the other three groups. In this way, dissimilarities and similarities within each group and at the same time among these four groups can be identified and combined.

Findings evaluated are based on data coming from the following sources:

-The Global Competitiveness Report (GCR) published by the World Economic Forum (WEF). Based on annual Executive Opinion Surveys, the GCR provides a *Global Competitiveness Index* for each country (GCI), reflecting different aspects of the competitiveness of an economy. The WEF (World Economic Forum, 2011) defines *competitiveness* as *the set of institutions, policies, and factors that determine the level of productivity of a country*. The level of productivity, in turn, sets the level of prosperity that can be earned by an economy. The Global Competitiveness Index includes a weighted average of many different components, each measuring a different aspect of competitiveness. These components are grouped into 12 interrelated pillars of competitiveness (Quality of Institutions, Infrastructure, Macroeconomic Environment, Health and Primary Education, Higher Education and Training, Goods Market Efficiency, Labor Market Efficiency, Financial Market Development, Technological Readiness, Market Size, Business Sophistication, Innovation). The GCI uses various data sources for statistics but also the World Economic Forum's annual Executive Opinion Survey (Survey) to capture concepts that require a more qualitative assessment (WEF 2011). As an assessment of economic capacity and performance, the GCI has some advantages in comparison to GDP or GDP Growth, since it includes a series of many different variables affecting economic performance and is not simply a measure of production of goods and services. Moreover, criticism on GDP has pointed out since decades, that it is not an adequate and reliable measure of social welfare, development and prosperity (Galbraith 1958).

- Based on the aforementioned Global Competitiveness Report (GCR) a "composite" Index of *Institutional Quality* has been developed in order to compare different national institutional environments, after selecting a number of indicators (18 in total) and constructing four new "pillars" that constitute crucial aspects of institutional quality. These pillars were "Government Effectiveness", "Regulatory Quality", "Rule of Law" and "Control of Corruption" (Hlepas, 2012). –Apart from the aforementioned composite Index of Institutional Quality, also scores concerning the single pillar "Control of Corruption" and the indicator "public trust in politicians" will be shown and compared (Hlepas 2012), since the pillar "control of corruption" shows how far political and business elites in a country follow legal and ethical norms<sup>7</sup>.

- Concerning the core element of social capital, interpersonal or generalized trust, this is reflected through the percentage of people who answered that "others" their society could be trusted. Percentage of people

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<sup>7</sup>The Pillar «Control of Corruption» (Hlepas 2012) included the indicators : 1. Diversion of public funds (Question : « In your country, how common is diversion of public funds to companies, individuals, or groups due to corruption?») and 2 Ethical behavior of firms (Question : How would you compare the corporate ethics (ethical behaviour in interactions with public officials, politicians, and other enterprises) of firms in your country with those of other countries in the world?)

who trust strangers in a society is obviously a good measure of cooperative predisposition. Data are from 2012, Gallup World Poll & World Values Survey, elaborated by the Legatum Institute (2012).

- Arguments against GDP as a measure (s. also above) were among the causes that led to the conception of another index of development, the *Human Development Index* (HDI), which has been created by Mahbub ul Haq, followed by Amartya Sen in 1990. HDI is measuring development by combining indicators of life expectancy, educational attainment and income (Health-Education-Living Standards) into a composite index, a single statistic which serves as a frame of reference for both social and economic development. The HDI sets a minimum and a maximum for each dimension, called goalposts, and then shows where each country stands in relation to these goalposts, expressed as a value between 0 and 1. Data for Human Development reports are collected from UN authorities, UNESCO and the World Bank, not directly from countries (UNDP 2011).

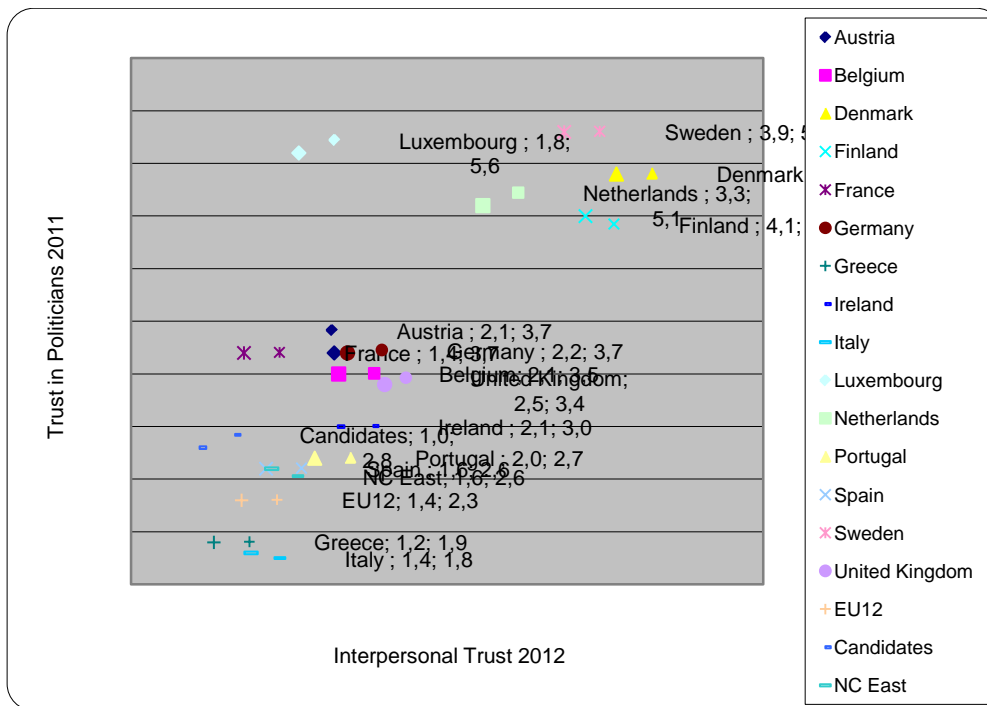
- Concerning especially the level of democracy, data from the "Economist Intelligence Unit's index of democracy" have been used. This index, on a 0 to 10 scale, is based on the ratings for 60 indicators grouped in five categories: 1. electoral process and pluralism; 2. civil liberties; 3. the functioning of government; 4. political participation; and 5. political culture. Each category has a rating on a 0 to 10 scale, and the overall index of democracy is the simple average of the five category indexes. The category indexes are based on the sum of the indicator scores in the category, converted to a 0 to 10 scale. Adjustments to the category scores are made if countries do not score a 1 in the following critical areas for democracy: 1. whether national elections are free and fair; 2. the security of voters; 3. the influence of foreign powers on government; 4. the capability of the civil service to implement policies. If the scores for the first three questions are 0 (or 0.5), one point (0.5 point) is deducted from the index in the relevant category (either the electoral process and pluralism or the functioning of government). If the score for 4 is 0, one point is deducted from the functioning of government category index. The index values are used to place countries within one of four types of regimes: 1. Full democracies: scores of 8-10; 2. Flawed democracies: score of 6 to 7.9; 3. Hybrid regimes: scores of 4 to 5.9; 4. Authoritarian regimes: scores below 4 (Economist Intelligence Unit 2011).

## **4. RESEARCH FINDINGS**

### **4.1. The "old" EU-15 countries**

Beginning with the group of the EU-15 countries, the level of interpersonal (generalized) trust has been compared to the level of public trust to politicians in every single EU-15 country, while also the average of the twelve new EU members (enlargement countries), of the candidate countries and of the Eastern Neighboring Countries are being included:

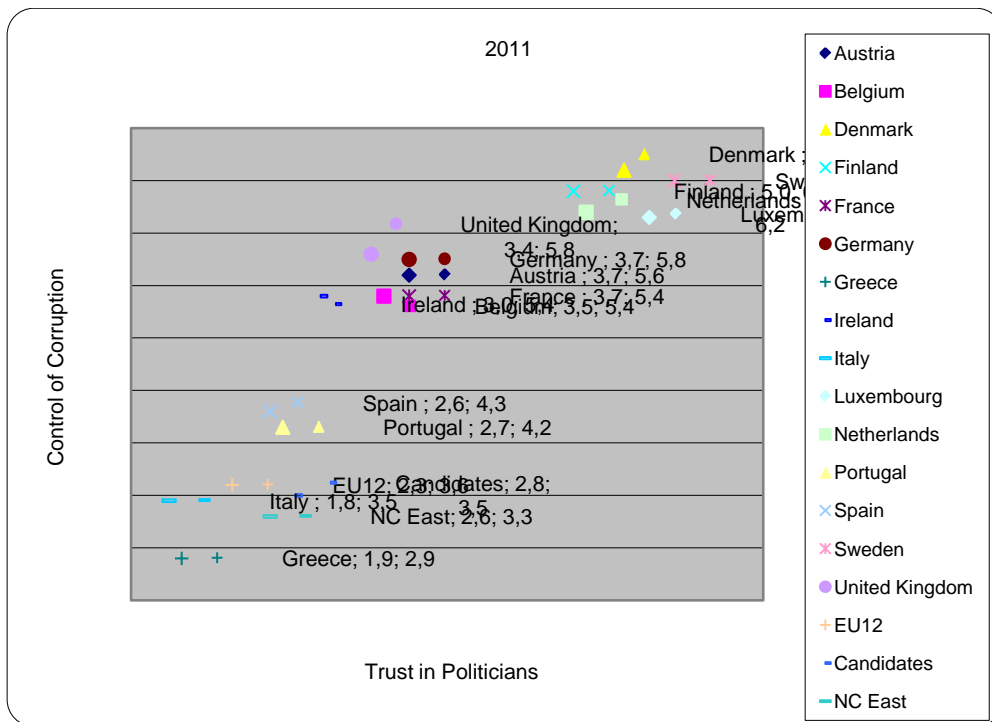
**Figure 1:** Interpersonal Trust and Public Trust in Politicians in each one of the EU-15 countries and average scores of the new EU-12, the candidate countries and the Eastern NC's



According to the findings, countries with the highest scores of interpersonal trust also reach the highest scores of public trust in politicians. However, concerning the rest of EU-15, *an analogy between the level of interpersonal trust and the level of public trust in politicians does not seem to exist*. For instance, level of interpersonal trust in U.K. is higher than in France, but French score of public trust in politicians is higher than in the U.K. It is worth mentioning that in Southern Europe, interpersonal trust seems to be much weaker, similar to the levels of new EU12, and Eastern NC's, while the candidate countries have the lowest scores. Public trust in politicians seems to nearly collapse in Greece and Italy (in Greece, this is obviously a result of the crisis: Hlepas 2012), while the respective average is very low in the new EU12 countries and in Eastern European NC's. Trust in politicians in Portugal, Spain and Ireland is a bit higher than the previous cases, but it is obvious that in countries nowadays primarily affected by the crisis level of public trust in politicians is remarkably lower than in the rest of EU-15 and comparable to the groups of the new EU members, the Eastern NC's and the candidate countries.

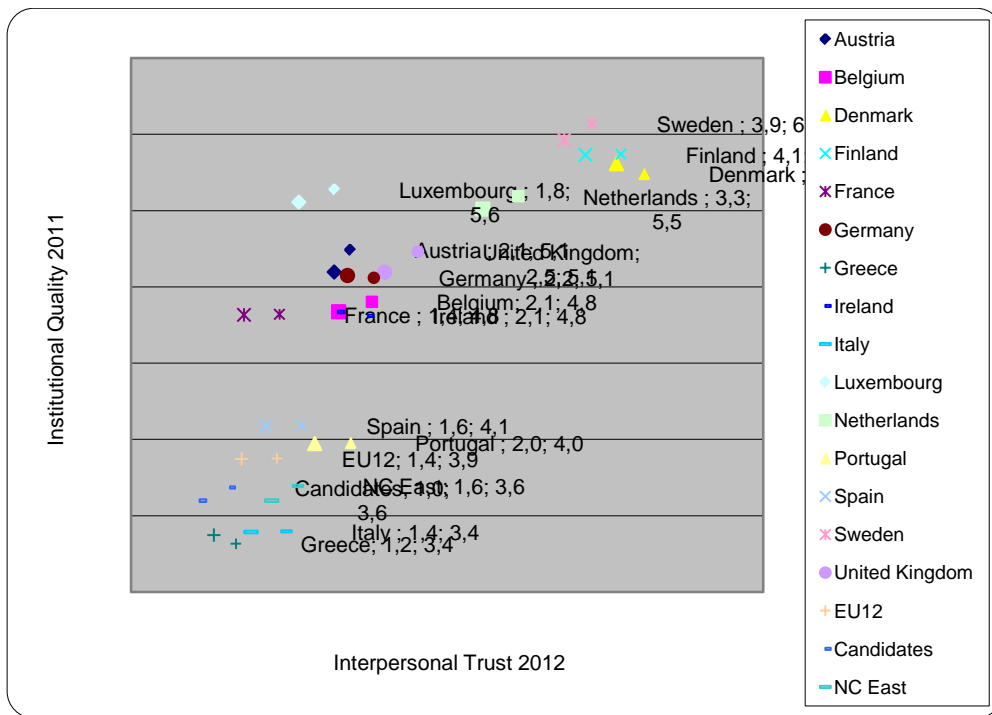
**Figure 2:** Control of Corruption (elite compliance with legal and social norms) and Public Trust in Politicians in each one of the EU-15 countries and average scores of the new EU-12, the candidate countries and the Eastern NC's





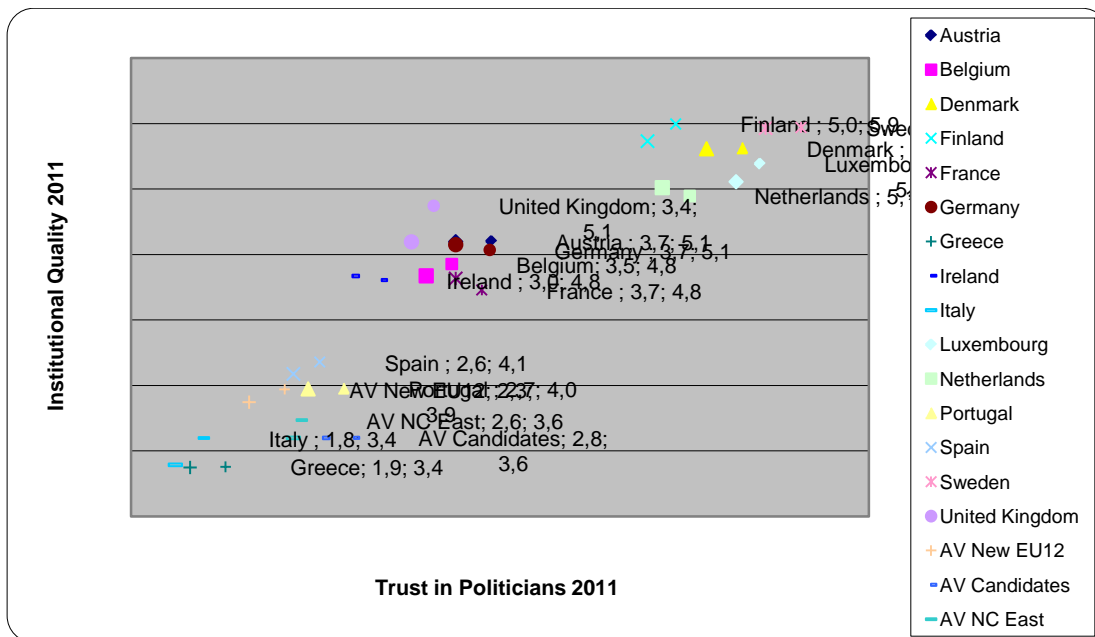
An analogy seems to exist, between the level of public trust in politicians and scores in control of corruption (compliance of political and business elites with ethical and legal norms) in the aforementioned countries and groups of countries. Once more, countries with the highest levels of social capital and, more particularly in this case, with high levels of public trust in politicians show the highest scores also concerning control of corruption. But also in the rest of countries, level of public trust in politicians seems to correspond to the level of elite compliance to norms (“corruption control”). Elites in South European EU-12 countries, seem to score, concerning compliance to norms, at levels which are comparable to the average of the new EU12 countries, the candidate countries and Eastern European NC’s, while Greece has the worse score.

**Figure 3:** Interpersonal Trust and Institutional Quality in each one of the EU-15 countries and average scores of the new EU-12, the candidate countries and the Eastern NC’s



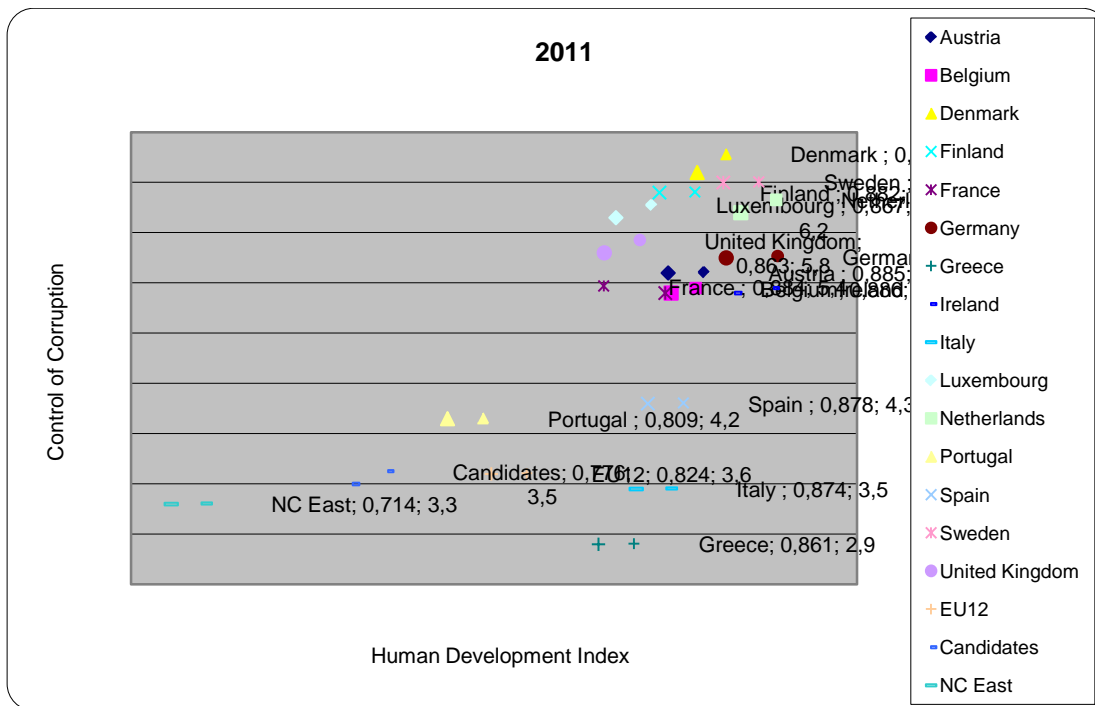
An analogy seems also to exist, between the level of interpersonal (generalized) trust and scores in institutional quality in the aforementioned countries and groups of countries. Once more, countries with the highest levels of social capital and, more particularly in this case, with high levels of generalized trust show the highest scores also concerning the institutional quality index (Hlepas 2012). But also in the rest of countries, level of interpersonal trust seems to correspond to the level of institutional quality, under the exception of France, where a comparatively low level of generalized trust (similar to Southern European Countries) does not correspond to its higher level of institutional quality (comparable to Belgium and just a bit lower than Germany and the U.K.). Institutional Quality Index in South European EU-15 countries is, more or less comparable to the average of the new EU12 countries, the candidate countries and Eastern European NC's, while Greece and Italy have the worse scores.

**Figure 4:** Public Trust in politicians and Institutional Quality in each one of the EU-15 countries and average scores of the 12 new EU members, of the candidate countries and the Eastern NC's



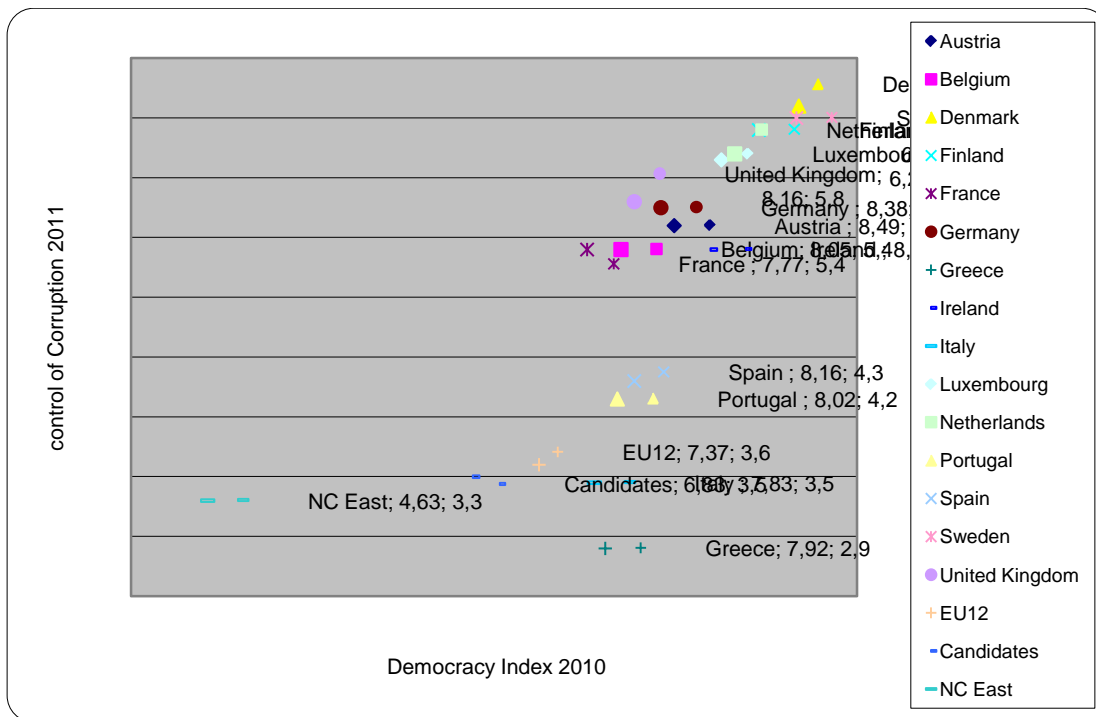
Public trust in politicians seems to clearly reflect scores in institutional quality. Indeed, Scandinavian countries, the Netherlands and Luxembourg once more constitute a distinctive sub-group with highest scores in both categories, while middle European and Anglo-Saxon countries constitute another sub-group with high scores and Southern European EU-15 members constitute another distinctive sub-group with low scores, which are comparable to the average of the new member states (new EU12), the candidates and the Eastern NC's, while Greece and Italy have the lowest scores in both categories.

**Figure 5:** Elite compliance with legal and ethical norms (Control of Corruption) and Human Development Index in each one of the EU-15 countries and average scores of the new EU-12, the candidate countries and the Eastern NC's



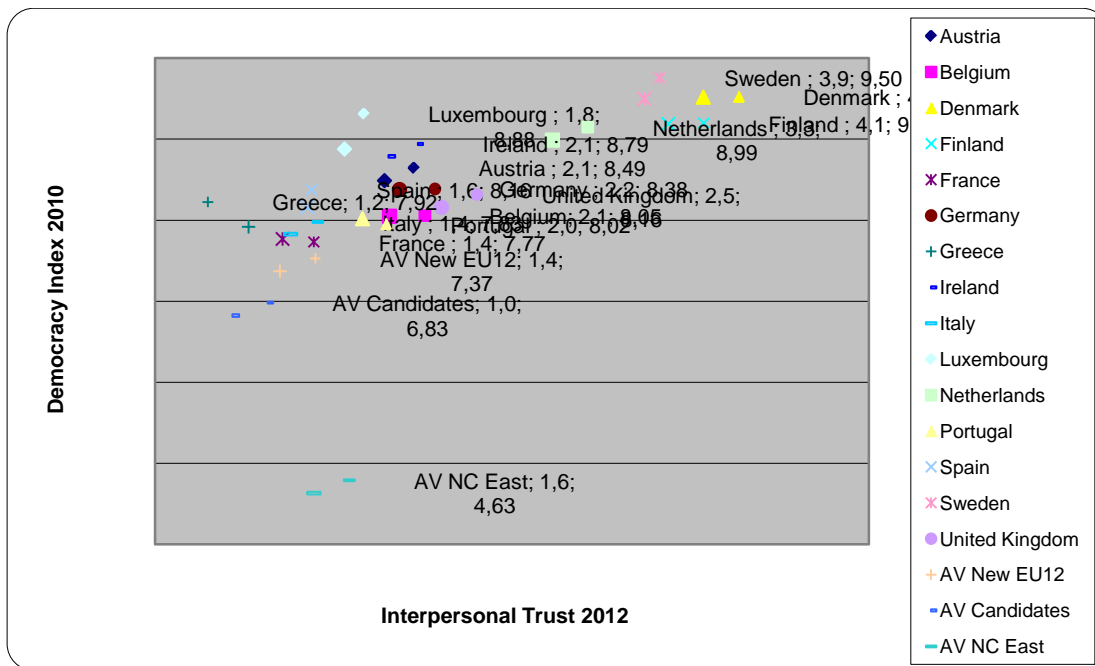
An analogy seems also to exist, between the level of elite compliance with legal and ethical norms and high scores in human development index in most of the EU-15 countries. This is not the case in Southern Europe, where high scores in human development index coincide with low level of elite compliance to norms, probably reflecting cultural and social traditions of clientelism and high-class impunity, as well as deficiencies in the rule of law. On the other hand, it is obvious that the level of *Europeanization corresponds to scoring in human development*. In other words, the more a country or a group of countries has proceeded in Europeanization, the higher is the scoring in Human Development.

**Figure 6:** Elite compliance with legal and ethical norms (Control of Corruption) and Democracy Index in each one of the EU-15 countries and average scores of the new EU-12, the candidate countries and the Eastern NC's



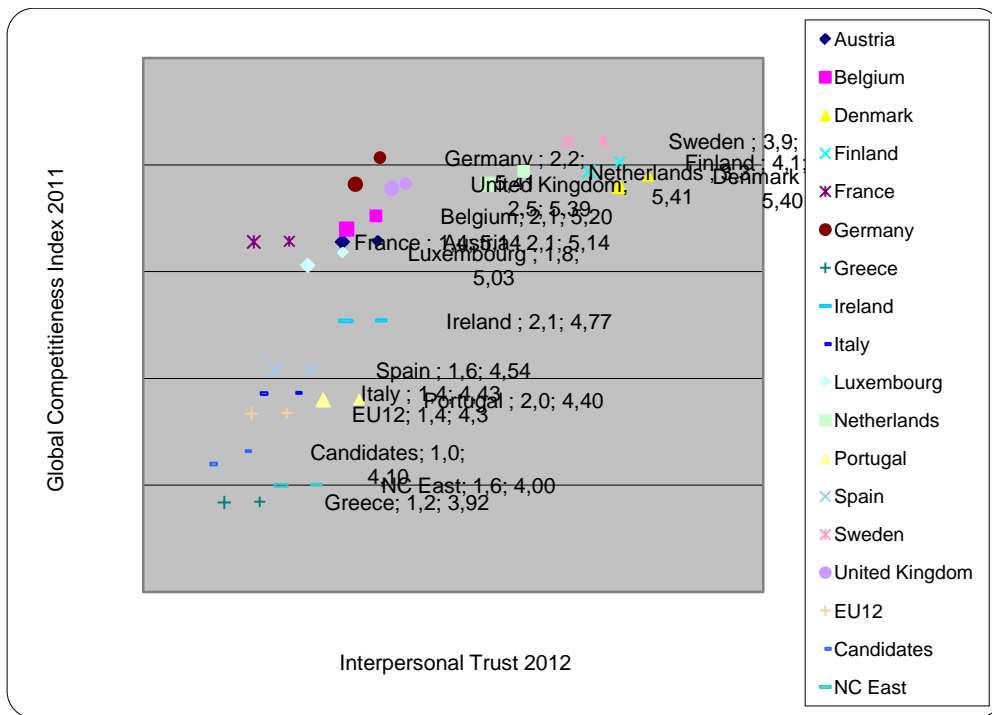
An analogy seems also to exist, between the level of elite compliance with legal and ethical norms (Control of Corruption) with high scores in democracy index in most of the EU-15 countries. Indeed, open societies and developed democracies seem to be characterized through elite compliance. This is not the case in Southern Europe, where relatively high scores in democracy index coincide with low level of elite compliance to norms, probably reflecting cultural and social traditions of clientelism and high-class impunity, as well as deficiencies in the rule of law. On the other hand, it is obvious that the level of *Europeanization also corresponds to scoring in democracy*. In other words, the more a country or a group of countries has proceeded in Europeanization, the higher is the scoring in Democracy.

**Figure 7:** Generalized interpersonal trust and Democracy Index in each one of the EU-15 countries and average scores of the 12 new EU members, the candidate countries and the Eastern NC's



Among the EU-15 countries, a positive relationship between the level of interpersonal trust and scoring in Democracy Index seems to exist. Indeed, Scandinavian countries and the Netherlands, constitute, also under this point of view a distinctive group with strong interpersonal trust and highest scores in democracy index. Central European EU-15 members and the British isles form a second sub-group where scores in interpersonal trust as well as in democracy index are, while Southern EU-15 members show lower scores in interpersonal trust, but not score more or less at the same level, compared to Central European EU-15 members, in democracy index. It is surprising that France has the lowest score in democracy index and the second lowest score in generalized interpersonal trust among all EU-15 members.

**Figure 8:** Generalized interpersonal trust and Global Competitiveness Index in each one of the EU-15 countries and average scores of the 12 new EU members, the candidate countries and the Eastern NC's

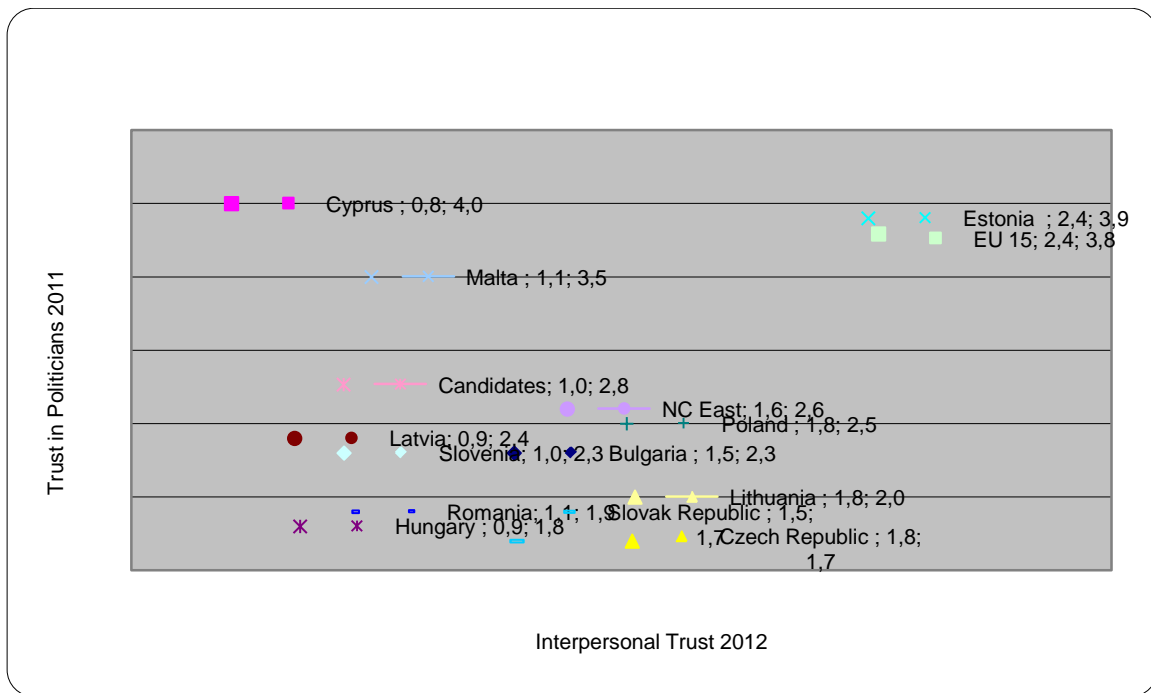


Among the EU-15 countries, a positive relationship between the level of generalized interpersonal trust and scoring in Global Competitiveness Index seems to exist. However, concerning competitiveness, differences are not that big, except of the sub-group of Southern EU-15 members, which constitute a distinctive group with low scores. New member states, candidate countries and Eastern NC's are obviously less competitive than EU-15 countries (under the exception of Greece), thus that the level of *Europeanization also corresponds to scoring in global competitiveness.*

#### 4.2. The new EU members

The next group is the one of the twelve new EU members, because these are countries which have followed the EU-15 countries, after the enlargement of 2004, in the Europeanization path. The level of interpersonal (generalized) trust has been compared to the level of public trust to politicians in each one of the twelve new EU members, while also the average in the groups of “old” EU-15 members, of the candidate countries and of the Eastern Neighboring Countries are being included:

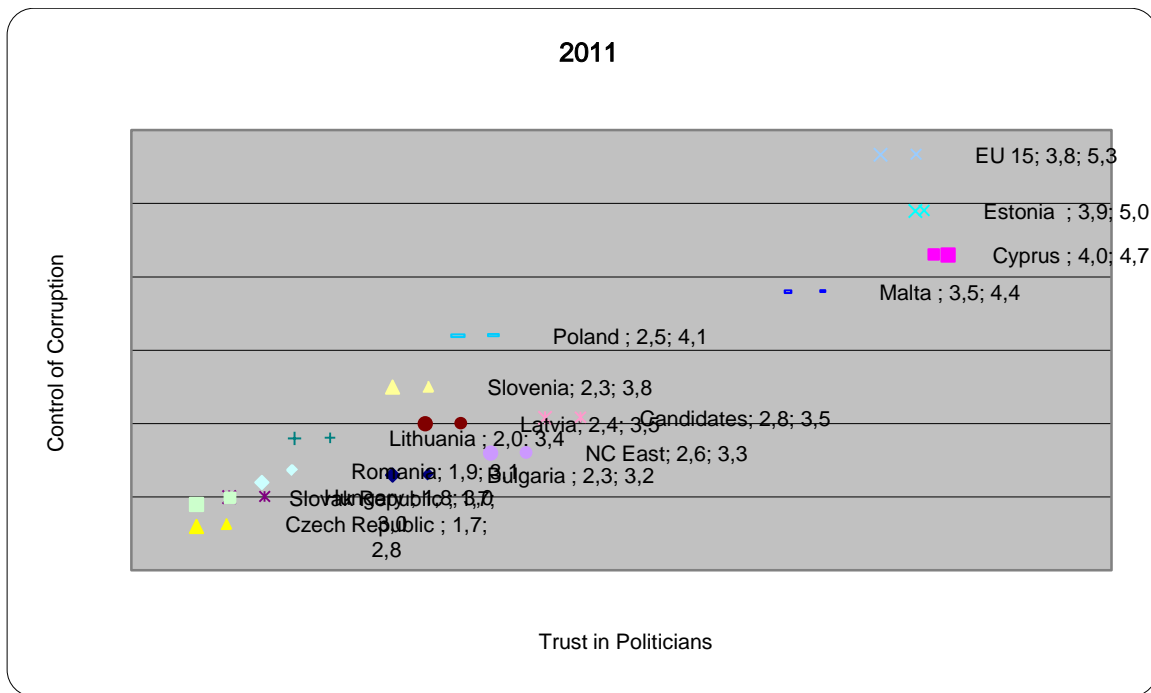
**Figure 9:** Interpersonal Trust and Public Trust in Politicians in each one of the “new” EU-12 countries and average scores of the EU-15, the candidate countries and the Eastern NC's



In most of the new EU-12 countries , *an analogy between the level of interpersonal trust and the level of public trust in politicians does not seem to exist*. Estonia is the only country with high score in both sorts of trust. Public trust in politicians is obviously higher in Cyprus and in Malta two small island countries sharing a British colonial legacy, while these two countries show the paradox of very low scores in interpersonal trust, although they have not experienced communist rule and only have a small number of inhabitants. Public trust in politicians is very low (even lower than in candidate countries and Eastern NC countries) in all the new EU-members that experienced communist rule and difficult transition periods. In these countries, it seems that Europeanization and Democratization could not restore public trust in politicians.

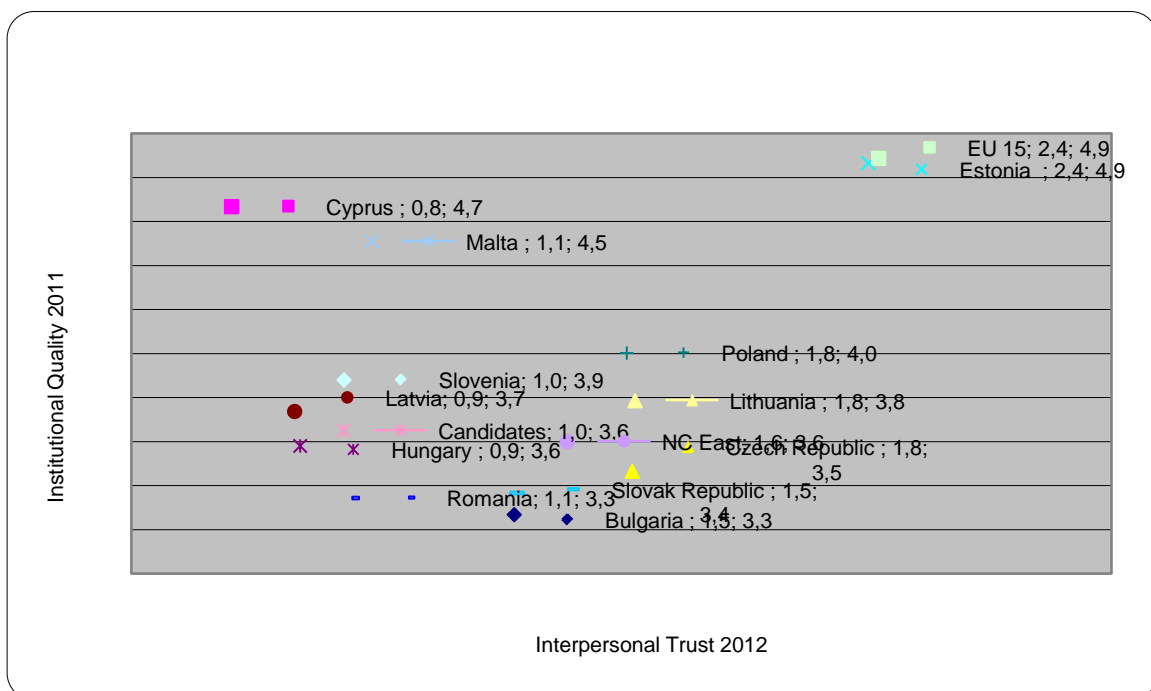
**Figure 10:** Control of Corruption (elite compliance with legal and social norms) and Public Trust in Politicians in each one of the new EU-12 countries and average scores of the EU-15, the candidate countries and the Eastern NC's





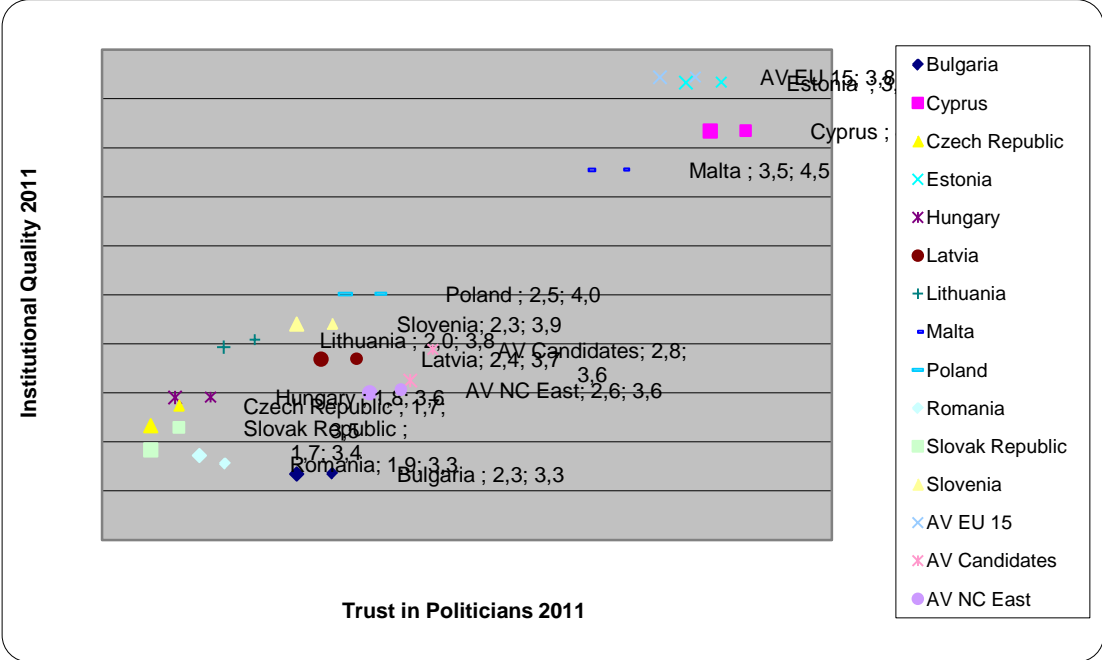
Also among the new EU-12 countries an analogy seems to exist, between the level of public trust in politicians and scores in control of corruption (compliance of political and business elites with ethical and legal norms). Estonia, Cyprus and Malta have the highest scores in both categories, while Poland and Latvia have also comparatively high scores. Surprisingly, the central European states of Hungary, Czech Republic and Slovak Republic show the lowest scores although they share a communist past with important reform experiences and mass mobilizations demanding for democratization.

**Figure 11:** Interpersonal Trust and Institutional Quality in each one of the EU-15 countries and average scores of the new EU-12, the candidate countries and the Eastern NC's



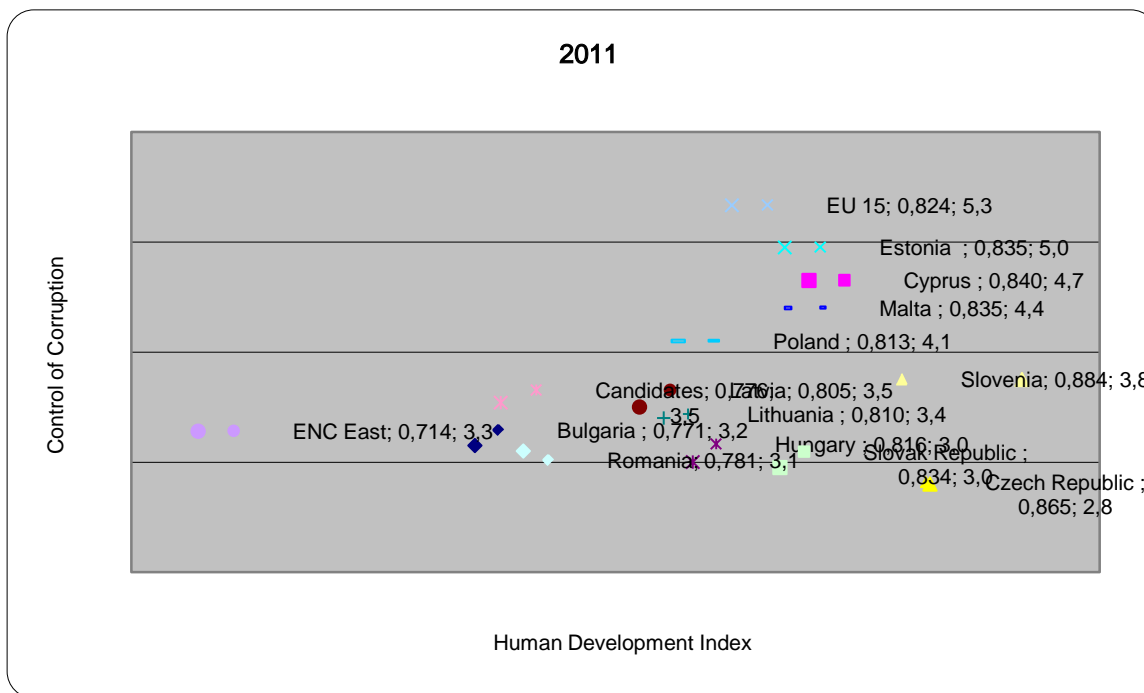
Among the new EU-12 members, there is no clear analogy between the level of interpersonal (generalized) trust and scores in institutional quality. Estonia is the only country reaching EU-15 standards in both categories, while Cyprus and Malta combine high level of institutional quality but quite low levels of interpersonal trust. Poland and, to a smaller extent, Lithuania combine comparatively higher levels of institutional quality with higher levels of interpersonal generalized trust.

**Figure 12:** Public Trust in politicians and Institutional Quality in each one of the 12 new EU members and average scores of the EU-15 countries, of the candidate countries and the Eastern NC's



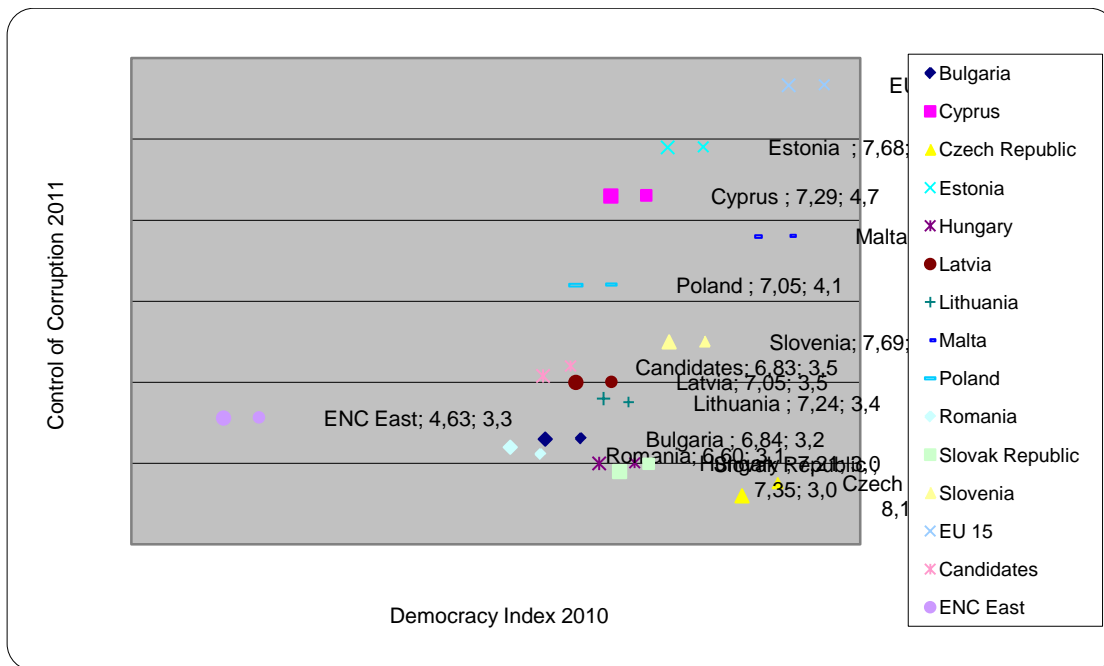
Public trust in politicians seems to clearly reflect scores in institutional quality. Once more, Estonia, Cyprus and Malta seem to constitute the distinctive sub-group with high scores. Among the rest of the countries Poland has higher scores, while Bulgaria is the country where public trust in politicians is as high as in countries with much better scores in institutional quality. Candidate and Eastern NC's score obviously higher than most of the new EU members concerning public trust in politicians.

**Figure 13:** Elite compliance with legal and ethical norms (Control of Corruption) and Human Development Index in each one of the new EU-12 countries and average scores of the EU-15, the candidate countries and the Eastern NC's



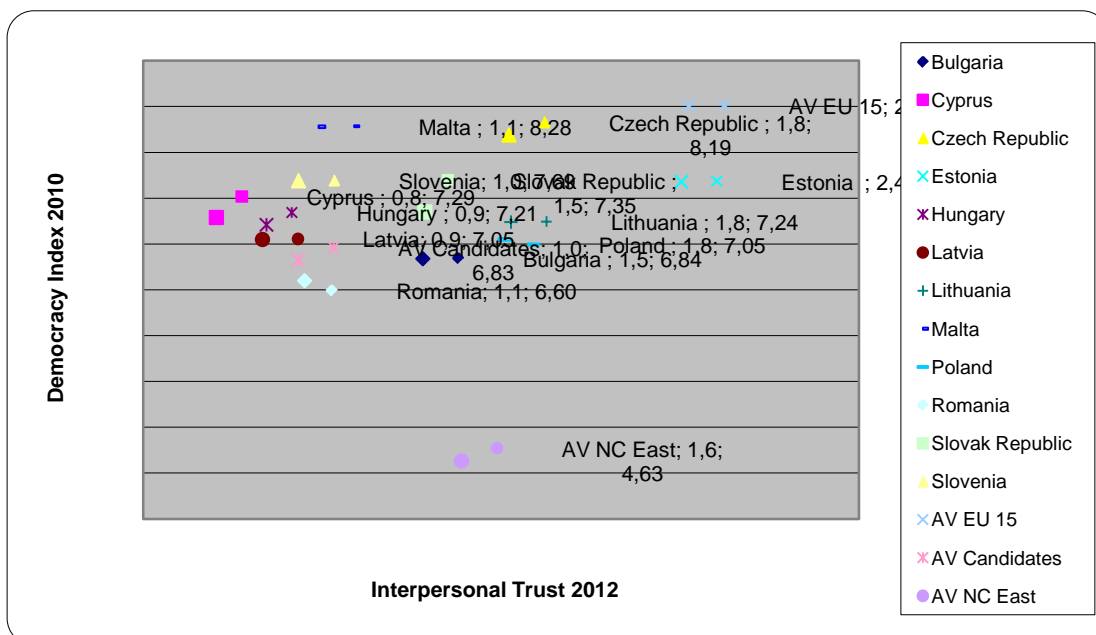
Concerning the level of elite compliance with legal and ethical norms in relation to human development index, it seems that only Estonia, Cyprus and Malta combine high scores in both aspects. On the contrary, the Czech Republic (to a smaller extent also the Slovak Republic) with one of the highest scores in human development shows an extremely low level of elite compliance with legal and ethic norms. Many of the new EU members show higher scores of elite compliance even compared to candidate countries and Eastern NC's, while nearly all new EU members (apart from Bulgaria) show higher levels of human development than the average candidate countries and Eastern NC's. Eight years after EU-accession, it seems that *elite compliance with norms still constitutes a major challenge of new member states*.

**Figure 14:** Elite compliance with legal and ethical norms (Control of Corruption) and Democracy Index in each one of the 12 new EU countries and average scores of the old EU-15, the candidate countries and the Eastern NC's



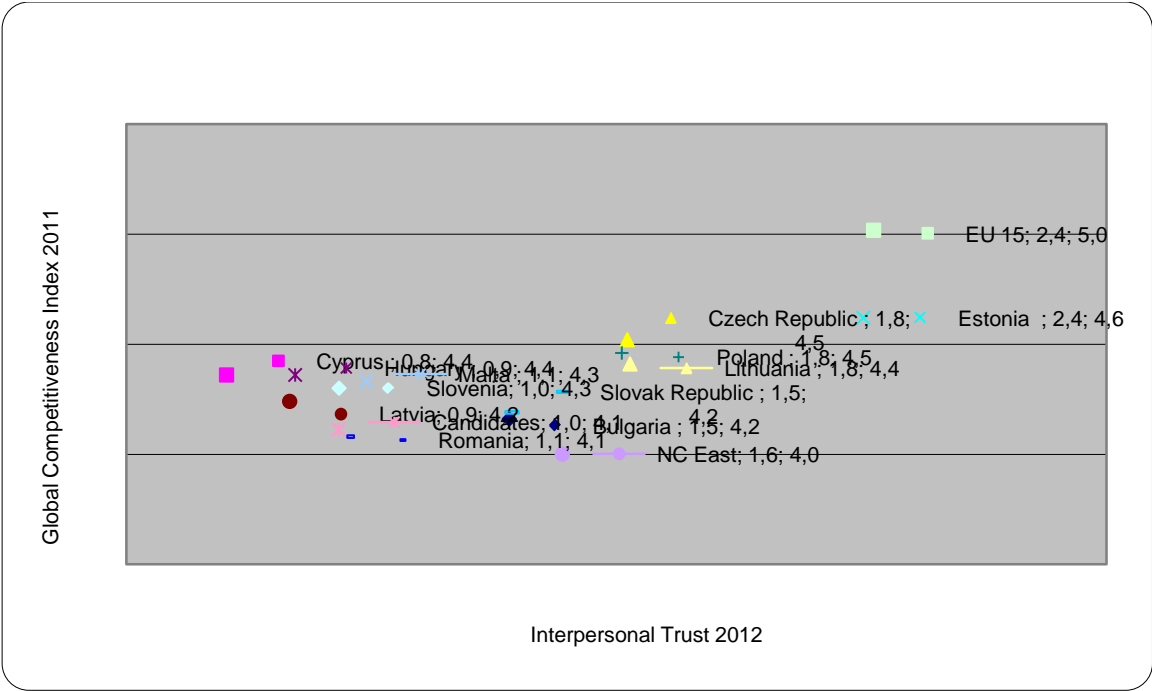
Among the 12 new EU-members, elite compliance with legal and ethical norms (Control of Corruption) corresponds with high scores in democracy index in Estonia, Cyprus, Malta and, to a lesser extent, in Poland. Elite compliance is particularly low in Central European EU members Hungary, Slovak Republic and Czech Republic which are countries (especially the Czech Republic scoring quite high in Democracy Index). Once more, Bulgaria and Romania seem to be a special case since they combine lower scores in Democracy Index (even lower than Candidate countries) with some of the lowest scores in elite compliance.

**Figure 15:** Generalized interpersonal trust and Democracy Index in each one of the 12 new EU members and average scores of the EU-15 members, the candidate countries and the Eastern NC's



Among the twelve new EU members relationship between the level of interpersonal trust and scoring in Democracy Index seems to exist but is not always clear. An analogy between these two scores seems to exist in Estonia, Lithuania, Poland, Bulgaria and Romania. On the other hand, Malta has a very high score in democracy index but a low score in generalized interpersonal trust, while a similar picture can be found in Slovenia and Cyprus.

**Figure 16:** Generalized interpersonal trust and Global Competitiveness Index in each one of the 12 new EU members and average scores of the EU-15 members, the candidate countries and the Eastern NC's



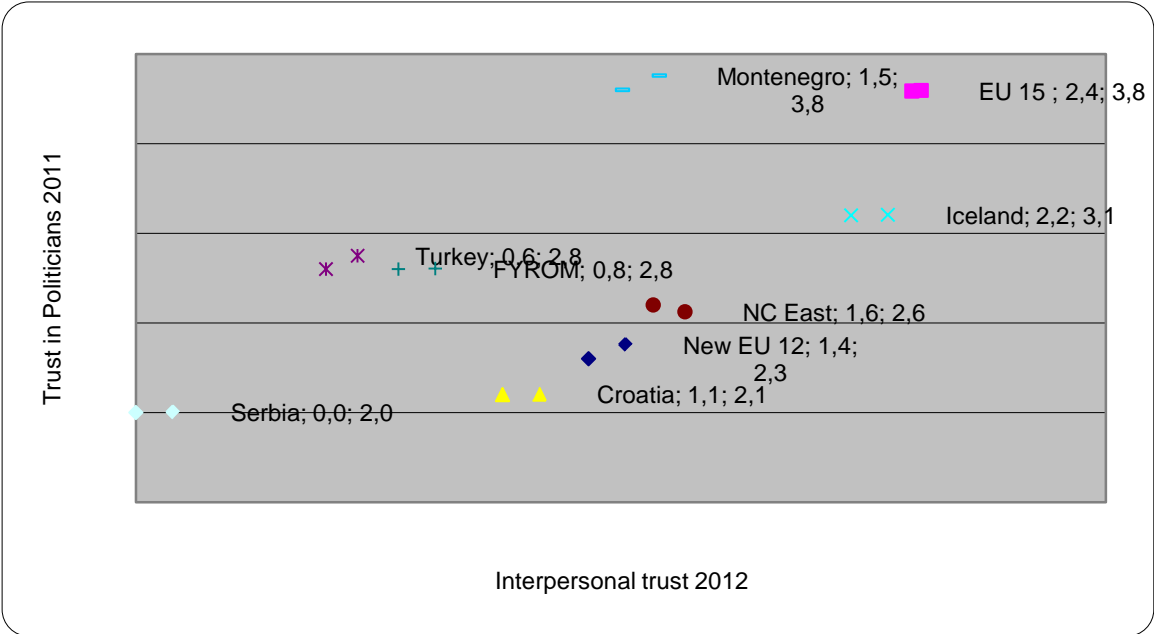
Among most of the twelve new EU members, a positive relationship between the level of generalized interpersonal trust and scoring in Global Competitiveness Index seems to exist. Cyprus, Hungary and Latvia have, however, very low scores in generalized trust while their scores in global competitiveness are higher than in many other countries of this group.

**4.3. The candidate countries**

The next group, is the group of the candidate countries which gradually adjust to the *acquis communautaire*, preparing for EU full membership. By analogy to the previous groups, firstly the level of interpersonal (generalized) trust has been compared to the level of public trust to politicians in every single candidate

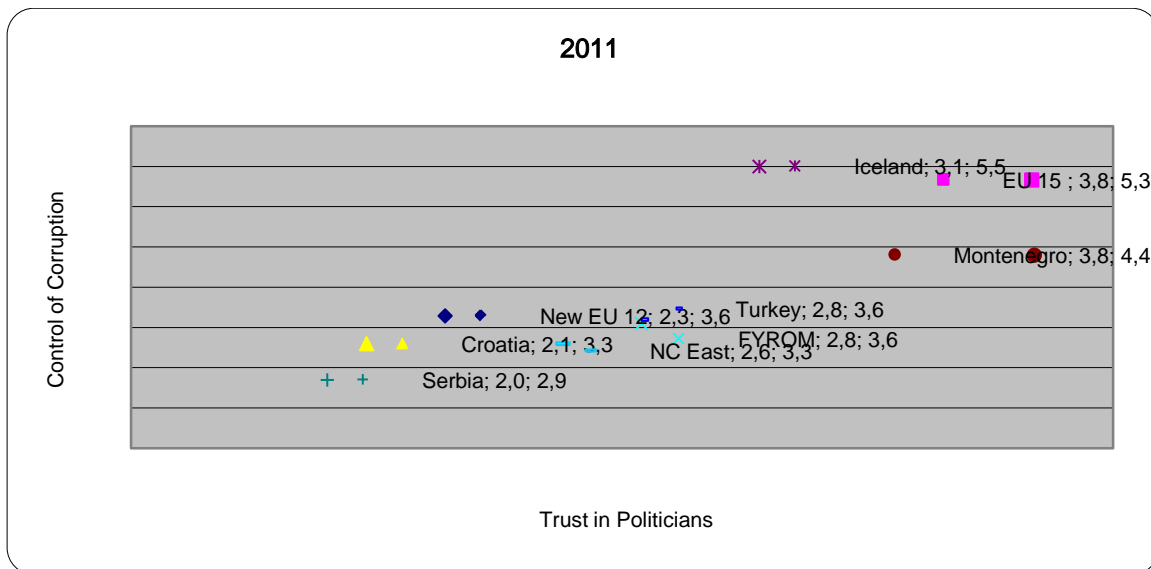
country, while also the average in the groups of new EU-12 (enlargement countries) members, of the “old” EU-15 members and of the Eastern Neighboring Countries are being included:

**Figure 17:** Interpersonal Trust and Public Trust in Politicians in each one of the candidate countries and average scores of the EU-15, the twelve “new” EU-members and the Eastern NC’s



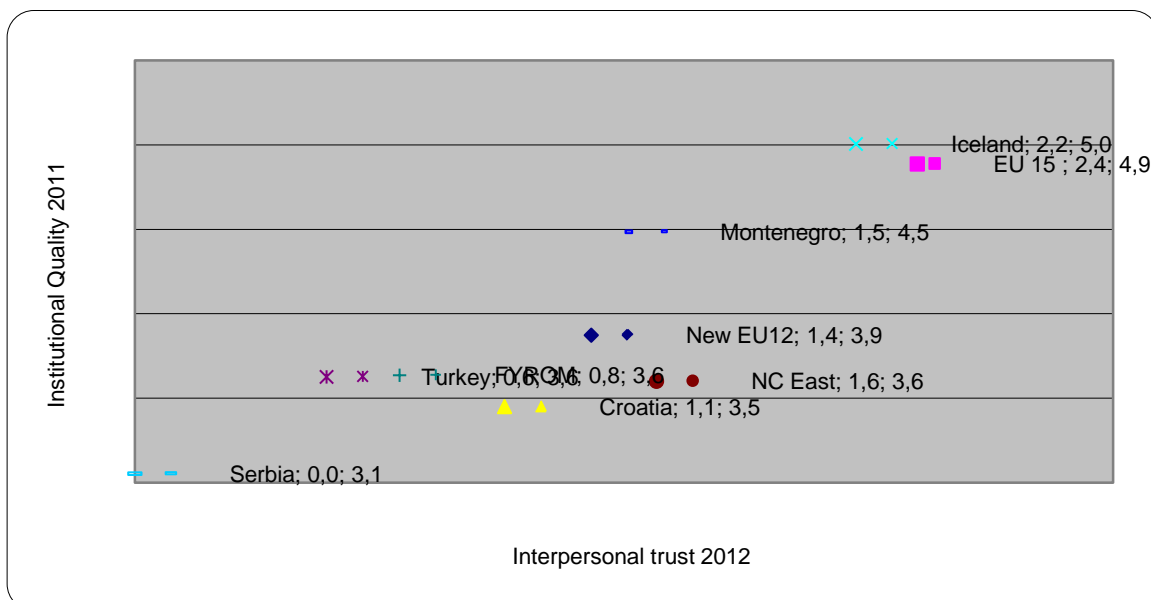
Also in most of the candidate countries, *an analogy between the level of generalized interpersonal trust and the level of public trust in politicians does not seem to exist*. Iceland is the country with highest scores in both sorts of trust, while Montenegro comes next. Public trust in politicians is obviously higher in Turkey and FYR of Macedonia, although precisely these two countries have very low scores in generalized interpersonal trust. Concerning the latter, most candidate countries score lower than new EU members and Eastern NC’s.

**Figure 18:** Control of Corruption (elite compliance with legal and social norms) and Public Trust in Politicians in each one of the candidate countries and average scores of the EU-15, the 12 new EU-members and the Eastern NC’s



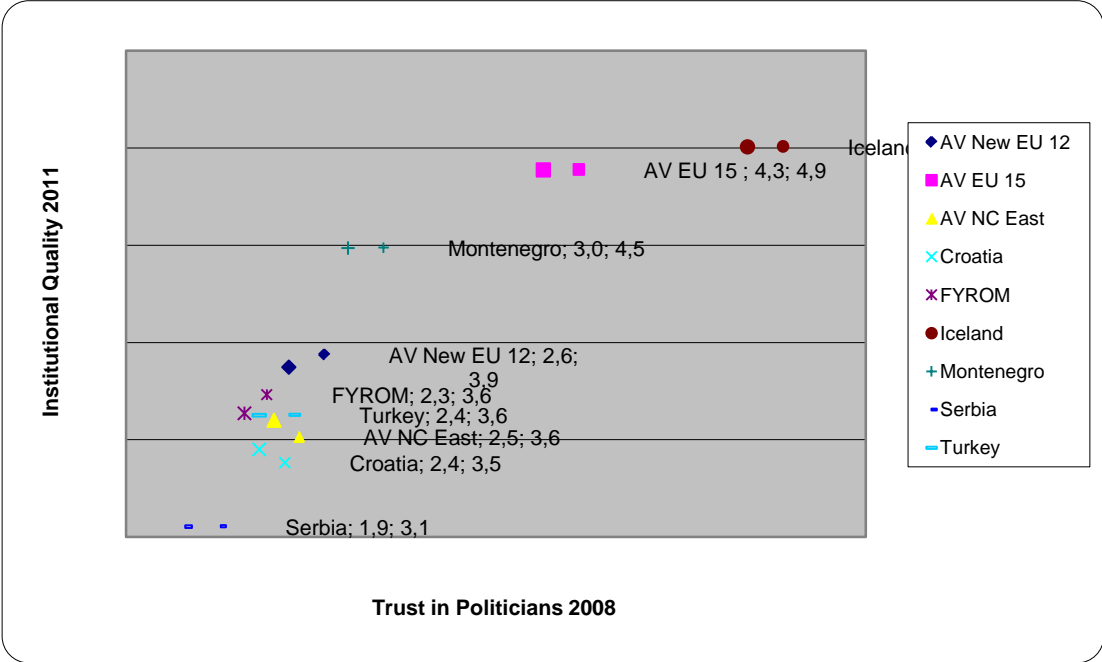
Also among the candidate countries an analogy seems to exist, between the level of public trust in politicians and scores in control of corruption (compliance of political and business elites with ethical and legal norms). Montenegro and Iceland have the highest scores in both categories, while Turkey and FYROM have also comparatively high scores. Surprisingly, the average of the 12 new EU members is lower than in the aforementioned countries, while Croatia and Serbia have the lowest scores.

**Figure 19:** Interpersonal Trust and Institutional Quality in each one of the candidate countries and average scores of the EU-15, the 12 new EU-members and the Eastern NC's



Among the candidate countries an analogy exists between the level of interpersonal (generalized) trust and scores in institutional quality. Iceland is the only country reaching EU-15 standards in both categories,

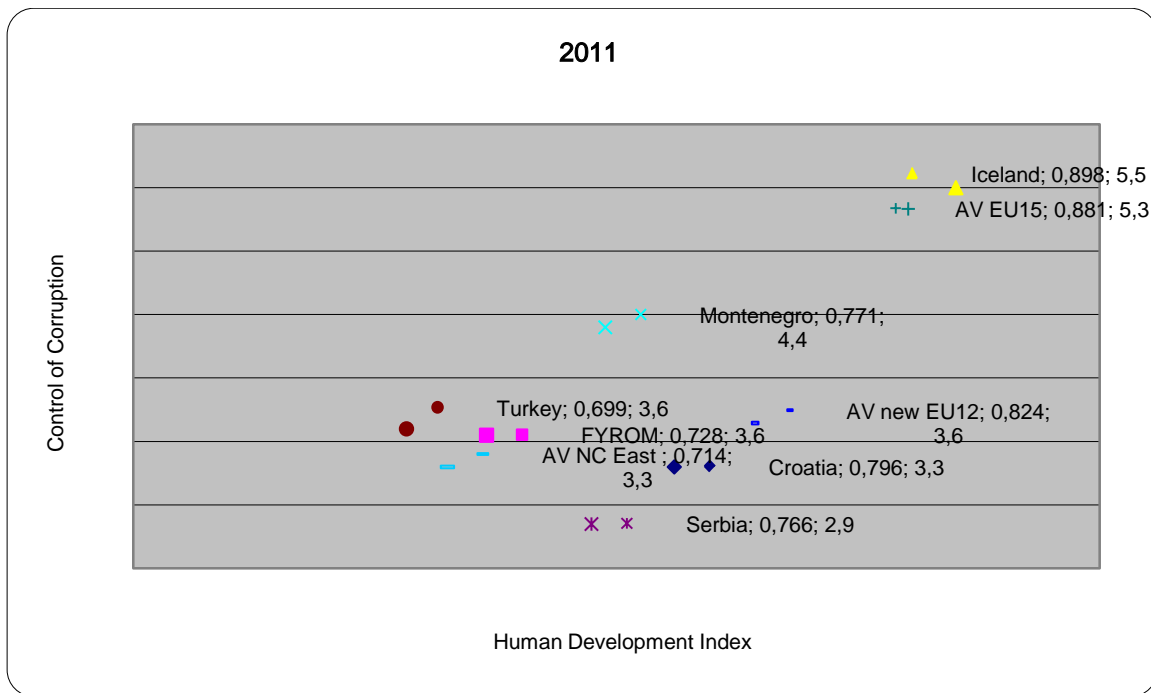
**Figure 20:** Public Trust in politicians and Institutional Quality in each one of the candidate countries and average scores of the EU-15, the 12 new EU-members and the Eastern NC's



Also in this group of countries, public trust in politicians seems to clearly reflect scores in institutional quality. Once more, Iceland and Montenegro have the highest score, Croatia and Serbia the lowest.

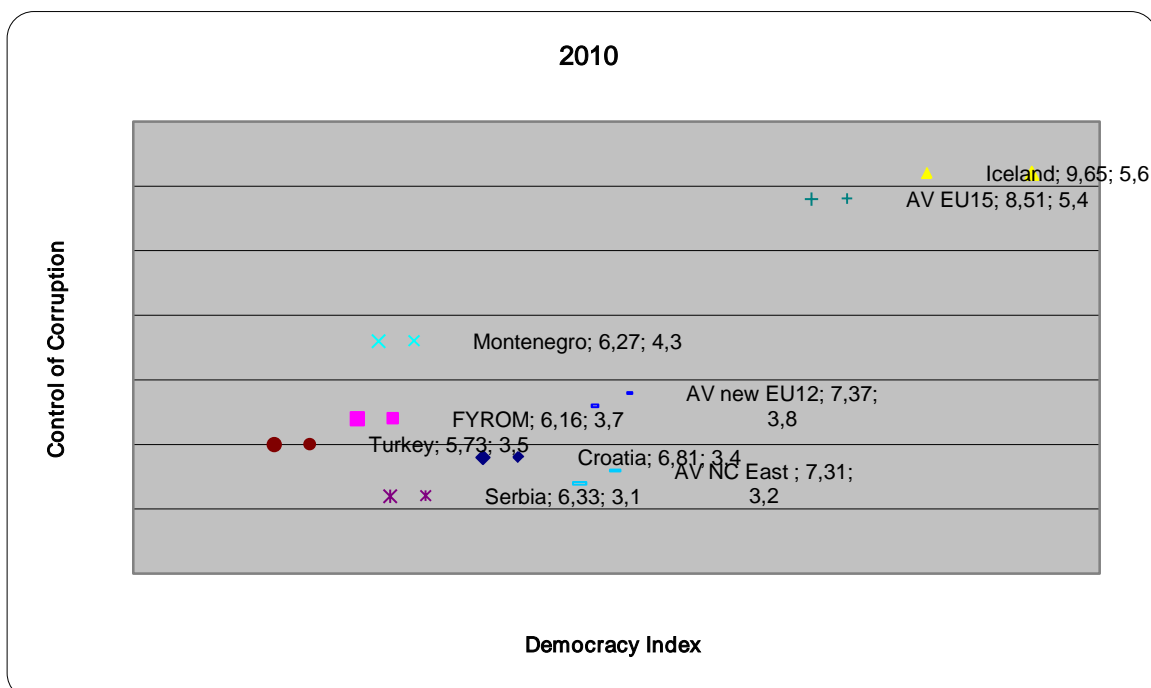
**Figure 21:** Elite compliance with legal and ethical norms (Control of Corruption) and Human Development Index in each one of the candidate countries and average scores of the EU-15, the 12 new EU-members and the Eastern NC's





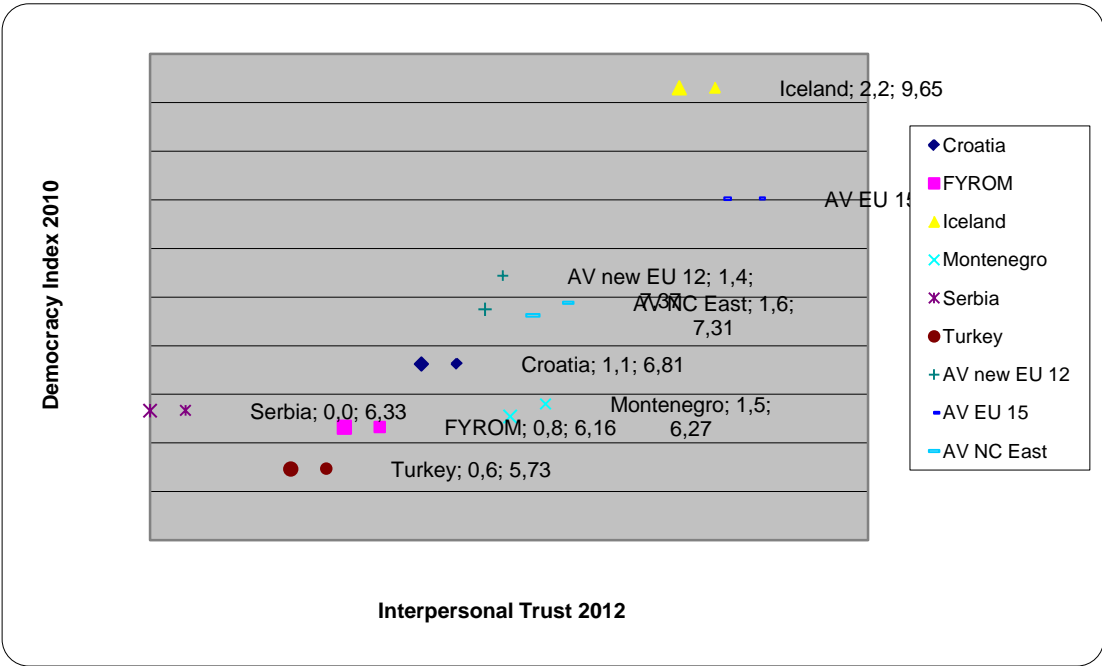
Concerning the level of elite compliance with legal and ethical norms in relation to human development index, it seems that only Iceland reaches EU-15 standards, while Montenegro scores higher than the average of new EU-members. *Elite compliance with norms constitutes an important challenge for candidate countries.*

**Figure 22:** Elite compliance with legal and ethical norms (Control of Corruption) and Democracy Index in each one of the candidate countries and average scores of the EU-15, the 12 new EU-members and the Eastern NC's



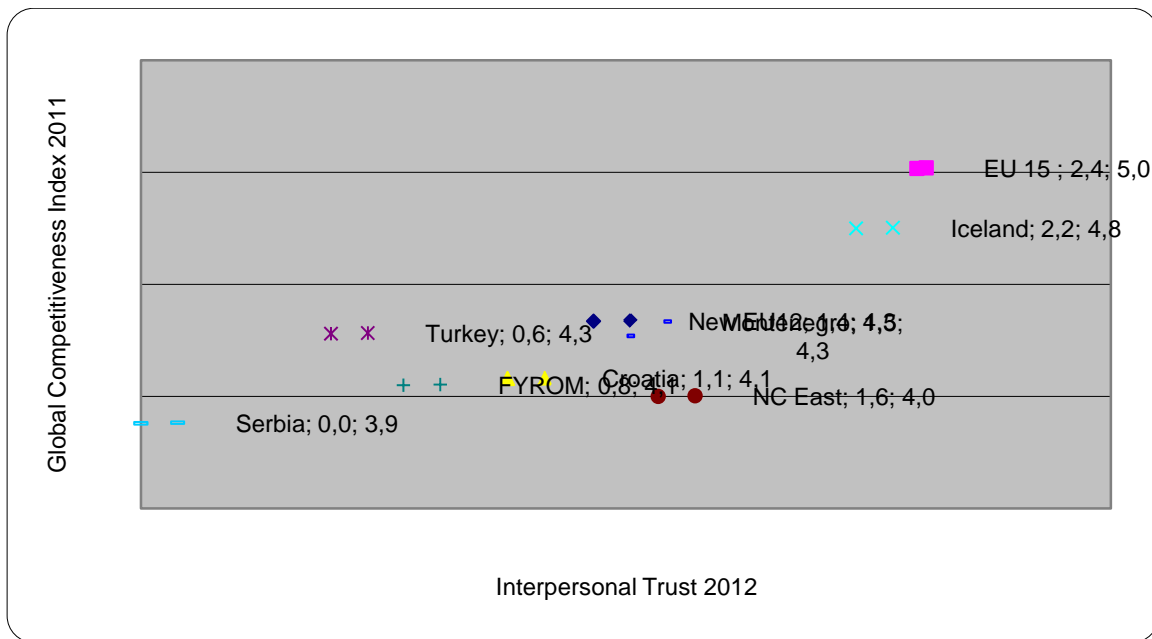
Also among the candidate countries, stronger elite compliance with legal and ethical norms (Control of Corruption) corresponds with higher scores in democracy index. Serbia and Croatia have comparatively lower levels of elite compliance although their scores in democracy index are higher than Turkey and FYROM.

**Figure 23:** Generalized interpersonal trust and Democracy Index in each one of the candidate countries and average scores of the EU-15, the 12 new EU-members and the Eastern NC's



Among the candidate countries, an analogy between the level of interpersonal trust and scoring in Democracy Index seems to exist.

**Figure 24:** Generalized interpersonal trust and Global Competitiveness Index in each one of the candidate countries and average scores of the EU-15, the 12 new EU-members and the Eastern NC's

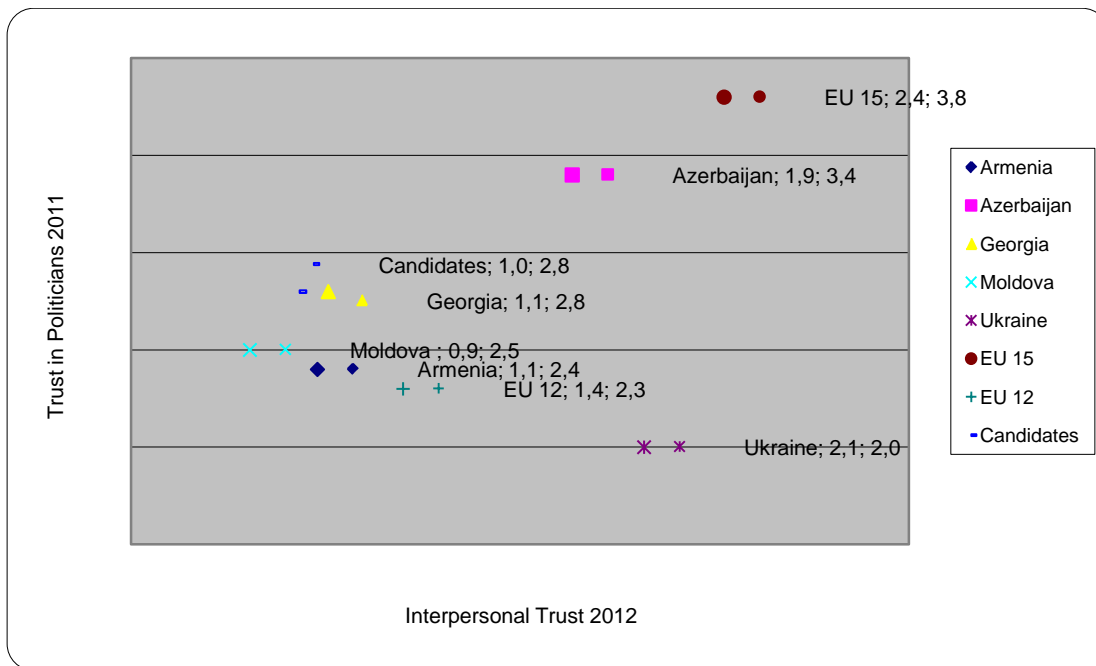


Among most of the candidate countries, a positive relation between the level of generalized interpersonal trust and scoring in Global Competitiveness Index seems to exist. Turkey is an exception, because level of interpersonal trust is the second lowest (after Serbia) while level of global competitiveness is the second best (after Iceland).

#### 4.4. Eastern Neighboring Countries

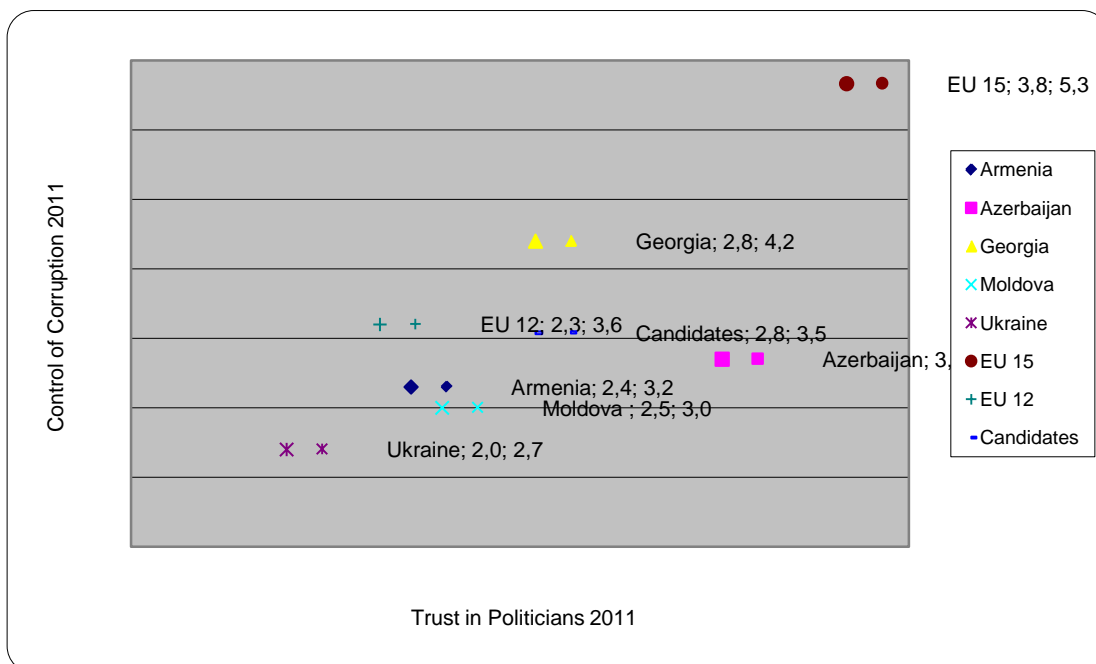
The last group is the one of the Eastern neighboring countries which are addressees of the ENP. By analogy to the previous groups, firstly the level of interpersonal (generalized) trust has been compared to the level of public trust to politicians in every single candidate country, while also the average in the groups of new EU-12 (enlargement countries) members, of the “old” EU-15 members and of the candidate countries are being included:

**Figure 25:** Interpersonal Trust and Public Trust in Politicians in each one of the Eastern neighboring countries and average scores of the EU-15, the twelve “new” EU-members and the candidate countries



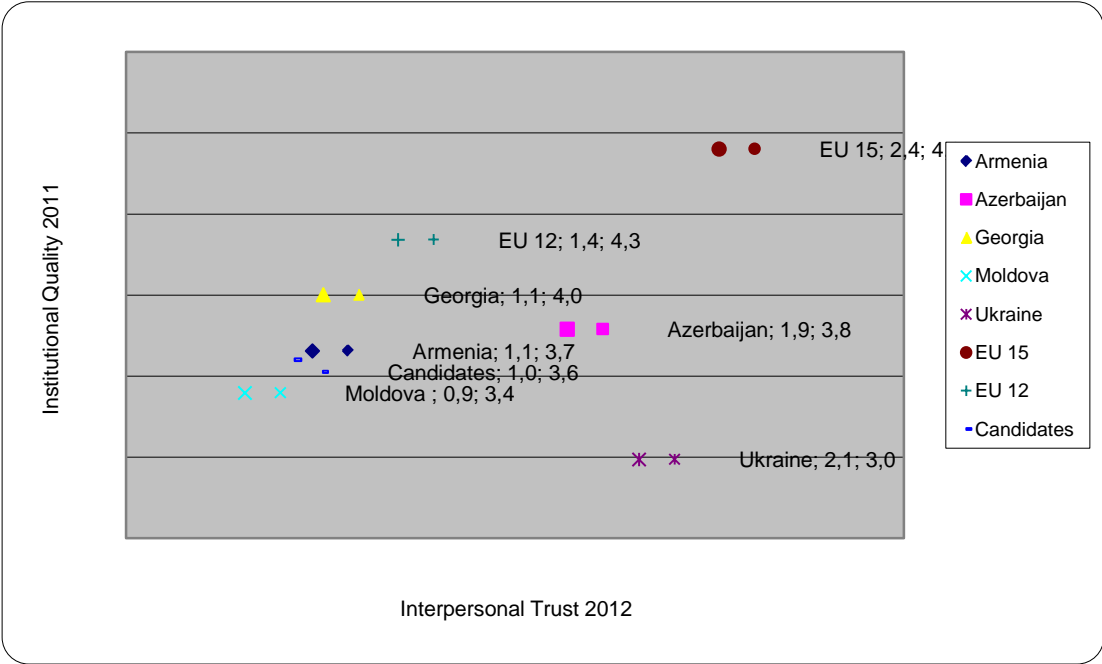
Also in most of the Eastern neighboring countries , *an analogy between the level of generalized interpersonal trust and the level of public trust in politicians does not seem to exist*. Azerbaijan is the country with highest scores in both sorts of trust, while Ukraine combines high scores in generalized trust (even higher than in Azerbaijan) with lowest score in public trust for politicians.

**Figure 26:** Control of Corruption (elite compliance with legal and social norms) and Public Trust in Politicians in each one of the Eastern neighboring countries and average scores of the EU-15, the twelve “new” EU-members and the candidate countries



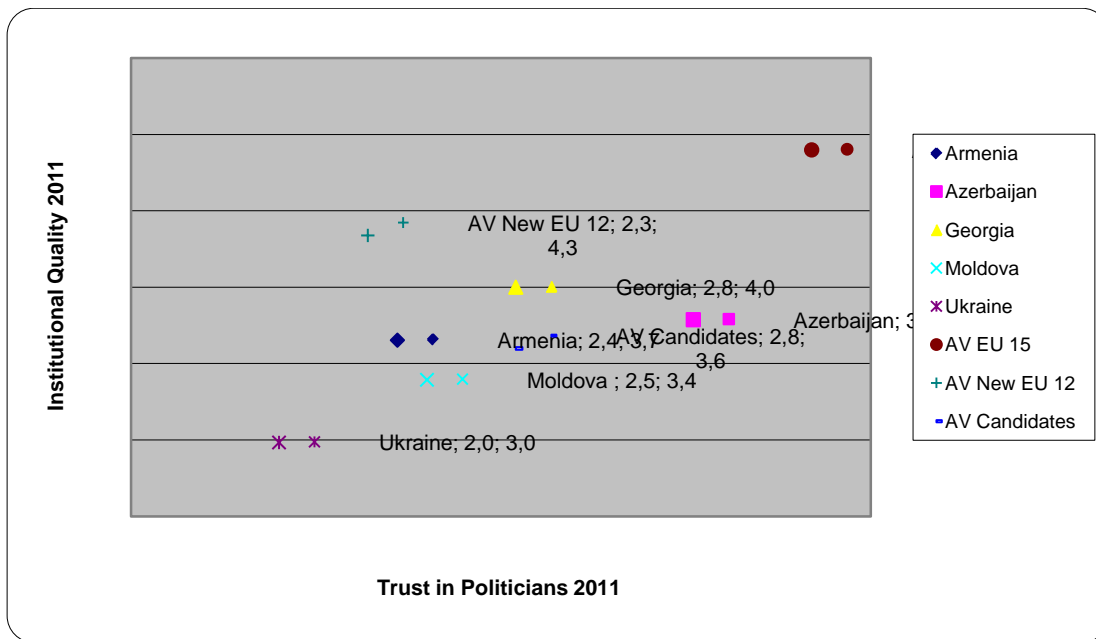
Also among Eastern neighboring countries an analogy seems to exist, between the level of public trust in politicians and scores in control of corruption (compliance of political and business elites with ethical and legal norms). Georgia seems to be a special case, since highest, by far, scoring in elite compliance with norms goes alongside with second best (but comparatively much lower than in Azerbaijan) trust in politicians.

**Figure 27:** Interpersonal Trust and Institutional Quality in each one of the Eastern neighboring countries and average scores of the EU-15, the twelve “new” EU-members and the candidate countries



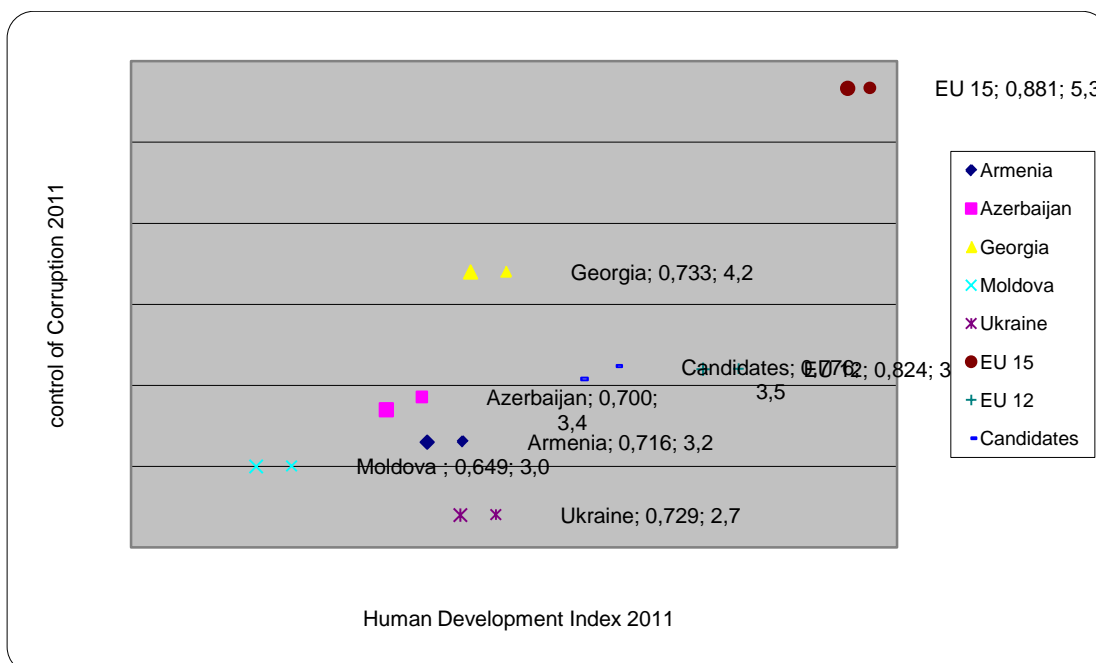
Among most of the Eastern neighboring countries an analogy exists between the level of interpersonal (generalized) trust and scores in institutional quality. Ukraine is an exception, since a high level of generalized trust is combined with extremely low scoring in institutional quality. Azerbaijan also much higher scores in generalized trust compared to the rest of these countries (only Ukraine scores higher), while the institutional quality is lower than in Georgia.

**Figure 28:** Public Trust in politicians and Institutional Quality in each one of the Eastern neighboring countries and average scores of the EU-15, the twelve “new” EU-members and the candidate countries



Also in this group of countries, public trust in politicians seems to clearly reflect scores in institutional quality. Georgia and Azerbaijan have the highest scores, Moldova and Ukraine the lowest.

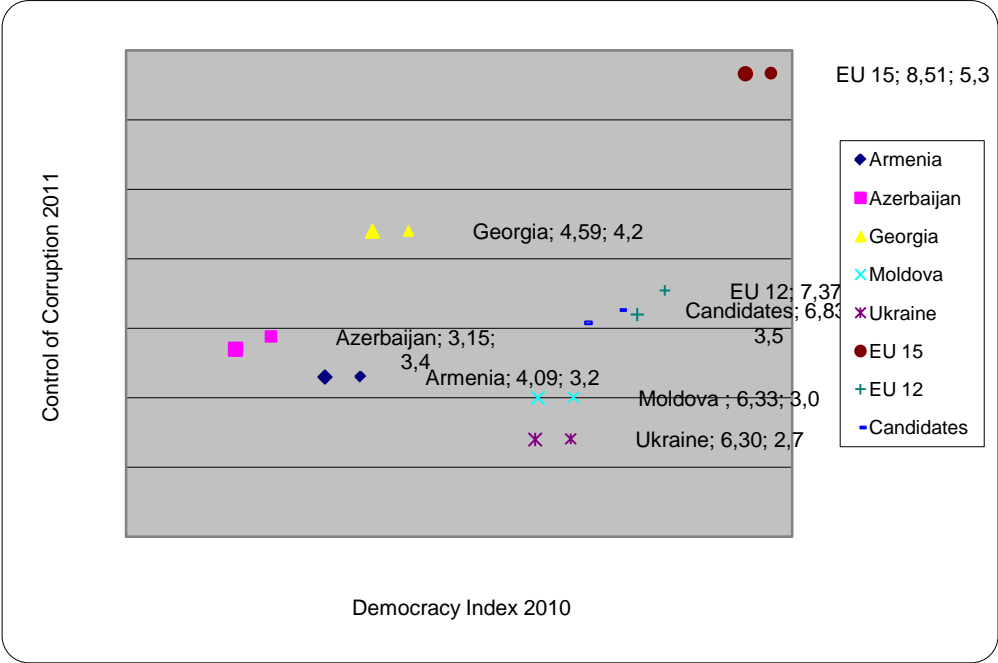
**Figure 29:** Elite compliance with legal and ethical norms (Control of Corruption) and Human Development Index in each one of the Eastern neighboring countries and average scores of the EU-15, the twelve “new” EU-members and the candidate countries



Concerning the level of elite compliance with legal and ethical norms in relation to human development index, it seems that only Georgia scores higher than the average of new EU members concerning elite compliance. All Eastern neighboring countries score much lower than EU members and candidate countries

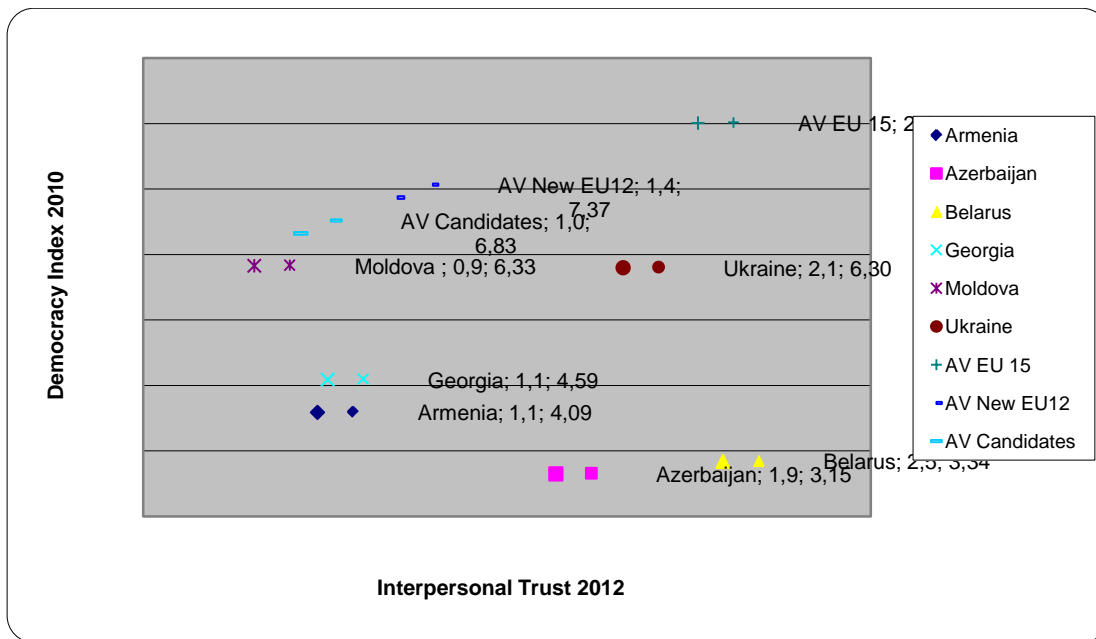
in terms of human development, while *Elite compliance with norms constitutes an important challenge for nearly all Eastern neighboring countries.*

**Figure 30:** Elite compliance with legal and ethical norms (Control of Corruption) and Democracy Index in each one of the Eastern neighboring countries and average scores of the EU-15, the twelve “new” EU-members and the candidate countries



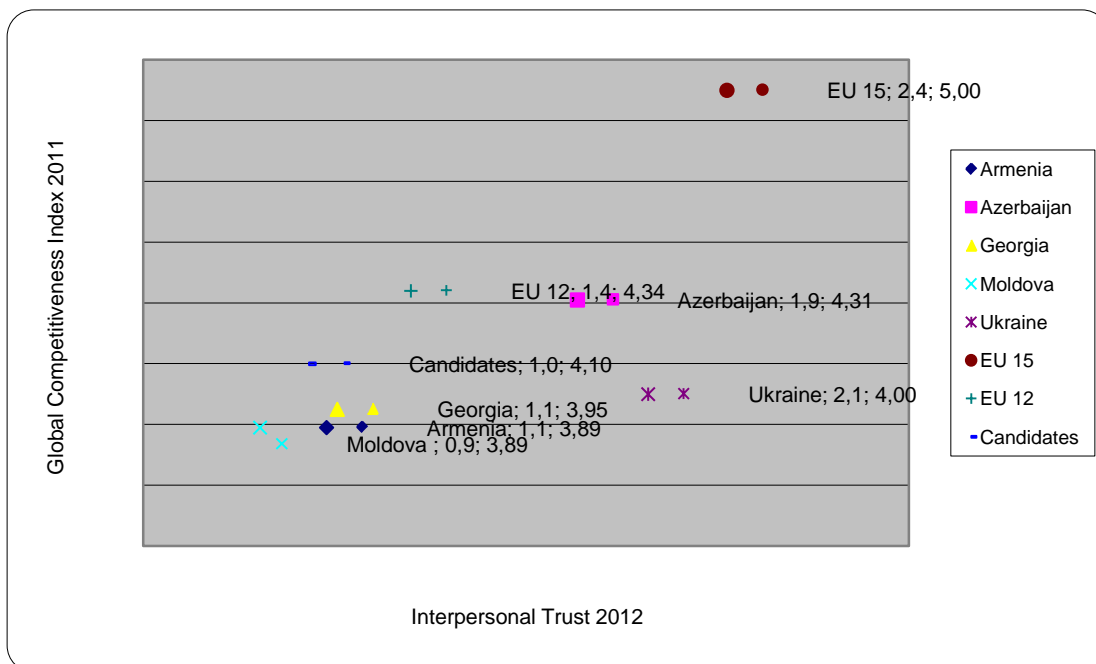
Among the Eastern neighboring countries, stronger elite compliance with legal and ethical norms (Control of Corruption) does not correspond with higher scores in democracy index. Moldova and Ukraine score higher in democracy index but obviously lower than other Eastern countries in elite compliance.

**Figure 31:** Generalized interpersonal trust and Democracy Index in each one of the Eastern neighboring countries and average scores of the EU-15, the twelve “new” EU-members and the candidate countries



Among the Eastern neighboring countries there is no analogy between the level of interpersonal trust and scoring in Democracy Index. Ukraine is an exception, because comparatively high score in generalized trust is combined to comparatively high score in democracy index.

**Figure 32:** Generalized interpersonal trust and Global Competitiveness Index in each one of the Eastern neighboring countries and average scores of the EU-15, the twelve “new” EU-members and the candidate countries



Among most of the Eastern countries, a positive relation between the level of generalized interpersonal trust and scoring in Global Competitiveness Index seems to exist. Ukraine is a slightly different case, because



highest level of interpersonal trust corresponds to the second highest (far away after Azerbaijan) level of global competitiveness.

## 5. CONCLUSIONS

Within the aforementioned four groups of countries there are obviously some distinctive sub-groups: Within the EU-15 group one can clearly distinguish the sub-group of Scandinavian countries joined (in most cases) by the Netherlands, a sub-group of Middle European and Anglo-Saxon countries and, finally a clearly distinctive group of Southern European countries. The latter score far lower in terms of social capital (in interpersonal trust, elite compliance with norms and trust to politicians), in terms of institutional quality and global competitiveness. In view of this distinctive scoring, economic crisis in Southern Europe seems to reflect deeper divergences within the group of the “old” EU members and especially concerning not only economic (competitiveness) but also institutional performance and social capital. Adequate policies should bridge this gap within the hard core of the European Union.

Differentiations exist also within the group of the twelve new EU member states, where Estonia, Cyprus and Malta obviously score much better in nearly all aspects, compared to the rest of the new members. On the other hand, Romania and Bulgaria seem to score far lower than the rest of the group in nearly all aspects and seem to need policies that should be especially developed for their, obviously particular case. For the whole group, strengthening social capital and building up strong institutions seem to be, once more the appropriate answer.

Candidate countries show different strengths and weaknesses (Iceland being the only one already reaching EU-15 standards). Turkey, for instance is scoring comparatively better in global competitiveness, while institutional quality and trust to politicians also reach a rather satisfactory level. However, general trust and scoring in democracy index are extremely low and appropriate policies seem to be needed in order to further encourage democratization, openness and cooperative predisposition in this country. European policies should adjust to the peculiarities of each candidate country and focus on country-specific deficiencies.

Finally, Eastern neighboring countries seem to have a long way in order to reach EU standards especially concerning elite compliance with norms, democracy index and global competitiveness. Countries obviously scoring higher than others in many fields should be further encouraged in order to accelerate reforms and development and thus probably also create imitation-effects in a wider region.

Concerning relation of different components of social capital to each other, it should be noted that level of generalized trust in most cases does not seem to correspond to levels of elite compliance to norms and public trust to politicians. It seems that generalized trust reflects level of cooperative predisposition in everyday life and towards anyone, while it is mostly culturally embedded. On the other hand, level of elite compliance to

norms and public trust to politicians seem to rather reflect historically embedded authority and acceptance of the state, of public institutions and of political power. Satisfaction with institutional performance could also enhance public trust to politicians. After all, evaluation of data has shown that there is obviously a positive relation in nearly all countries between public trust to politicians, on the one side, institutional quality and elite compliance to norms on the other.

Particular importance of generalized trust both for economic and institutional performance has been confirmed. In most of the countries and groups of countries that have been compared, an analogy between the level of generalized trust and scoring in democracy index, institutional quality index and also in global competitiveness index has been confirmed.

Finally, the index of democracy seems to reflect, in most of the cases, scoring in human development, while on the other side, elite compliance with legal and social norms seems to be encouraged, in most of the cases, through high scoring in democracy.

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# Social Capital And Attitudes Towards Money

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## Abstract

The aim of the present research was to assess the effect of social capital on an individual's economic behavior. Specifically, we examined three individual level components of social capital: trust, tolerance and civic identity. A total of 634 Russian adults (aged 20-59 years) completed measures assessing the three dimensions of social capital (perceived social capital, civic identity, generalized trust) and monetary attitudes (Russian version of the Money Beliefs and Behavior Scale, MBBS). A structural equation model relating trust, tolerance, and civic identity with economic attitudes was specified and tested while controlling for age, gender, and education. We found that higher levels of trust, tolerance, and civic identity were associated with adverse monetary attitudes. Attitudes towards money as a means of influence and of protection and the desire to accumulate it reflect a personal sense of dependency on money and lead to constant concern about money. Greater social capital, by providing social support that serves as an alternative source of security, influence, and protection, may reduce this dependence on money. An important finding of our research is that the component of social capital that was associated most frequently and strongly with monetary attitudes was civic identity. Generalizing from our findings, we postulate that the negative association between monetary attitudes and trust, tolerance, and civic identity suggests that when social capital decreases, people try to compensate by accumulating financial capital.

*Keywords:* social capital, trust, tolerance, monetary attitudes, civic identity, structural equation modeling.

JEL classification:

Z13

PsycINFO classification: 3020

## 1. Introduction

During the recent decades there has been a shift in the social sciences from the so-called ‘conflict paradigm’, i.e. from the analysis of intergroup differences and social conflicts towards the analysis of social integration. One aspect of this transition is the active development of the social capital theory. This is quite clear when looking at the number of references to social capital in the Web of science: In 1991, only two references to social capital were made and approximately 15 years later, in 2005 and 2006, this number increased drastically to 403 and 443 references respectively (Ostrom & Ahn, 2010, p. 18). In general, these studies have demonstrated that societies that have a special ‘relations resource’, which is expressed in mutual trust, solidarity, common standards, and equality are more successful in their economic development, and people in these societies have higher levels of subjective well-being and health. In the field of social psychology, there is a relatively small amount of works devoted to social capital, and they all aim to study its relationship with mental health and psychological well-being of the individuals (Almedom, 2005; Cook, 2005; Theurer, & Wister, 2010; Babalola, 2010; Wood, & Giles-Corti, 2008). The whole variety of research still evades the issue related to mechanisms of how social capital influences the economic development of societies. In fact, social capital can be conceptualised as the relations between people that can be converted into financial capital. How does this conversion take place and what changes in economic behaviour of people emerge with the advent of social capital? The scientific relevance of the research is to formulate and study the problem of social capital relationship with individual economic behaviour through which social capital leads to an increase in material well-being of the society as a whole. In both a theoretical and an empirical sense, it still remains unclear how social capital of the civic society affects economic parameters. The mechanisms of this relation and the spill over effects remain under-researched (Westlund & Adam, 2010, p. 900).

In this paper we first discuss the theoretical concept and the measurements available. Next, we formulate explicit propositions and their theoretical rationale. This is followed by a description of the sample and descriptive results. Results are presented in the form of path diagrams and structural equation models and their interpretations are provided. Finally, a summary of major findings and implications for future research are presented in the final discussion section.

The concept of social capital is very general and, partly due to this, has been used for the explanation of a wide variety of socio-economic phenomena (Grootaert & Van Bastelaer, 2002). . In her book on social capital Häuberer (2011) summarized the main findings and proposed a useful, broad definition of social capital as “resources embedded in social relationships that benefit purposive action” (p. 148).

Many researchers have drawn upon the concept of social capital to understand economic development. For example, studies have credited social capital with contributing directly to economic growth (Helliwell & Putnam, 1995; Knack, 2003), with creating conditions for economic growth (Torsvik, 2000; Woolcock, 1998), with increasing the share of investments in GDP (Coates & Heckelman, 2003; Knack & Keefer, 1997), and with reducing income inequality (Zak & Knack, 2001). However, the psychological mechanisms that underlie the effects of social capital on individuals' intentions and behaviour are not well understood. Furthermore, it is very important to differentiate the level of analysis. Often it is not differentiated clearly enough whether one wants to specify and test individual level hypotheses, aggregate level hypotheses on the level of whole societies, or multilevel models.

Social capital can have a direct impact on certain types of economic behaviour. The confidence level affects investment and financial behaviour. In particular, it has been demonstrated that in the Italian regions with a high level of social confidence people use checks more readily than cash, invest in stocks, have access to institutional credits, and are more reluctant to use informal loans. The financial behaviour of people who have moved from one region to another is largely determined by the confidence level in a community where they have moved from, and not where they have moved to (Healy et al., 2001). Confidence is associated with the fact that people are starting to use credits more actively [Knack & Keefer, 1997]. Furthermore, it is associated with saving behaviour, and has been shown to influence saving behaviour in teenagers [Ssewamala et al., 2010].

In a study of the predictive ability of the theory of social capital in relation to purchasing behaviour findings have revealed that this theory is useful to predict consumer behaviour [Miller, 2001]. In this case, it was demonstrated that by the fact that humans belong to one community (i.e. they have a common social identity), this gave rise to reciprocity relations. Thus, the study revealed that reciprocity is a mediator of belonging to community and consumer behaviour [Miller, 2001, p. 487].

Given the theoretical discussions and the existing empirical evidence, the assumption that social capital can be linked to real economic behaviour and economic and financial attitudes of an individual seems to be justified.

The next question which we will now address is the issue of adequate measurements of the components of social capital for our research on individual level propositions.

a) A central dimension in the conception and operationalisation of social capital by most researchers is the degree of trust that members of a society have in one another and in the social system (e.g., Fukuyama, 1999; Putnam, 2001). This dimension serves as a basic indicator of social capital in the majority of empirical studies (Svendson, 2010). However, one has to differentiate

between (1) particularized trust, which we invest into family, friends, neighbors and colleagues and (2) diffuse or social trust, which means the extent to which individuals within a society tend to make positive evaluations of the trustworthiness of their fellow citizens (Allum et al., p. 41). In the present research we estimate *generalized trust* (Putnam, 2001).

b) The next dimension of social capital is group identity. Group identity was considered earlier by other authors as one of several components of social capital (Nahapiet & Ghoshal, 1998). In our case, it will be social identity or, more exactly, *civic identity*. From our point of view, civic identity can be defined as a part of the personal self-concept, more exactly - the individual's knowledge that he/she belongs to certain society together with some emotional and value significance to him/her of the society membership.

c) The basis of social capital is the quality of attitude towards social relations to those objects with which an individual interacts. However, the attitude towards social objects is impossible without their perception and understanding of them. Social images are also associated with human behaviour and their social attitudes. Consequently, the study of social capital effects on economic behaviour and economic setting must necessarily involve the consideration of *perceived* social capital (Van Staveren & Knorringa, 2007). Particularly it may be a factor mediating the effect of social capital on economic behaviour.

*The added value* of the present research is:

- a) to consider one possible psychological mechanism through which the level of social capital of individuals affects their economic attitudes. The mechanism we examine is the mediating role of economic attitudes. This focus is in line with general theories of attitudes (Eagly & Chaiken, 1993) and the Reasoned Action Approach (Fishbein & Aizen, 2010) in social psychology;
- b) to specify and test a structural equation model that relates the components of individual social capital (perceived social cohesion, level of general trust, positivity and strength of civic identity) together with the demographic variables of education, gender, and age to attitudes towards money;
- c) to test whether social capital (perceived social cohesion, level of general trust, positivity and strength of civic identity) partially or fully mediates the effects of age, gender, and education on economic attitudes ( see Zhao et al., 2010);
- d) by using a Russian sample we can study the effects of a society in transition from a centrally planned economy to a market economy.



Let us now refer to the specification of the model and the hypotheses. The logic of causality from levels of trust, civic identity, and of perceived solidarity to monetary attitudes is straightforward. If individuals do not trust those around them and do not feel solidarity with them and expect mutual social support, they will strive to compensate for this lack of experienced social capital by insuring their security and welfare through other means. One alternative is to maximize financial capital. Financial capital can refer to money used by entrepreneurs and businesses to buy what they need to make their products or provide their services or to that sector of the economy based on its operation, i.e., retail, corporate, investment banking, etc.

If the social environment comprises a number of people *contributing with their social capital* (confident, tolerant to outgroup members, having high civic identity), it leads to a decrease in number of economic behaviour types that impede the development (tax evasion, bribery). An individual begins to behave in such a way that enhances social capital, because he or she a) follows the general rules, and b) produces ‘investment’ in the social environment in order to maintain social capital, which creates a favourable environment for his/her economic behaviour.

As regards *perceived social capital*, evaluation of the social environment as having a high level of social capital leads to a) increase in time perspective of the individual’s economic behaviour (which should lead to the connection of social capital with the investment and saving behaviour), and b) increased confidence in the stability of the society (which should be associated with readiness to start a business, use credits, etc.).

Therefore, when people behave in a way that increases social capital of the society, they (whether consciously or not) act to create themselves favourable conditions for realisation of economic behaviour and improve their own living standards. Accordingly, an individual’s attitudes based on which social capital (e.g., readiness to confide) is evaluated should be related to economic behaviour or economic attitudes.

We suppose that social capital affects economic behaviour when two conditions are met. *Firstly*, when the individuals contribute to social capital themselves (although this does not allow them to behave improperly within the environment and benefit at the expense of others). *Secondly*, when an individual evaluates social capital of the environment as high (this allows him to (a) enhance his/her economic activity, and (b) prefer a higher degree of economic risk).

Hence, we expect that level of trust, level of civic identity, and perceived social solidarity (perceived social capital) promote attitudes favouring the maximising of financial capital.

We also reason that higher levels of civic identity increase attitudes favouring the maximising of financial capital. The reverse causal direction seems less plausible. The degree of civic identity affects various parts of individual life, for example, the attitude to the representatives of foreign

culture, representatives of own culture, including monetary attitudes. In particular, negative and weak civic identity, as a result of uncertainty of an individual in its own country, may be connected with money accumulation. The objective of such accumulation is the acquisition of confidence and usage of money as means of influence on the surrounding social context, which has insufficiently operating laws, corruption, etc. Thus, the consequence of monetary attitudes is not a condition of civic identity, but monetary attitudes may change depending on the degree of civic identity.

Therefore, Hypothesis 1 can be stated as follows:

H 1 The higher the social capital (perceived social capital, level of general trust, positivity and strength of civic identity), the more positive are the monetary attitudes (Retention, Inadequacy, Security, and Power).

The literature on the determinants of social capital and the empirical evidence shows that higher education also has a positive effect on social capital (perceived social capital, level of general trust, positivity and strength of civic identity) (Svendsen, 2010). Hypothesis 2 can be formulated as follows:

H 2 The higher the education of an individual, the higher the social capital (perceived social capital, level of general trust, positivity and strength of civic identity) of the individual.

Because men, on average, still hold higher occupational positions in society and are better integrated into professionally relevant networks (Lin, 2001), we also hypothesise that gender affects individuals' levels of perceived social capital, level of general trust, and civic identity. Specifically, we can formulate the third proposition as follows:

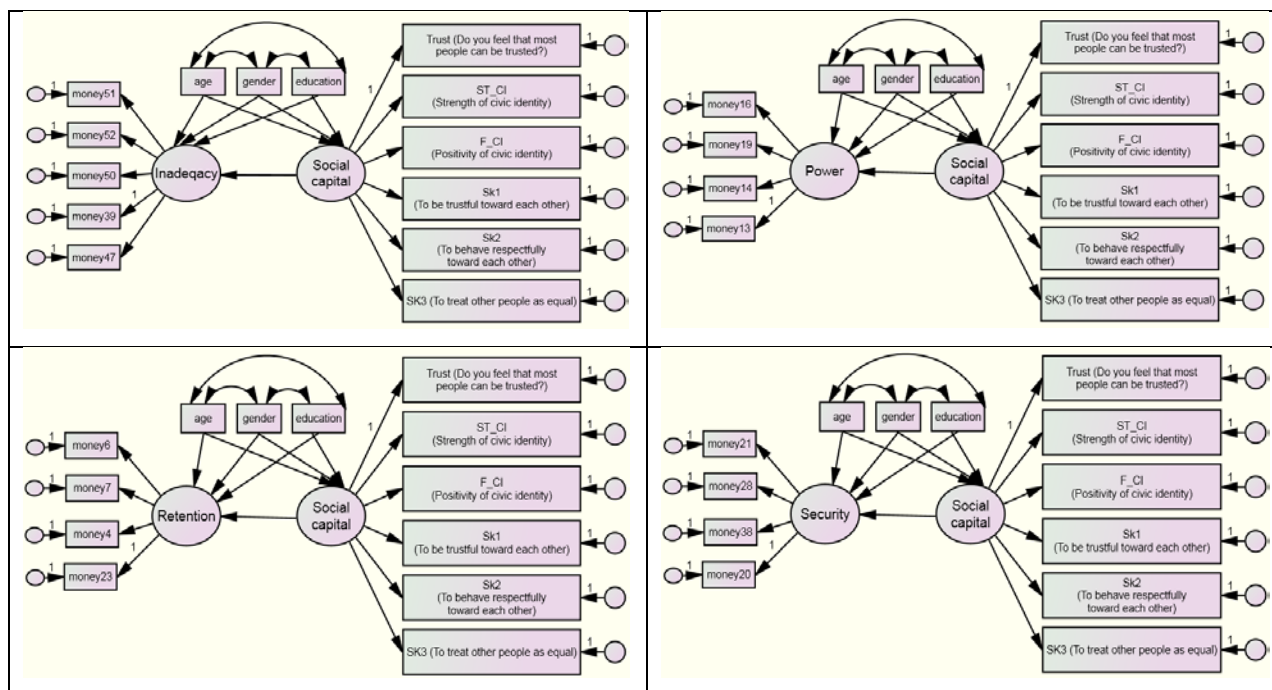
H 3: Men have a higher social capital than women.

The case of age is more complicated. With increasing age people attain higher occupational positions and become more integrated in social networks. However, following retirement and sometimes even earlier, integration diminishes slowly or more rapidly depending on final occupational status. This last aspect is less relevant for our empirical analysis, as all respondents are under 60. In any case, we can postulate the following relationship (Lin, 2001).

H4: The higher the age, the higher the social capital.

Although we argue that the effects of the socio-demographic characteristics on attitudes towards money are mediated through subjective social capital, we have no theoretical grounds for positing whether the mediation is complete or only partial. Therefore, we set up competing models to decide between full and partial mediation in the models described below. In Figure 1, a path diagram is presented to reflect the underlying propositions for the partially mediated model.

**Figure 1. Path diagrams of the four models tested**



## 2. MATERIAL AND METHODS

### 2.1. Participants in the study

Between May 2010 and March 2011, a convenience sample of Russian adults responded to the questionnaire. The sample included 634 respondents (304 men and 330 women), aged 20 to 59 years, with a mean age of 38,4 years and a median age of 41. We have used a simple random sample.

Respondents were recruited in seven different regions of Russia: Moscow Region- 16.5% of the sample, Irkutsk Region (16.4%), Kemerovo Region (38%), Transbaikal Province (14.6%), Republic of Bashkortostan (10.8%), Stavropol Province (3.3%), Chechen Republic (0.4% ) of the total sample. The sample was relatively highly educated, with 2.4% having completed general secondary education, 21.1% specialized secondary education, 21.5% incomplete higher education (not finished), 55% higher education and exhibited substantial heterogeneity of occupations.

### 2.2. Instruments and indicators

#### 2.2.1 Social capital (see Appendix A for the full instrument).

Completed measures assessing the three dimensions of social capital(perceived social capital, civic identity,generalized trust) and monetary attitudes were assessed with the Russian version of the Money Beliefs and Behavior Scale(MBBS). The three sub-dimensions of social capital were measured via three first order factors (latent variables), which themselves were measured by

multiple indicators in the case of perceived social capital and civic identity and by one item in the case of generalized trust.

1. *Perceived social capital*: Respondents rated how typical five different behaviours that express cohesion and reciprocity are among the people in their environment (e.g., behaving respectfully to one another). Items were rated on 5-point Likert-type scales ranging from 1 (*very usual*) to 5 (*very untypical*) (see block of questions in Appendix A).

2. *Civic identity* (self-developed instrument). We assessed two aspects of civic identity, strength and valence, each on a 5-point Likert-type scale.

a) Respondents indicated the *strength* of their civic identity in response to the question: «Do you feel that you identify closely with your country (Russia)»? (question 2 in Appendix A). Response options ranged from 1 (*No, I have no such feeling at all*) to 5 (*I always fully feel that way*).

b) They indicated the valence of their civic identity in response to the question: Which [one] of the following describes your feelings about your [Russian] nationality (pride, confidence, none, offence, shame)? (question 3 in Appendix A). According to the instruction, respondents were requested to choose one of them.

3. *Generalized trust*. We assessed individuals' general level of trust with the following question from the World Values Survey: Generally speaking, do you feel that most people can be trusted, or that you can't be too careful in dealing with people? (Responses ranged from 1 (*you can't be too careful*) to 5 (*most people can be trusted*) (question 4 in Appendix A).

#### 2.2.2 Monetary attitudes.

We administered the Russian version of the Money Beliefs and Behavior Scale. This scale consists of four sub-scales that are labeled Inadequacy, Power, Retention, and Security. The content of each of the subscales and the characteristics of their formal validity in terms of standardised factor loadings can be seen in Table 1..

Appendix B contains also the matrix of correlations among all of the variables used in this study.

For the testing of our propositions we have used **structural equation modelling** (SEM). It is a powerful multivariate method allowing the evaluation of a series of simultaneous hypotheses about the impacts of latent and manifest variables on other latent and observed variables, taking measurement errors into account (see Bollen & Pearl, 2012). For the testing of full versus partial mediation, this procedure is especially useful. In the present analyses we used the SEM software AMOS version 19 (Arbuckle, 2010-, Byrne, 2010).

### 3. Results and Discussion

#### a. Test of measurement models and descriptive results

We applied a two-step strategy for testing our models. First we tested the measurement models and then we estimated the full structural equation models (Anderson & Gerbing, 1988). Initially, we used confirmatory factor analysis to evaluate the reliability and validity of the monetary attitude factor structure suggested by Furnham in our sample with the Russian version.

Table 1 shows the factor structure of each of the four monetary attitudes considered separately. We eliminated items until we obtained performance measures of quality that met the commonly recommended cut-off values for model fit (see Brown, 2005). These were:  $p > .05$ , CFI  $> .95$ , RMSEA  $< .05$ , and  $p\text{-level} > .50$ . The original scale consisted of 55 items. Based on selecting only those items that exhibited good validity in terms of factor loadings and that formed reliable scales, only 17 of these items were used. Each of the four monetary attitudes was measured by at least four items. Table 1 reports the fit measures and standardized factor loadings from the separate confirmatory factor analyses. In the present analysis, the factor loadings are satisfactory according to the usual criteria (see Brown, 2005).

**Table 1. Estimates and goodness of fit of the five Furnham scales**

Goodness of fit of the models	Questions	Standardized regression weights
«Inadequacy» Chi-square = 7.59; df = 5; p = 0.18; CFI = 0.99; RMSEA = 0.03	<b>m51</b> <sup>8</sup> I believe that I have very little control over my financial situation in terms of my power to change it.	0.49
	<b>m52</b> Compared to most other people that I know, I believe that I think about money much more than they do.	0.55
	<b>m50</b> Most of my friends have more money than I do.	0.42
	<b>m39</b> I believe that time not spent in making money is time wasted.	0.47
	<b>m47</b> I often argue with my partner (spouse, lover, etc.) about money.	0.53
«Power» Chi-square = 3.94;	<b>m16</b> I often use money as a weapon to control or intimidate those who frustrate me.	0.84

<sup>8</sup> "m" means "monetary attitude" in our codebook and number of 'm' is the question number in our questionnaire.

df = 2; p = 0.14; CFI=0.99; RMSEA=0.04	<b>m19</b> I sometimes feel superior to those who have less money than myself regardless of their ability and achievements.	0.57
	<b>m14</b> I sometimes “buy” friendship by being very generous with those I want to like me.	0.59
	<b>m13</b> If I have money left over at the end of the month (week) I often feel uncomfortable until it is all spent.	0.48
«Retention» Chi-square = 1.0; df = 2; p = 0.61; CFI = 1.0; RMSEA = 0.000	<b>m6</b> I often have difficulty in making decisions about money regardless of the amount.	0.64
	<b>m7</b> I am financially worse off than most of my friends think.	0.61
	<b>m4</b> I often say “I can’t afford it” whether I can or not.	0.53
	<b>m23</b> In making any purchase, for any purpose, my first consideration is cost.	0.40
«Security» Chi-square = 0.68; df = 2; p = 0.71; CFI = 1.0; RMSEA = 0.000	<b>m21</b> I firmly believe that money can solve all of my problems.	0.55
	<b>m28</b> The amount of money that I have saved is never quite enough.	0.50
	<b>m38</b> I worry about my finances much of the time.	0.54
	<b>m20</b> I believe that my present income is far less than I deserve, given the job I do.	0.52

Table 2 and 3 are presents descriptive statistics for all of the variables used in further modeling with SEM.

**Table 2. Mean values and standard deviations for social capital indicators (5-point scales)**

Items	M	SD
Generalized trust	2.66	1.05
Strength of civic identity	3.19	1.11
Valence of civic identity	3.21	1.15
Being trustful towards one another	3.43	0.66
Behaving respectfully towards one another	3.71	0.83
Treating other people as equals	3.47	0.86

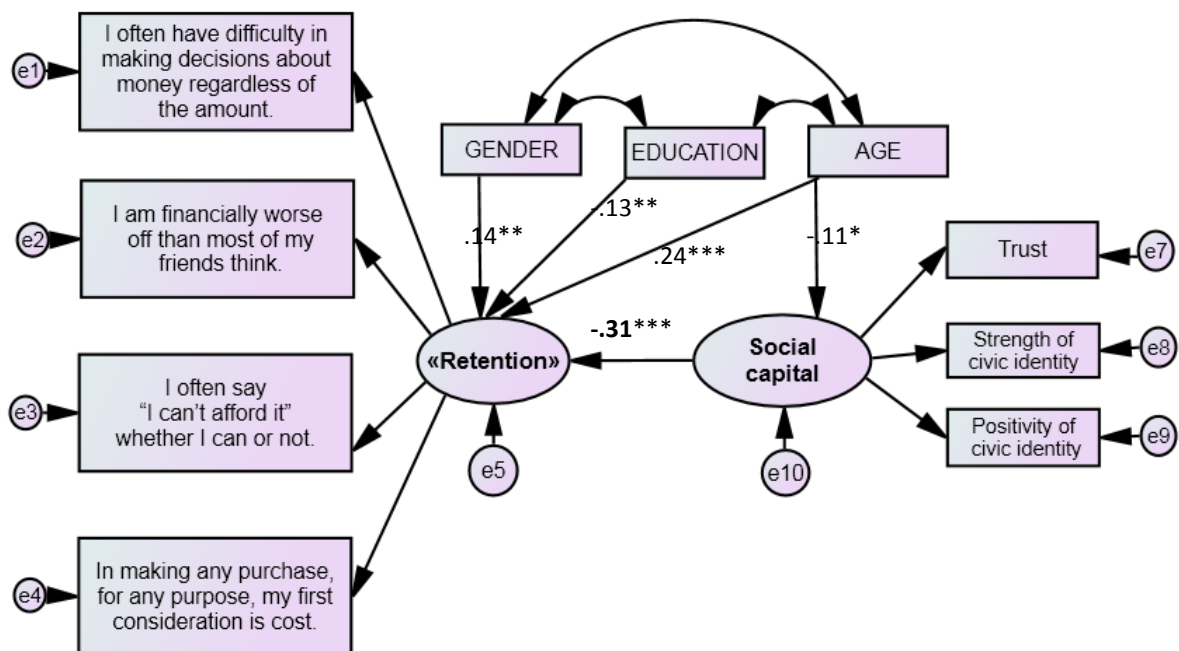
**Table 3. Mean values and standard deviations for Furnham monetary attitudes scales (composite scores, 5-point scales)**

Scales	M	SD
«Inadequacy»	2.14	0.77
«Power»	1.52	0.72
«Retention»	2.74	0.91
«Security»	3.01	0.92

**b. Structural equation models**

Figures 2 to 5 present the results of the structural equation models for the influence of gender, education, age, and social capital on each of the four monetary attitudes. We performed all the analyses with AMOS 19 using Maximum Likelihood Estimation (Arbuckle, 2010). We present the standardized coefficients in the figures. The variables that were not significant in each structural model have been excluded. Thus, the models discussed in this section contain a reduced quantity of variables in comparison to what we specified in the theoretical part. As a result, we have started with a tentative model but modified it according to the fit measures. In the sense of Jöreskog (1993), this is a model generating strategy and not model testing in the strict sense.

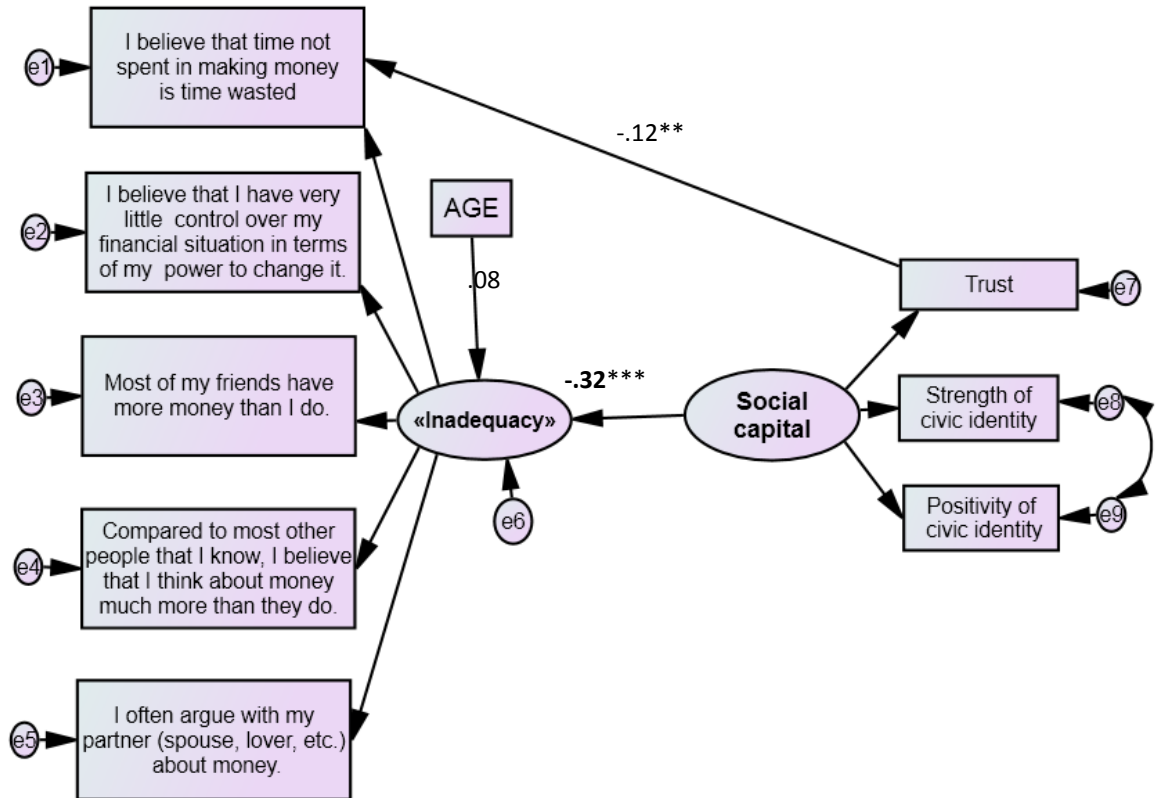
**Figure 2. Model determinants of «Retention»**



Chi-square = 43.7; df = 30; p = 0.051; CFI = 0.98; RMSEA = 0.027

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001;

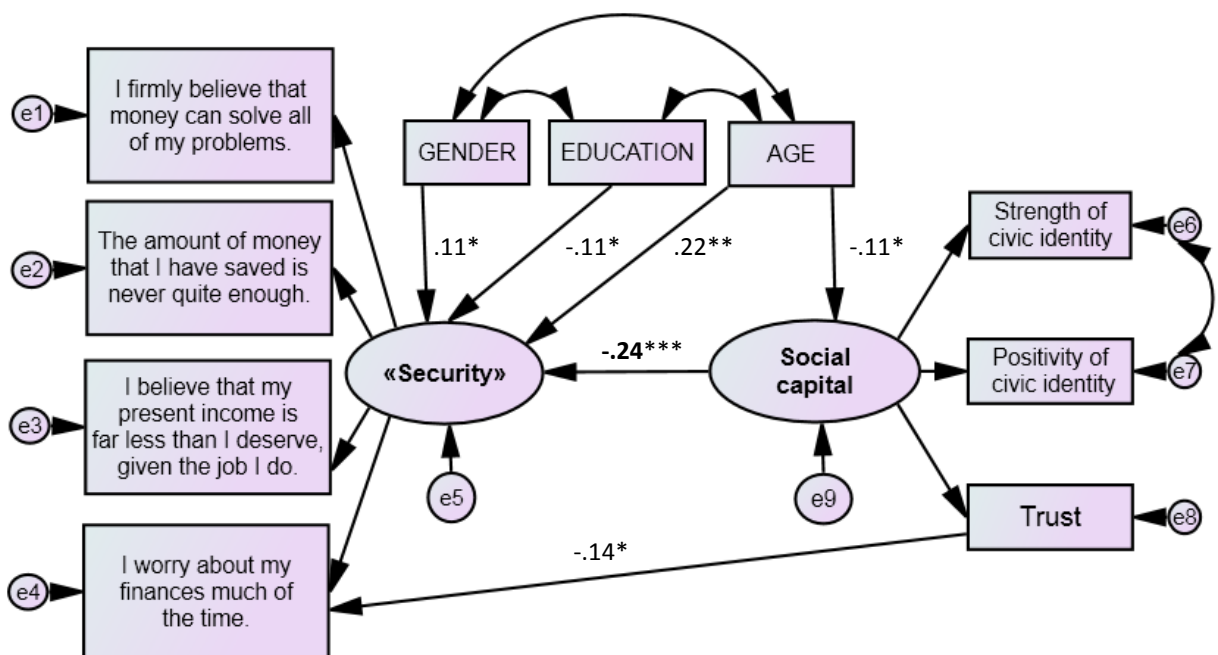
**Figure 3 Model of determinants of «Inadequacy»**



Chi-square = 29.7; df = 20; p = 0.075; CFI = 0.98; RMSEA = 0.028

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001;

**Figure 4. Model determinants of «Security»**

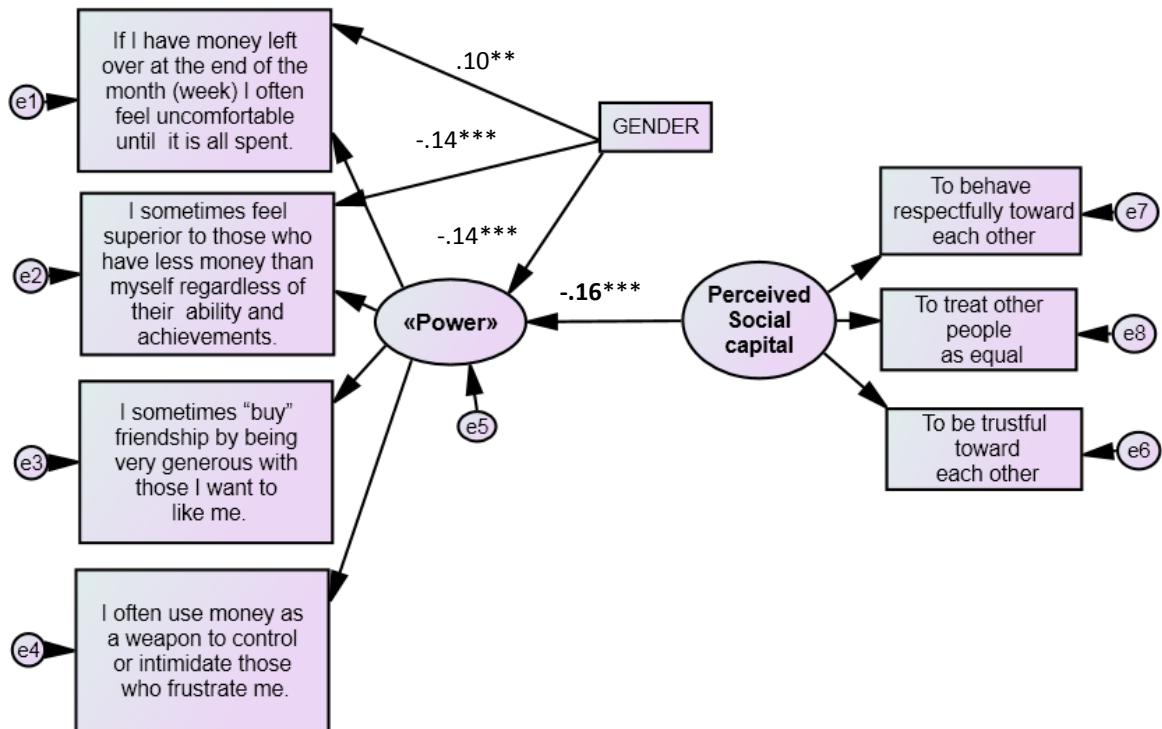


Chi-square = 35.1; df = 29; p = 0.21; CFI = 0.98; RMSEA = 0.018

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001;



**Figure 5. Model determinants of «Power»**



Chi-square = 22.7; df = 16; p = 0.12; CFI = 0.99; RMSEA = 0.026

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001;

Figure 2 depicts the standardized coefficients for the model to explain one of the monetary attitudes that is Retention. Firstly, one can see that the indicators of retention and the indicators of social capital all have sufficient factor loadings over .40 with one exception. This exception is trust which has a very low loading of .18, which suggests that this indicator for social capital has a low formal validity and seems to measure a different facet of social capital compared with civic identity and perceived social capital. However, we chose to leave the model like this, as this measurement (trust) has been generally proposed for measuring social capital (see Fukuyama, 1999; Putnam, 2001; Knack, 2003; Cook, 2005; Häuberer, 2011). The strongest predictor of Retention is social capital (-.31), which has the expected negative sign. In other words, the more social capital people have, the lower is their Retention. Of all the demographic variables, age has the strongest direct effect on Retention with .24, which means that the older people become, the higher the retention becomes. As expected, education reduces Retention (-.13) albeit slightly and men have a higher Retention than women. Finally, one can see that the positive, indirect effect of age via social capital adds up to the direct effect, as both have positive signs.

Figure 3 reveals that the measurement model for Inadequacy has nearly the same standardised factor loadings as the model for Retention in Figure 2. An exception, however, is the much higher loading of trust on social capital in the model for Inadequacy. In addition, trust has a significant

negative direct effect on the fifth indicator of Inadequacy and a significant but small positive direct effect on the second indicator of Inadequacy, which are not mediated by social capital. Let us now refer to the structural relationships. Age has a smaller positive effect on the dependent construct, as there is also a direct positive effect of age on the first and second indicator of Inadequacy. This partial mediation via the construct Inadequacy means that the two first items seem to contain specific components not contained in the general construct (Howard & Wainer, 1993; Muthen et al., 1991).

Figure 4 contains the results for the explanation of the Security attitude. The coefficients of the measurement model are again very similar to the two former models and demonstrate the sufficient validity of the items. The effect of social capital on the security attitude is again negative and the coefficients are very similar to those depicted in Figures 2 and 3. The quantitative effects and the signs of the three demographic variables on social capital and Security are nearly identical to those in Figure 2 for the model to explain Retention. That is, the older the respondents are the less social capital they have. Moreover, persons with a higher level of education are less security oriented, whereas women and older people are more security oriented. As in Figure 3, trust also has a direct negative effect on one of the indicators of the attitude. In the last model presented in Figure 5, the standardised coefficients for the factor loadings are again satisfactory, ranging from .49 to .84. However, the effects of the demographic variables change a lot. In this model, gender is the only demographic variable that has a significant effect on power and, additionally, on two of its indicators. The effect of social capital on power is negative and nearly as weak as the effect of gender.

Confirming our basic hypothesis, we found that higher levels of social capital were negatively associated with negative monetary attitudes (Inadequacy, Retention, Power, and Security). It was an unexpected result that the majority of relations with monetary attitudes were through civil identity. Nonetheless, it has a good predictive value in half of its models together with the interpersonal trust.

We should pay attention to a specific connection of civic identity with Security, which is separate from other characteristics of social capital. This data shows that individuals who have a weaker civil identity and who usually do not wait for support from the government may focus themselves on finding such security in money (see Figure 4). Nevertheless, social capital (trust and civil identity) has the most significant effect on the set of monetary attitudes, represented by the scale Inadequacy.

The negative relation of social capital with the monetary attitude Retention stands for the fact that social capital may decrease the desire to save money as a source of personal security. Such an effect at the macro-level will be manifested by the lack of desire to invest and instead striving to save money as a source of Security. This thought is supported by earlier findings that detected the

positive connection of trust with the rate of investments in the GDP (Knack & Keefer, 1997). The result confirms this thought by the presence of the negative relationship between social capital and striving to accumulate money.

We expected the relationship between social capital and perception of money as a resource for having influence on other people (the scale power/spending) to be negative. It is not surprising that this block of monetary attitudes is connected only with the acceptable social capital. That is, less expectation of support from one's surroundings may be related with more readiness to use money to manage social reality.

The empirical evidence of negative relations social capital and collectivism is exists (Allik & Reallo, 2004). Collectivism is one of the characteristic features for any hierarchic society. Social capital, which is based on trust and equality, probably promotes the formation of such types of relationships, where intentions to use money as a means of making hierarchy and manipulation of people and their usage, will decrease.

Confirming our main hypothesis, we found that higher levels of individual social capital were associated with adverse monetary attitudes. Attitudes towards money as a means of influence and of protection and the desire to accumulate it reflect a personal sense of dependency on money and lead to constant concern about money. Greater social capital, by providing social support that serves as an alternative source of security, influence, and protection, may reduce this dependence on money.

Finally, we found that the effects of age, education, and gender were quite different depending on the different facets of economic attitudes used. For Retention, partial mediation only worked for age, whereas education and gender had only direct effects on Retention. In the case of Inadequacy, only age had a direct effect. Moreover, age also had direct effects on two of the items to measure Inadequacy, revealing item bias for these two items, which we took into account by our re-specification of the model. Concerning security, one could see that the effect of age via social capital on security was partially mediated. Gender and age determined Security only directly and not via social capital. For the explanation of Power, only gender had a direct negative influence. However, this was nearly cancelled out by the positive effect of gender on one item of Power.

#### **4. Conclusions**

1. Confirming our basic hypothesis, we found that higher levels of social capital were associated with were negatively associated with negative monetary attitudes (Inadequacy, Power, Retention, Security).

2. Monetary attitudes as a means of influence and of protection and the desire to accumulate money make a person dependent on money and lead to constant concern about money.

3. The findings of the present research suggest that high social capital, which provides social support as an alternative source of security, influence, and protection, may reduce this dependence on money.

4. An important finding of the research is that the component of social capital that correlated most frequently and strongly with monetary attitudes was civic identity (sometimes together with trust). A crisis of civic identity or people's loss of civic identity may lead them to strive to accumulate money and to attribute more subjective value to it. Money may serve as an alternative source of certainty and security when one loses faith in and commitment to the surrounding society as a source of meaning and security.

5. Generalising from our findings, we postulate that the negative association between monetary attitudes and individual level social capital suggests that when social capital (whether societal or individual) decreases, people try to compensate by accumulating financial capital. This, in turn, leads to a shift in attitudes towards money with a greater emphasis being placed on money as a source of security. On the other hand, an increase in social capital leads to a shift in attitudes towards money that de-emphasises their importance for personal security. This interpretation of our findings may help to explain why societies with low social capital have more corruption and greater inequality. Corruption and inequality are social manifestations of the individual monetary attitudes studied here.

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## Appendices

## Appendix A. Measures of Social Capital

1. How typical is it for people in your environment to relate to one another in each of the following ways?

Behavior	Very Unusual	Somewhat Unusual	Hard to say	Somewhat Typical	Very Typical
Being trustful to one another	1	2	3	4	5
Behaving respectfully to one another	1	2	3	4	5
Treating one another as equals.	1	2	3	4	5
Willingly sharing material goods (money, clothing, household possessions, etc.) with those in need.	1	2	3	4	5
Willingly sharing thoughts, ideas, and feelings with people who need them.	1	2	3	4	5

2. Do you feel that you identify closely with your country (Russia)?

No, I have no such feeling at all	Yes, but only a very weak feeling	Sometimes I do, sometimes I don't	I almost always feel that way	I always fully feel that way
1	2	3	4	5

3. Which [one] of the following describes your feelings about your [Russian] nationality? Please, choose only one of them.

1) Pride      2) Confidence      3) No feelings      4) Offence      5) Shame

4. Generally speaking, do you feel that most people can be trusted, or that you can't be too careful in dealing with people?

You can't be too careful	Most people can be trusted
1 _____ 2 _____ 3 _____ 4 _____ 5	



**Appendix B. Correlation Matrix** (here that the items are described in Table 1)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1. sc1		0.63	0.50	0.13	0.20	0.21	-0.06	0.03	-0.13	-0.07	-0.14	-0.13	-0.03	-0.02	-0.06	-0.02	-0.09	-0.02	-0.12	-0.10	-0.09	-0.05	-0.04
2. sc2	0.63		0.49	0.05	0.17	0.10	-0.04	0.02	-0.08	-0.12	-0.13	-0.08	-0.08	-0.01	-0.04	0.01	-0.02	0.06	-0.07	-0.04	-0.04	0.01	-0.05
3. sc3	0.50	0.49		0.12	0.16	0.23	-0.01	0.00	-0.07	-0.04	-0.04	-0.09	-0.01	-0.03	-0.02	0.00	-0.11	-0.02	-0.13	-0.02	-0.04	0.06	-0.03
4. St.EI	0.13	0.05	0.12		0.42	0.15	-0.08	-0.14	-0.15	-0.03	0.00	-0.04	-0.02	-0.07	-0.08	-0.08	-0.09	-0.08	-0.06	-0.06	-0.11	-0.05	-0.09
5. Val.EI	0.20	0.17	0.16	0.42		0.10	-0.07	-0.12	-0.21	-0.04	0.02	-0.01	-0.09	-0.13	-0.16	-0.07	-0.05	-0.09	-0.07	-0.07	-0.06	-0.09	-0.07
yb6. trust	0.21	0.10	0.23	0.15	0.10		-0.03	-0.01	-0.01	0.10	0.02	0.01	0.05	0.01	0.03	-0.03	-0.08	-0.15	-0.16	-0.06	-0.06	0.05	-0.02
7. m4	-0.06	-0.04	-0.01	-0.08	-0.07	-0.03		0.34	0.31	0.02	0.03	-0.02	0.06	0.16	0.24	0.22	0.18	0.18	0.07	0.09	0.14	0.19	0.18
8. m6	0.03	0.02	0.00	-0.14	-0.12	-0.01	0.34		0.39	0.07	0.04	0.00	0.03	0.16	0.18	0.23	0.21	0.19	0.08	0.13	0.10	0.24	0.24
9.m7	-0.13	-0.08	-0.07	-0.15	-0.21	-0.01	0.31	0.39		0.15	0.12	0.07	0.03	0.23	0.27	0.25	0.25	0.27	0.17	0.21	0.27	0.29	0.27
10. m13	-0.07	-0.12	-0.04	-0.03	-0.04	0.10	0.02	0.07	0.15		0.32	0.39	0.28	-0.02	0.16	-0.02	0.06	0.00	0.20	0.17	0.10	0.17	0.21
11. m14	-0.14	-0.13	-0.04	0.00	0.02	0.02	0.03	0.04	0.12	0.32		0.50	0.31	-0.10	0.08	-0.07	-0.01	-0.02	0.16	0.12	0.05	0.07	0.25
12. m16	-0.13	-0.08	-0.09	-0.04	-0.01	0.01	-0.02	0.00	0.07	0.39	0.50		0.49	-0.08	0.14	-0.06	0.04	0.03	0.22	0.16	0.02	0.07	0.27
13. m19	-0.03	-0.08	-0.01	-0.02	-0.09	0.05	0.06	0.03	0.03	0.28	0.31	0.49		0.00	0.18	0.01	0.07	-0.04	0.15	0.13	0.01	0.00	0.23
14. m20	-0.02	-0.01	-0.03	-0.07	-0.13	0.01	0.16	0.16	0.23	-0.02	-0.10	-0.08	0.00		0.28	0.25	0.25	0.30	0.06	0.14	0.20	0.18	0.08
15. m21	-0.06	-0.04	-0.02	-0.08	-0.16	0.03	0.24	0.18	0.27	0.16	0.08	0.14	0.18	0.28		0.23	0.29	0.29	0.19	0.22	0.16	0.21	0.27
16. m23	-0.02	0.01	0.00	-0.08	-0.07	-0.03	0.22	0.23	0.25	-0.02	-0.07	-0.06	0.01	0.25	0.23		0.26	0.28	0.10	0.23	0.20	0.25	0.18
17. m28	-0.09	-0.02	-0.11	-0.09	-0.05	-0.08	0.18	0.21	0.25	0.06	-0.01	0.04	0.07	0.25	0.29	0.26		0.26	0.17	0.17	0.20	0.18	0.19
18. m38	-0.02	0.06	-0.02	-0.08	-0.09	-0.15	0.18	0.19	0.27	0.00	-0.02	0.03	-0.04	0.30	0.29	0.28	0.26		0.23	0.22	0.20	0.19	0.33
19. m39	-0.12	-0.07	-0.13	-0.06	-0.07	-0.16	0.07	0.08	0.17	0.20	0.16	0.22	0.15	0.06	0.19	0.10	0.17	0.23		0.24	0.19	0.18	0.29
20. m47	-0.10	-0.04	-0.02	-0.06	-0.07	-0.06	0.09	0.13	0.21	0.17	0.12	0.16	0.13	0.14	0.22	0.23	0.17	0.22	0.24		0.22	0.30	0.26
21. m50	-0.09	-0.04	-0.04	-0.11	-0.06	-0.06	0.14	0.10	0.27	0.10	0.05	0.02	0.01	0.20	0.16	0.20	0.20	0.20	0.19	0.22		0.20	0.24
22. m51	-0.05	0.01	0.06	-0.05	-0.09	0.05	0.19	0.24	0.29	0.17	0.07	0.07	0.00	0.18	0.21	0.25	0.18	0.19	0.18	0.30	0.20		0.26
23. m52	-0.04	-0.05	-0.03	-0.09	-0.07	-0.02	0.18	0.24	0.27	0.21	0.25	0.27	0.23	0.08	0.27	0.18	0.19	0.33	0.29	0.26	0.24	0.26	

**ARE INDIVIDUAL VALUE ORIENTATIONS RELATED TO SOCIO-  
PSYCHOLOGICAL CAPITAL?  
A COMPARATIVE ANALYSIS DATA FROM  
THREE ETHNIC GROUPS IN RUSSIA**

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**Abstract.** This study analyzes the phenomenology of socio-psychological capital viewed as a resource for psychological relations which constitutes the basis for the formation of social capital. A cross-cultural analysis of the impact of value orientations on socio-psychological capital has been performed. Based on a sample of 3 ethnic groups (Russians, n = 103; Chechens, n = 100; Ingush, n = 109), it has been demonstrated that although the impact of individual values on socio-psychological capital obeys logic, it may be culture-specific. Values of **Self-Transcendence** (Benevolence and Universalism) have a positive impact on the socio-psychological capital of a multicultural society, whereas values of **Self-Enhancement** influence it negatively. **Openness to Change** values positively influence civic identity but have a negative effect on perceived social capital. **Conservation** values positively affect the civic (Russian) identity of the representatives of the Ingush ethnic group.

**Keywords:** *social capital, socio-psychological capital, value orientations, trust, civic identity*

JEL classification:

Z13

PsycINFO classification: 3020

The analysis of social processes that take place in a multicultural society, in particular the processes of interaction of culture and economy, demonstrates that these cannot be explained by individual socio-psychological factors. It is, therefore, necessary to examine the comprehensive system of socio-psychological factors affecting the development of a multicultural society. The concept used in social sciences to describe systematically the phenomenon of social integration that promotes the development of societies is referred to as social capital. It has been demonstrated that societies characterized by high social capital are more progressive in terms of economic development; such societies have a more suitable climate for the development of small businesses, higher subjective levels of happiness and life satisfaction among the population [Helliwell, Putnam, 1995; Helliwell, Putnam, 2004; Svendsen, 2010]. To understand the mechanisms of the formation and functioning of social capital, it is necessary to examine its psychological aspect - the way it forms and functions. It is particularly relevant to study the socio-psychological phenomena that can contribute to the formation of social capital of a multicultural society, such as, for example, Russia.

### **1.1. The Phenomenology of Socio-Psychological Capital**

At the societal level, there are a number of socio-psychological phenomena that contribute to the development of society. It is, thus, necessary to introduce a concept that would unite these phenomena as well as highlight the fundamental ones. As such, the term "socio-psychological capital" is proposed. The meaning of the concept "capital", which is the basis of this phenomenon, can be translated from Latin as "main".

Social capital can be operationalized as a resource that is encompassed in social networks and is accessible to the actors included in them. Thus, this concept has two important components: (1) the *resources* involved in social relations and not the people and (2) the *access* to such resources that actors have (N. Lin in Häuberer, 2011).

The bearer and the subject of social capital is the group, but social capital, as a group resource, is formed from separate "investments" of group members. What do people "invest" into the group? In fact, their contribution is related to the other members of the group and the group as a whole, which can be defined as "socio-psychological capital". Socio-psychological capital of individuals at the group (including the societal) level leads to the emergence of community characteristics based on which it is categorized as having high social capital. In

this case, the social community as a whole system begins to possess social capital as a certain set of tools for achieving its goals: compliance without sanctions, self-organization (community cohesion), and political activity. However, at the heart of social capital are people’s attitudes: attitudes towards the immediate environment (trust, tolerance); attitudes towards the community as a whole (perceived social capital, social trust); attitudes towards one’s belonging to a community (identity). All these types of attitudes constitute the socio-psychological capital of a group. They are invested into a group by individuals, but belong to the group as a whole.

Attitudes are the key aspects of mental life along with mental processes, features and states. From the author’s standpoint, groups with particular resources of attitudes are characterized as having high social capital. Thus, *socio-psychological capital is the resource of psychological attitudes encompassed in social groups and accessible to individuals included in them.* This resource is reflected in the behavior (creation of networks, associations, and self-organization) which is viewed as social capital. However, behind such behavior there are always certain attitudes towards groups as holistic entities, towards individual members of these groups and towards one’s own membership in these groups (social identity).

**1.2. The Structure of the Socio-Psychological Capital of a Multicultural Society**

Since the concept of socio-psychological capital is new, to date there are no theoretical approaches for studying its structure. In this paper, we propose a theoretical approach to the structure of socio-psychological capital of a multicultural society. As socio-psychological capital constitutes the basis for the formation of social capital and is related to it, in offering a theoretical approach to the structure of socio-psychological capital, the author departs from the existing views on the structure of social capital.

Table 1. Indicators of social capital and their relation to indicators of socio-psychological capital

Indicators of social capital	Corresponding indicators of socio-psychological capital of a multicultural society
------------------------------	--

Involvement in community, social activities (e.g., signing petitions), membership in various organizations (Putnam & Feldstain, 2000; Onyx & Bullen, 2000; Goldfinger & Ferguson, 2009; Veenstra, 2002)	<i>Civic identity (positivity, strength)</i>
Participation in volunteer activities (Lillbacka, 2006; Goldfinger & Ferguson, 2009; Carpenter, Daniere, Takahashi, 2003).	
Compliance with basic norms of social relations in the community (Putnam, 2001; Nahapiet & Ghoshal, 1998).	<i>Acceptance of cultural diversity (ethnic tolerance)</i>
Positive attitudes towards cultural diversity are viewed as a component of social capital (Onyx & Bullen, 1997, 2000; Westlund, Calidoni-Lundberg, 2007; Safr, 2010).	
Trust (generalized, social, institutional) (Lillbacka, 2006; Carpenter & Daniere, Takahashi, 2003; Goldfinger & Ferguson, 2009; Nahapiet & Ghoshal, 1998).	<i>Trust: interpersonal trust; social trust and trust towards the members of other ethnic groups; institutional trust.</i>
Social networks, individual social capital (the number of people to whom one can ask for help) (Lillbacka, 2006)	
Cognitive social capital (Lehis, 2008): - general trust - the level of involvement in a community or communities (identity) - trust towards a community or communities - trust towards central government	

Table 1 highlights the most valid indicators of social capital frequently encountered in the literature. The second column presents the corresponding indicators of socio-psychological capital of a multicultural society, i.e., the socio-psychological phenomena responsible for the formation of corresponding elements of social capital.

### 1.3. Perceived social capital

Perceived social capital is the attitude towards society as a whole. Attitude towards society is a very broad construct and, when speaking about social capital, it is necessary to study people's perceptions and evaluations of the very attitudes in society that are regarded as social capital. This construct can be described as "perceived social capital". It is not a sequential element along with other components of socio-psychological capital, rather it

influences them; however, it is one of the elements of the psychological structure of society's social capital.

Empirical studies have shown that trust towards other people is mediated by perceptions of trust on the part of others, or, as authors call it, ascribed trust [Van Staveren, Knorringa, 2007; Häuberer, 2011]. These findings can be well explained by the social exchange theory [Schiff, 1992]. Before investing one's own attitudinal resource in a society, an individual estimates how much this resource is already present in the society. Generally, people would find it unreasonable to invest when the others are not investing. While economic capital is in bank accounts, and human capital is concentrated in the minds of people, social capital inheres in the social structure of relations. Social capital is a resource that an actor must constantly correlate with his/her social environment.

The perception of the level of social capital is important for one's own orientation towards success and economic activity. For example, Kilkenny, based on empirical research data from 800 small businesses in 30 towns in Iowa, found that perceived support of local community, combined with equality and support within companies had a positive and highly significant correlation with employee perceptions of success of their companies [Kilkenny et al., 1999].

#### **1.4. Individual Values and Socio-Psychological Capital**

According to some authors, the unity of values within a group or society is one of the indicators of social capital [Munene, Schwartz & Kibanja, 2005]. Bankston, arguing with Coleman, pointed out that social capital cannot simply be a reflection of the structure of relationships between individuals, on the contrary, it must include values, beliefs and expectations that are maintained and transferred within the group [Bankston, 2004 p. 177].

When considering the issue of social capital, the use of value categories allows to overcome the problem of the so-called "black" or "grey" social capital - when the unity of certain groups is not used for the benefit of society but against it. In this regard, Gupta pointed out that classical concept of social capital does not distinguish between the trust in society created for social 'good' versus social 'bad'. In fact, for example, the trust among members of mafia and other socially undesirable networks does not constitute social capital.

Ethical values *guide* social trust which subsequently develops into "ethically oriented" social capital [Gupta, 2003 p. 975].

It is noteworthy to mention the attempt of the government of Jamaica to improve the state of social capital in the region through a campaign aimed at values and attitudes of the population [Grey, 2008]. The campaign achieved its objectives and proved successful. The theoretical basis of it was the use of the cognitive element of social capital. Culture and values make a definite contribution to the formation of mutually beneficial collective behavior. Thus, "investment" in social capital is directed at creating or maintaining a common system of values based on mutual respect, partnership, trust, ethical behavior, as well as maintaining an environment conducive to the development of these values [Grey, 2008, p. 150].

Thus, individual value orientations in these studies are generally viewed at group level (i.e., in an aggregated form), and the degree of unity within a group is regarded as one of the sources of its social capital. Although this is a valid position, it is, however, necessary to clarify it. Values affect human behavior in different modes; there are values that induce competition or lead to confrontation between different groups. In particular, there are reports showing that the rapid rise of materialistic value orientations that occurred among American youth in the 1970s and 1980s severely eroded levels of social trust [Rahn, 1998, p. 545]. Therefore, it is important to identify the groups of values that promote unity, i.e., formation of social capital.

In this study, we employed the concept of values proposed by Schwarz as theoretical and methodological grounds for examining the impact of values on socio-psychological capital [Schwarz, 1992]. Schwartz identified a culturally universal value-motivational structure of an individual by highlighting 10 types of universal values (Universalism, Benevolence, Self-Direction, Conformity, Achievement, Security, Power, Hedonism, Tradition, and Stimulation) which he later combined into four value oppositions: **Openness to Change – Conservation** and **Self-Enhancement – Self-Transcendence**. It is easy to see that not all of the 10 values identified by Schwartz can contribute to positive attitudes and the formation of socio-psychological capital; for instance, values of Power, Tradition and Self-Direction are more likely to split than unite.

**The aim of the study** – to assess the impact of individual values on socio-psychological capital of the representatives of various ethnic groups.

**Object of the study** – determinants of socio-psychological capital.

**Subject of the study** – existence and characteristics of a causal relationship between individual value orientations and socio-psychological capital in different ethnic groups.

**The general hypothesis of the study** is that **Self-Transcendence** values (Universalism and Benevolence) positively correlate with socio-psychological capital; accordingly, **Self-Enhancement** values (Hedonism and Power) will have the opposite effect. **Conservation** values (Security and Conformity) negatively associate with socio-psychological capital, whereas **Openness to Change** values (Independence and Stimulation) either relate positively with socio-psychological capital or do not relate at all.

The hypothesis is quite general due to the fact that this study is of a rather exploratory nature as the author wants to understand, firstly, the significance of individual value orientations in formation of socio-psychological capital; secondly, to what extent the relations between individual values and socio-psychological capital are culturally universal.

The need to take culture into account stems from the fact that in different cultures universal individual values are distributed unequally [Magun, Rudnev, 2010]. This tendency becomes even stronger when the analysis is at the level of value oppositions, that is, when values that have logically common characteristics combine into groups. We can, therefore, assume that values learned in the process of socialization and cultural transmission affect an individual's attitude to society, i.e., the socio-psychological capital which lies at the base of social capital. In addition, culture itself affects social capital. There are studies showing that there is a relationship between cultural dimensions (in particular, individualism-collectivism) and social capital [Allik & Reallo, 2004].

## 2. Methodology

**Participants of the study.** The sample consisted of representatives of three ethnic groups living in the North Caucasus Federal District of Russia: Russians, Chechens and Ingush (see Table 2).

Table 2 . The characteristics of the study sample

Ethnic group	N	Sex	Age (median)
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		male	female	
Russians	103	49	54	31,5
Chechens	105	39	65	24
Ingush	109	54	55	23
Total	317	142	174	

The inclusion of representatives of these three ethnic groups in the sample was for the following reasons:

a) The Chechens and Ingush belong to the same cultural group called Vainakh and are similar in culture and, therefore, have similar values. Comparing the results obtained in these groups will allow to assess the degree of similarity of the impact of values on socio-psychological capital in ethnic groups that share common cultural roots.

b) Russians are markedly different from the Vainakhs in cultural characteristics. Comparing the results obtained in these ethnic groups will allow to identify the universal and culture-specific trends in the influence of values on socio-psychological capital.

c) The survey of these three ethnic groups living in the same region allows to eliminate the effect of inter-regional differences as a competing explanation of the analysis results, leaving as the only explanatory factor the interethnic and intercultural differences.

### **The variables and their indicators**

#### 1. Socio-psychological capital.

*1.1. Generalized trust level of an individual.* This indicator was evaluated through a question from the WVS (World Values Survey): Do you think that most people can be trusted? The respondents were asked to express their consent on a 5-point scale.

*1.2. Measures of civic identity.* The study evaluated three dimensions of civic identity:

a) the "strength" of civic identity (the respondents were asked to answer on a 5-point scale the question "*To what extent do you feel like a representative of the state?*").

b) the valence (degree of positivity) of civic identity. The respondents were asked a multiple choice question "*Which of the following describes your feelings about your [Russian] citizenship?*" The possible responses (pride, confidence, no feelings, resentment, and humiliation) were coded from 1 to 5.

c) the degree of subjective belonging to Russia was assessed using the following question from ISSP (International social survey program): "To what extent do you feel yourself belonging to Russia?". The respondents were offered to answer on a 4-point scale.

*1.3. Perceived social capital.* The respondents were asked to evaluate on a 5-point scale how typical behaviors that characterize cohesion and reciprocity are of the people around them (how typical is to trust each other, to behave respectfully towards each other and to treat others as equals).

## 2. Individual value orientations.

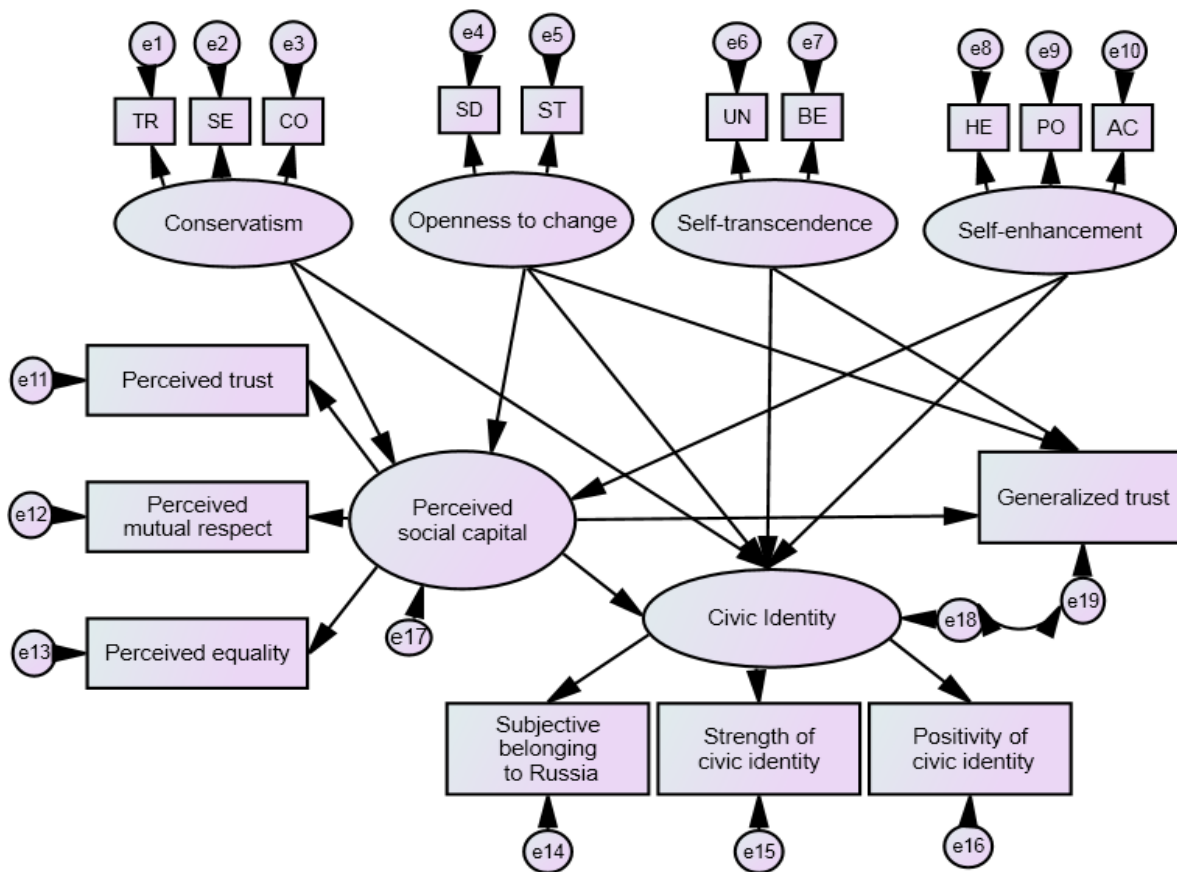
Schwartz Value Survey (SVS) contains 57 items in terms of value descriptions. The respondent is asked to rate how characteristic each value is of him/her using a scale from -1 to 7.

In accordance with the key, the average score is calculated for the 10 scales corresponding to the 10 types of motivation (or individual-level values) identified by Schwartz: Power, Conformity, Benevolence, Security, Tradition, Universalism, Self-Direction, Stimulation, Hedonism, Achievement [Schwartz, 1992].

## 3. Results of the Study

### 3.1 The tested model and the mean values of indicators

Fig. 1 presents the tested model of the influence of values on socio-psychological capital of a multicultural society. At first, simultaneous confirmatory factor analysis was carried out. The results of the simultaneous confirmatory factor analysis showed that the scales used in the study lacked measurement invariance for the three ethnic groups; therefore, further modeling analyses were conducted separately for each ethnic group.



**Fig. 1. The tested model of the influence of values on socio-psychological capital**

Table 3 presents the mean values of all indicators used in the study for the three ethnic groups. The statistical significance of differences between indicators has not been estimated since there is no condition for equivalence scales for all three samples.

**Table 3. Mean values and standard deviations of main indicators**

Indicators	Russians		Chechens		Ingush	
	M	SD	M	SD	M	SD
Security	4,9	0,8	4,7	0,7	5,0	0,8
Conformity	4,5	0,7	4,7	0,9	4,6	0,9
Tradition	3,1	0,9	3,7	0,9	4,0	0,9
Benevolence	4,5	0,9	4,6	0,8	4,7	0,8
Universalism	4,0	0,8	4,1	0,6	4,1	0,7

Self-Direction	4,1	0,7	3,9	0,8	3,9	0,8
Stimulation	3,4	1,2	3,2	1,1	2,9	1,3
Hedonism	2,9	1,4	2,8	1,4	2,2	1,7
Achievement	3,9	0,9	3,8	0,7	3,9	0,7
Power	2,9	1,1	2,8	1,2	2,7	1,3
Perceived trust	3,6	0,9	3,5	1,1	3,2	0,9
Perceived mutual respect	3,9	0,8	3,8	1,0	3,7	0,9
Perceived equality	3,7	0,8	3,6	1,1	3,5	1,0
Subjective belonging to Russia (a 4-point scale)	2,9	0,9	2,3	0,9	2,3	1,1
Strength of civic identity	4,8	1,8	4,3	2,0	4,3	1,9
Positivity of civic identity	4,7	1,7	4,3	1,7	4,1	1,7
Trust	3,3	1,5	3,6	1,9	3,2	1,7

For all indicators presented in this table there were 5-point scales except for the scale assessing subjective belonging to Russia.

### 3.2 Models for predicting the influence of individual values on socio-psychological capital

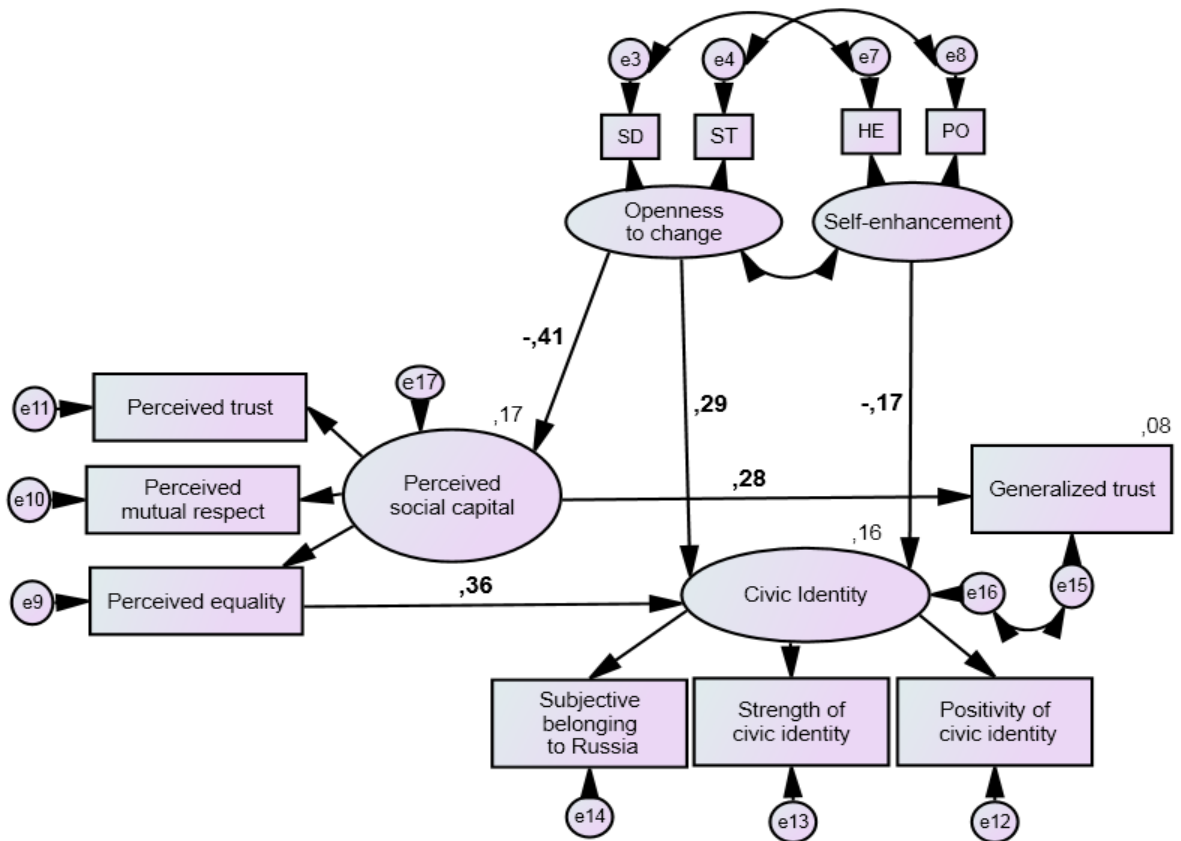
Through the structural equations we tested the hypothesis regarding the influence of individual values on indicators of socio-psychological capital in three ethnic groups living in one region of Russia. The modification indices suggested that the greatest model improvement would be achieved by making some changes, therefore the final models differ in their structure from the originally tested ones. Table 4 presents the goodness-of-fit of models; figures 2,3 and 4 present the graphical representation of all three models.

**Table 4. Fit statistics for structural models, the relationship between values and socio-psychological capital in three ethnic groups**

Group	$\chi^2$	df	CFI	RMSEA	PCLOSE	n
Russians	45.7	36	.98	.04	.54	103

Chechens	44,2	36	.97	.05	.51	100
Ingush	27,2	37	1.0	.00	.99	109

Fig. 2 shows the relationship between individual values and socio-psychological capital in the Russian group. This model has undergone several modifications since its original formulation. This and subsequent figures present standardized regression coefficients and the proportion of variance in the dependent variables which is explained by the additive combination of effects of the independent variables.

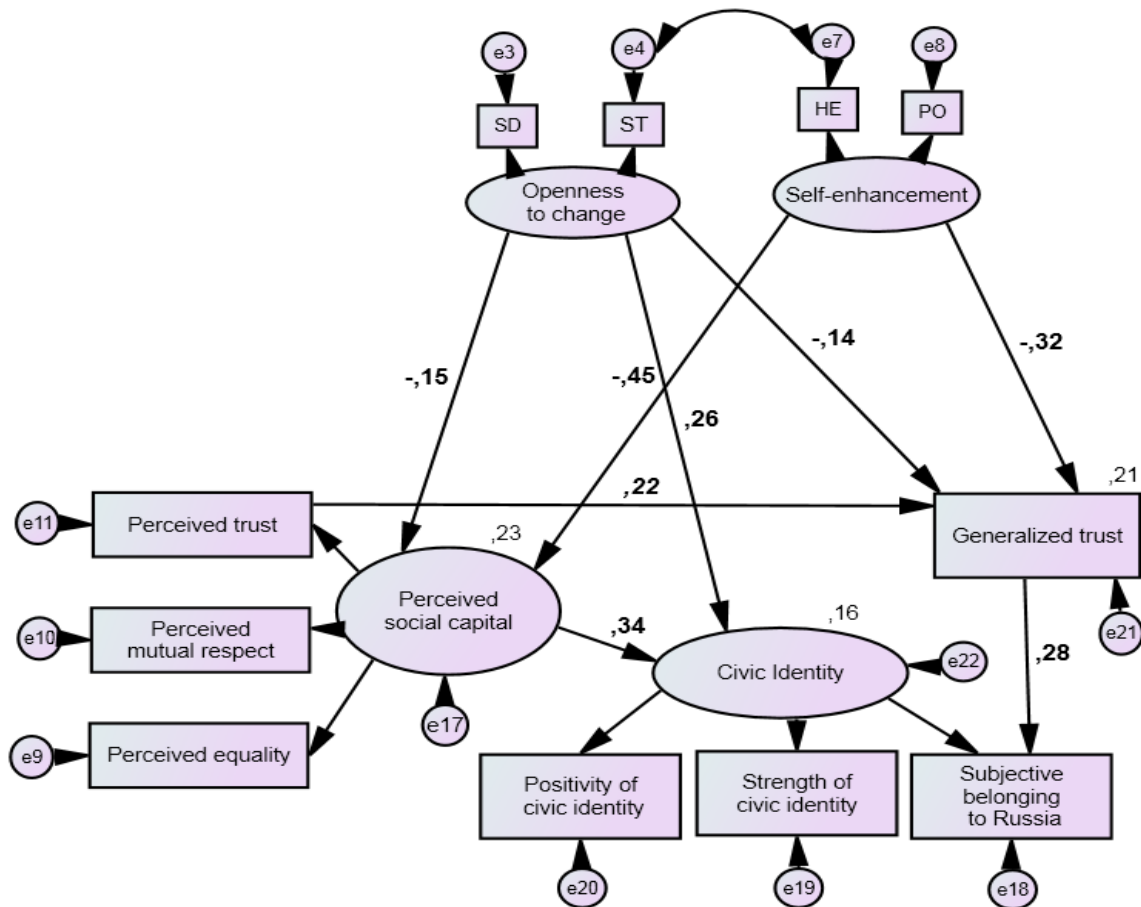


**Fig. 2. Model 1, predicting the influence of individual values on socio-psychological capital in the Russian group**

The structural model presented in fig. 2 shows that in the Russian group the best predictive power with respect to socio-psychological capital have **Openness to Change**

values (Self-Direction and Stimulation) and the values of **Self-Enhancement** (Hedonism and Power). It has to be noted that Achievement values had to be removed from the **Self-Enhancement** unit, as their presence in the unit worsened the fit of the model. Perceived social capital predicts trust and civic identity. However, whereas perceived social capital affects generalized trust as a composite latent variable, civic identity affects only one of its observable components - perceived equality.

Figure 3 shows the structural model of the influence of individual values on socio-psychological capital for the Chechen group. It can be noted that in the Chechens as well as in the Russians only the values of **Openness to Change** and **Self-Enhancement** predict socio-psychological capital.

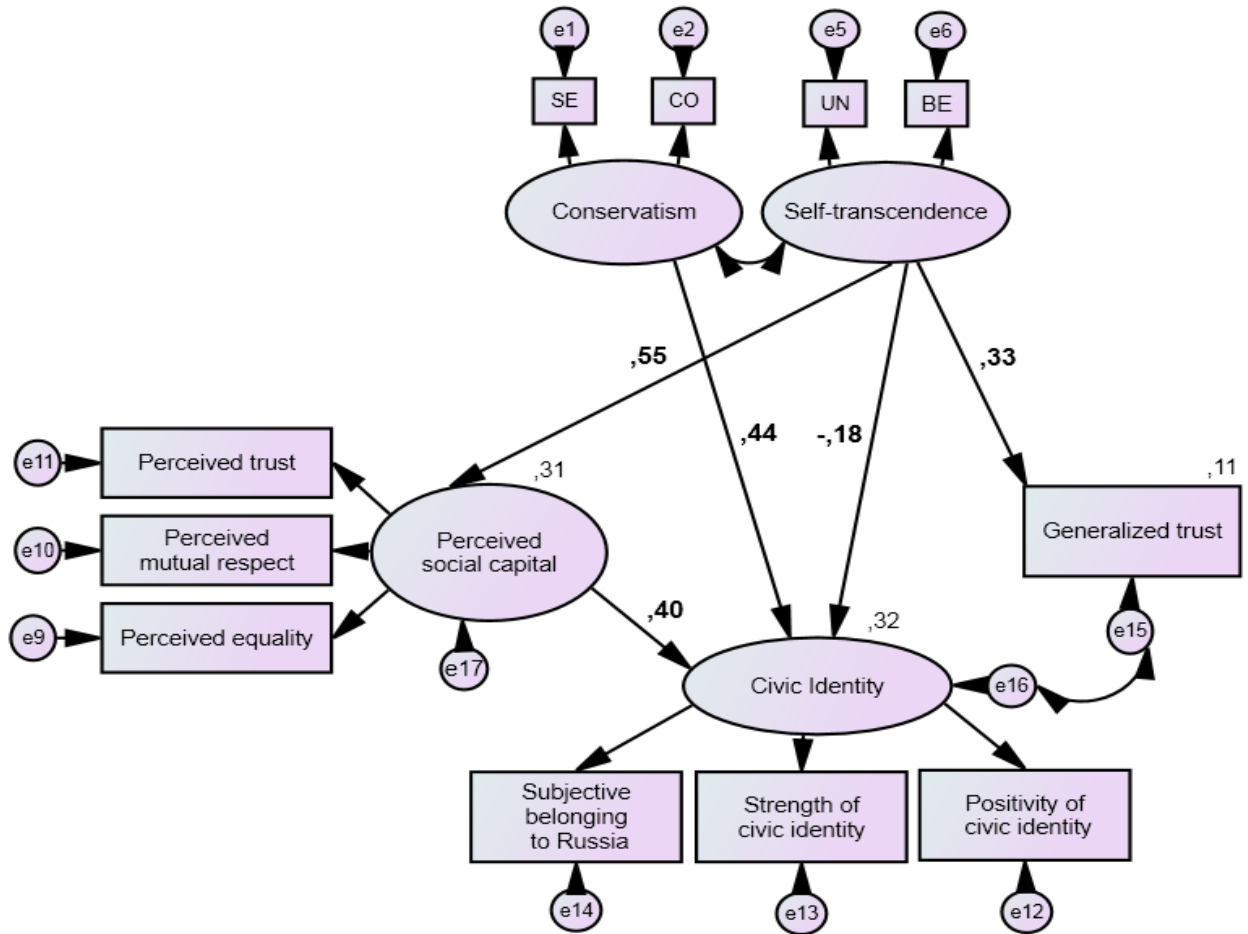


**Fig. 3. Model 2, predicting the effect of individual values on socio-psychological capital in the Chechen group**

Perceived social capital, as can be noted from Fig. 3, has a positive impact on civic (national) identity. However, if in the case of civic identity, we have the integral effect of a composite construct, generalized trust is affected only by one component - perceived trust.

According to theory, such components of socio-psychological capital of multicultural society as civic identity and generalized trust should correlate weakly with each other; there is no clear theoretical basis for the causal relationship between them. However, in the Chechen sample, generalized trust has a significant impact on the level of the subjective sense of belonging to Russia. Apparently, it is among the representatives of this ethnic group that generalized trust, as individual characteristics, may contribute to greater trust towards Russia as a whole and, consequently, to a greater sense of belonging to Russia.

Fig. 4 shows a model describing the influence of individual value orientations on socio-psychological capital in the Ingush group. In this ethnic group, compared with the previous two cases, there was found a relationship between the opposite poles of value oppositions - **Conservation** values (Security and Conformity) and **Self-Transcendence** values (Universalism and Benevolence). To improve the fit of the model, values of Tradition had to be removed from the unit of **Conservation**.



**Fig. 4. Model 3, predicting the influence of individual values on socio-psychological capital in the Ingush group**

In the Ingush group, perceived social capital has not demonstrated predictive ability in relation to generalized trust; however, the standardized regression coefficient, which characterizes the influence of perceived social capital of society on civic identity, is quite meaningful.

#### 4. Discussion of results

First of all, it has to be noted that the empirical data of this study indicate that values better predict socio-psychological capital on the level of value oppositions than separately. At this stage, three facts can be stated:

- 1) value orientations are related to socio-psychological capital;



- 2) there are clear trends in the influence of values on socio-psychological capital;
- 3) there are cross-cultural differences in the impact of individual values on socio-psychological capital.

#### **4.1 Cross-cultural similarities in the relationship between value orientations and socio-psychological capital**

The impact of **Openness to Change** values on perceived social capital and civic identity appeared to be universal for Russians and Chechens. The given group of values has a positive effect on civic identity and negative effect on perceived social capital. Thus, an individual with stronger expressed values of Self-Direction and Stimulation has a more critical attitude towards society; however, this does not rule out his/her identification with the community.

#### **4.2 Cross-cultural differences in the relationship between value orientations and socio-psychological capital**

There are more differences than similarities in the influence of values on socio-psychological capital among ethnic groups. First of all, attention should be drawn to the fact that in the Russian group general trust was not found to be influenced by values. In the Chechen group, values of **Self-Enhancement** and **Openness to Change** showed negative correlation with trust. That is, in this ethnic group, values reflecting the desire for domination over others may prevent the formation of such an important component of socio-psychological capital as trust. In the Ingush group reverse effect can be observed - the values of **Self-Transcendence** have a positive influence on trust towards other people. Thus, based on the data from these ethnic groups there have been obtained three possible correlations between values and trust: a) there is no correlation; b) values of **Self-Enhancement** can have a negative impact on trust; and c) the values of **Self-Transcendence** have a positive impact on general trust.

In the Ingush sample, values of **Conservation** and **Self-Transcendence** demonstrated the greatest predictive ability. In this ethnic group, the values of **Conservation** (Security, Conformity) have a positive influence on the civic (Russian) identity. Values of **Self-**

**Transcendence** (Universalism, Benevolence) predict trust and quite significantly (to 31%) predict perceived social capital.

#### **4.3 The role of individual value orientations in the socio-psychological capital of a multicultural society**

What have the results of this study brought to the understanding of the impact of values on socio-psychological capital of a multicultural society? In this respect, several assumptions can be made; however, to confirm these assumptions, it is necessary to conduct research on larger samples with more ethnic groups involved.

For the formation and functioning of socio-psychological capital in a multicultural society, the structure of values must be balanced. Since socio-psychological capital involves various dimensions, the enhancement of any of the units of value orientations will have an adverse effect on its certain components. In particular, the intensification of the role of **Self-Enhancement** values (Power, Achievement, Hedonism) in the life of an individual will adversely affect the trust of the individual and his/her evaluation of society. The increase of **Openness to Change** values (Self-Direction, Stimulation) may have a negative impact on perceived social capital but may positively affect civic identity.

Values of **Self-Transcendence** and **Conservation** are likely to be more conducive to the formation of positive relations with others and, hence, to the formation of socio-psychological capital, which constitutes the basis of social capital. These values contribute to the stability of relations within a group. Values of **Openness to Change** and **Self-Enhancement** constitute the basis of personality development, but are in confrontation with the unity of a group. However, they are important for the development of a group, since individuals with such "value baggage" stimulate change and innovation and "lead" others to achievements. Therefore, a group is successful when there is a balance of values within it. Otherwise, it will either not develop actively or will be torn by contradictions and conflicts. That is, in groups with high social capital, in theory, all four value oppositions must be expressed to the same level. The change in the ratio of their expression is likely to contribute to the reduction of social capital.

### **1. Findings**

1. Individual value orientations have impact on socio-psychological capital. The share of the variance of socio-psychological capital explained by individual values ranges from 8 to 32% on various indicators in different ethnic groups. Thus, the influence of individual value orientations on socio-psychological capital is not decisive but is essential.
2. Generally speaking, we can conclude that **Self-Transcendence** values have positive impact on socio-psychological capital, and **Self-Enhancement** values have negative impact. **Openness to Change** values positively influence civic identity, but negatively affect perceived social capital. **Conservation** values also demonstrate a positive relationship with civic identity. However, in this study, this effect was manifested only in the Ingush sample.
3. Individual value orientations, dominant in members of society, have an impact on socio-psychological capital. Therefore, the imbalance of the dynamic structure of value orientations (growing importance of certain values) can on the whole have a negative effect on social capital. Of course, social capital will not "suffer" if values of Benevolence and Universalism increase in society, but the increase of the importance of other values may negatively affect social capital.

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## **Report on Task 5.2: The Role of Cultural Diversity on Innovation**

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### **1. Introduction**

The external borders of the European Union (EU) have shifted drastically after the last enlargement in 2004. The EU now covers 27 very different countries with very different backgrounds and also, the range of neighbouring countries of the EU has widened. Although geographically close to each other, the countries in the European Union (EU) and its neighbouring countries differ significantly from each other according to cultural background and environment. This can be expected to have its influence on many life domains, including national performance and economic success. One mediator of this influence lies in innovations and innovative activity. It is commonly recognized that innovation is an important force for development. In forming the innovative milieu, a country's societal culture, i.e. shared values, beliefs, and behaviours play an important role. Thus, as countries of the EU and neighbouring countries differ significantly from each other according to cultural background and environment, the innovation performance in countries may also depend on these factors and it can be assumed that part of the differences in the innovative activity and innovation outcomes can be explained by the cultural diversity.

The research conducted under Task 5.2 was aimed to explore the role of cultural diversity on innovation as an important factor of economic performance. All researchers used their own point of view and that enabled a manifold treatment of this topic. When cultural diversity is under consideration, it can be understood as the differences between different countries, but also as the cultural diversity within countries. Hence, at least two important questions have to be answered. The first question is about the impact of cultural background on innovation and which cultural characteristics are promoting innovation and economic performance and which are hindering. The second question is about the impact of cultural diversity, including ethnic fractionalisation, within a country (or region) on national performance and economic success of a country. Even in the globalization era, cultural and ethnic diversity has been implicated as a factor of poor economic performance. Besides that, there are many other questions that need answering. For example, it is reasonable to assume that besides the direct impact of cultural background and diversity, these factors may also influence innovation performance via some mediators, for example social capital. Last, it can be assumed that the culture as the set of values and beliefs has its influence on the attitudes

towards innovations that in turn, undoubtedly are related to actual innovation performance in a particular country.

First, the working paper named “Culture as a Possible Factor of Innovation: Evidence from the European Union and Neighbouring Countries” (Anneli Kaasa) provides a general overview about the possible effect of different cultural dimensions on innovation performance covering as much EU-countries and neighbouring countries as possible. The analysis covers all 27 EU countries and 20 neighbouring countries: Norway, Iceland, Switzerland, Albania, Bosnia-Herzegovina, Croatia, Macedonia, Montenegro, Serbia, Moldova, Belarus, Russia, Ukraine, Armenia, Azerbaijan, Georgia, Turkey, Egypt, Jordan, and Morocco. To describe societal culture, Hofstede’s original concept of four cultural dimensions (power distance, uncertainty avoidance, masculinity-femininity, and individualism-collectivism) was used. Data from the latest waves of the European Values Study and the World Values Survey was used to describe culture.

Second the working paper named “Cultural Diversity and National Performance” (Nikolaos Hlepas) focuses on impacts of cultural diversity and ethnic fractionalization on different aspects of national performance. As one task, the paper tests whether the assumption about negative impacts of diversity does apply in most of the EU and the neighbouring countries. For this reason, diversity is being defined, measured and compared across several countries and then put side by side with national performance in governance, global competitiveness and human development, as well with the level of generalized trust in each country. Data that have been used and analyzed had been collected and systematized by bodies that specialize on conducting surveys whose findings are widely used, tested and accepted, such as the World Bank concerning governance, the UNDP concerning human development, the World Economic Forum concerning global competitiveness, the World Values Survey and the Gallup World Poll concerning values and attitudes.

Third, the working paper named “Cultural Diversity, Social Capital and Innovative capacity of Region-Industries” (Fabrice Periac) examines the impact of cultural diversity on innovation, using the concept of social capital as a channel between cultural diversity and innovation. This study adds also a new dimension by viewing the problems at the region-industry level. The period 1997-2005, for 32 EU regions is analysed using data from four databases: The PATSTAT 2009 database edited by PATSTAT, the EPO REGPAT 2010 database edited by OECD, the EEE PAT 2011 database, co-edited by EPO, EUROSTAT and the ECOOM lab from Louvain Catholic University, and the EUROSTAT database.

Last, a set of working papers consisting of “Values and Attitudes Towards Innovation Among Canadian, Chinese and Russian Students” (Nadezhda Lebedeva, Peter Schmidt), “Values and social capital as predictors of attitudes towards innovation” (Nadezhda Lebedeva, Ekaterina Osipova, Liubov Cherkasova) and “Implicit Theories of Innovativeness: a Cross-Cultural Analysis” (Nadezhda Lebedeva, Lusine Grigoryan) provide empirical evidence of the role of culture and individual values play in people’s attitudes to innovation in different cultural and regional groups with particular focus on Russian regions. The main goal of the researches was the analysis of how cultural diversity and individual values may drive creativity and innovation. The data used, include, respectively: 450 Russian, Canadian, Chinese college

students; 1238 adult respondents from four Russia's federal districts; 801 university students and secondary school teachers from 3 Russia's ethnocultural groups.

Together, these working papers give an overview of the role of cultural diversity on innovation, at the same time all covering different aspects of this complex research topic.

## **2. General conclusions**

The working papers of the Task 5.2 all looked at the possible impact of cultural background and diversity on innovations, national performance and economic success. At that, every working paper covered a different aspect of that complex topic. ‘

First, the working paper named “Culture as a Possible Factor of Innovation: Evidence from the European Union and Neighbouring Countries” (Anneli Kaasa) explored the possible effect of different cultural dimensions on innovation performance covering as much EU-countries and neighbouring countries as possible using Hofstede's original concept of four cultural dimensions (power distance, uncertainty avoidance, masculinity-femininity, and individualism-collectivism). The results indicated that all four cultural dimensions have significant influence on innovation. It was also found that countries group differently according to different cultural dimensions, but different cultural dimensions often seem to balance each-other: countries may have different combinations cultural dimensions, but still perform equally well in innovating. Hence, the final innovation performance is influenced by different cultural dimensions that may or may not balance each-other in a particular country. The indicator of the combined support of culture for innovation was calculated that appeared to explain quite well the differences in the innovation performance in different countries. Regarding policy, to change culture is a very complicated or possibly even impossible task. However, if this could be possible at least at some extent, for example, by promoting certain beliefs and attitudes, the possible policy should be focussed on those cultural dimensions that need to be changed in a particular country. As in different countries different cultural dimensions may hinder innovation, the thorough investigation of what dimension(s) would be the first priority is of great importance.

Second the working paper named “Cultural Diversity and National Performance” (Nikolaos Hlepas) focused on impacts of cultural diversity and ethnic fractionalization on different aspects of national performance. The results showed that the widely accepted assumption that cultural diversity and ethnic fractionalization have negative impacts on economic performance, human development, etc. could not be confirmed in many neighboring countries and new member states, while it certainly could not be confirmed in EU-15 states. Especially in countries following the Europeanization path for a longer period, in long-established democracies, in countries with good governance and strong institutional performance, cultural diversity does not seem to have any perceivable negative impacts on national performance.

Third, the working paper named “Cultural Diversity, Social Capital and Innovative capacity of Region-Industries” (Fabrice Periac) studied the impact of cultural diversity on innovation,



using the concept of social capital as a channel between cultural diversity and innovation. After analysing the possible impact of cultural diversity on innovations through two aspects of social capital: cohesiveness and heterogeneity of links; the results broadly confirm the positive impact of generalized cohesiveness. Region-industries that display networks of co-inventorship (between local inventors) that are denser than expected, given the number of local inventors, appear more innovative than the others, controlling for other influencing factors. This suggests that collaboration between local inventors (inventors of a specific industry that live in a same region) should be encouraged, regardless of their cultural attributes, in order to foster the innovation of the related region-industry. Regarding the other aspect of social capital, the results did not confirm the role of heterogeneity of links in the innovation processes.

Last, a set of working papers consisting of “Values and Attitudes Towards Innovation Among Canadian, Chinese and Russian Students” (Nadezhda Lebedeva, Peter Schmidt), “Values and social capital as predictors of attitudes towards innovation” (Nadezhda Lebedeva, Ekaterina Osipova, Liubov Cherkasova) and “Implicit Theories of Innovativeness: a Cross-Cultural Analysis” (Nadezhda Lebedeva, Lusine Grigoryan) analysed empirical evidence of the role of culture and individual values play in people’s attitudes to innovation in different cultural and regional groups with particular focus on Russian regions. The findings show that there are cultural differences in attitudes to innovations: the more modernized culture is, the more positive it’s members attitudes to innovations are. Regarding different values, openness to change promotes and conservation impedes acceptance of innovations. The empirical evidence that there are culturally specific relations of values with attitudes about innovation confirms the fact that we must consider specific features of a culture when introducing innovative patterns to it.

Together, these working papers give a manifold picture about the relationship between the cultural background, cultural diversity and economic, including innovation performance. It can be concluded that culture really matters for innovation and thus, for economic performance. At that it has to be taken into account that culture is a very broad phenomenon and different dimensions and aspects have to be considered when creating policies based on the knowledge about the impact of culture on innovations. More than one working paper concluded that care should be taken because in different countries different cultural dimensions may hinder innovation and every case (country, region) should be analysed separately. While cultural differences between countries/regions turned out to be significant and worth considering, the differences and diversity within countries or regions appeared not to be a problem, contrarily to the widely accepted assumption of the negative impact of cultural diversity and ethnic fractionalization. This is in accordance with the result that while the cohesiveness seems to be important for innovation, heterogeneity of links appeared not to be important.

# Culture as a Possible Factor of Innovation: Evidence from the European Union and Neighbouring Countries

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## **Abstract**

This exploratory study investigates the effect of different cultural dimensions on different innovation indicators covering as much EU-countries and neighbouring countries as possible. The measures of cultural dimensions were composed on the basis of the EVS/WVS data with the help of confirmatory factor analysis. Correlation, regression, graphical and cluster analyses were used. It was confirmed that innovation processes are strongly determined by culture: power distance, uncertainty avoidance and masculinity turned out to be negatively and individualism positively related to innovation performance. The final innovation performance may develop on the basis of the combined effect of four cultural dimensions that may or may not balance each-other in a particular country. Hence, the indicator of the support of culture for innovation was calculated on the basis of four cultural dimensions and it appeared to explain quite well the differences in the innovation performance between different countries.

## **Keywords**

Culture, Hofstede, Europe, innovation

## **JEL Classification**

M59, O31, Z19

## 1. INTRODUCTION

It is commonly accepted that innovations play an important role in economic development and growth. Besides the research and development (R&D) activity as an important input, the innovation process is additionally influenced by many other factors. One of the factors that have received much attention in the literature is the overall level of human capital of a particular country. However, there are many other intangible factors that possibly influence the propensity to innovate as well, such as the environment, where the innovation process takes place. In forming the innovative milieu, country's societal culture, i.e. shared values, beliefs, and behaviours play an important role. Although geographically close to each-other, the countries in European Union (EU) and its neighbouring countries differ significantly from each-other according to cultural background and environment. Thus, the innovation performance in these countries may also depend on these factors and it can be assumed that part of the differences in the innovative activity and innovation outcomes can be explained by the cultural differences.

The purpose of this exploratory study is to examine the effect of different cultural dimensions on innovation performance covering as much EU-countries and neighbouring countries as possible. The analysis covers all 27 EU countries and 20 neighbouring countries: Norway, Iceland, Switzerland, Albania, Bosnia-Herzegovina, Croatia, Macedonia, Montenegro, Serbia, Moldova, Belarus, Russia, Ukraine, Armenia, Azerbaijan, Georgia, Turkey, Egypt, Jordan, and Morocco. To describe societal culture, Hofstede's (1980) original concept of four cultural dimensions (power distance, uncertainty avoidance, masculinity-femininity, and individualism-collectivism) was used. Data from the latest waves of the European Values Study (EVS, 2010) and the World Values Survey (WVS, 2009) was used to describe culture. From initial indicators latent factors were composed with the help of confirmatory factor analysis. Correlation and regression analysis were used in order to explore the possible influence of four cultural dimensions on innovation. Then, graphical and cluster analysis was used to investigate further the countries' innovation performance and the possible cultural explanations. Last, the indicator of the support of culture for innovation was calculated in order to describe the combined effect of all four cultural dimensions.

The paper is structured as follows. The next section presents the theoretical background and after that data and measurement are introduced. Then, results are given and discussed, and last, conclusions are drawn and limitations pointed out.

## **2. THEORETICAL BACKGROUND**

Innovation is usually understood as the introduction of something new or significantly improved, be they products (goods or services) or processes. The innovation process has two aspects: inputs and outputs (Nasierowski and Arcelus, 1999). The inputs include, for example, R&D. The outcomes of the innovation process include e.g. patent applications, revenues from patents or scientific articles, but also profits from implementing new technologies or introducing new products without patenting them. While both the initiation and implementation aspects are important in innovation, often the initiation aspect receives more attention than the implementation aspect because of data availability: data about patenting, for example, are easily attainable, while the data about the other aspects of innovations, such as the share of enterprises with different innovative activities, new-to-firm products or processes can only be obtained from surveys.

As one of most important factors of innovation, the general level of human capital of a country – knowledge, skills and abilities of the labour force that can be improved with education – is commonly supposed to positively influence innovation. An overview of theoretical reasoning and empirical results can be found, for instance, in Dakhli and de Clercq (2004) or Subramaniam and Youndt (2005). Shortly, the general level of human capital determines the quality of the labour force, which is employed or can potentially be employed in R&D. Educated, bright and skilled employees tend to question common procedures, to be more creative and they also have more knowledge supporting their creativity. Human capital is included in this study as a control variable.

There are many different ways to define culture (see, for example, Taras et al. 2009; Chanchani and Theivanathampillai 2002; Hall 1980) and various definitions of culture are used in different research fields, such as sociology, anthropology, and the humanities. Here, the analysis is based on the sociological approach and culture is defined as a pattern of shared values, beliefs and behaviours of a group of people. These elements are common to various definitions, for example, Hofstede (2001) treats culture as “the collective programming of the mind that distinguishes the members of one group or category of people from another” and he explains that the “mind” stands for thinking, feeling and acting. Cultures can be characterised by the help of distinct dimensions and many different sets of dimensions can be found in literature in order to classify cultures (for example, Parsons and Shils, 1951; Kluckhohn and Strodtbeck, 1961; Schwartz, 1994; Inglehart and Baker, 2000; House et al., 2002). This analysis is based on the most widely-used concept of Hofstede (1980), which argues that the main cultural differences can be captured by four dimensions: power distance, uncertainty

avoidance, individualism-collectivism, and masculinity-femininity. Considering the extensive use of Hofstede's set of dimensions during the last three decades in both theoretical and empirical literature allows it to be viewed as a grounded approach for describing culture in the meaning used in this article. Although innovations in firms are undoubtedly influenced by organisational factors (i.e. organisational culture), it can be assumed that they also greatly depend on the surrounding (societal) culture as a whole. Here and hereafter, the focus remains on the societal culture. Next, these dimensions are introduced more closely.

First, power distance (PDI) reveals the extent to which unequal distribution of power in organizations and institutions and hierarchical relations are accepted in a culture. A large power distance can be characterized by centralized decision structures and the extensive use of formal rules. Second, uncertainty avoidance (UAI) shows to what degree people feel comfortable with uncertainty and ambiguity. In the case of high uncertainty avoidance, rules play an important role and are carefully followed, while in societies with low uncertainty avoidance, ambiguous and different situations are regarded as natural. Third, masculinity (MAS) (as opposed to femininity) describes to what degree masculine values, such as orientation towards achievement and success, assertiveness and competitiveness, prevail over values like modesty and good relationships, caring, solidarity or tolerance. Fourth, individualism (IND) (as opposed to collectivism) shows the extent to which people prefer to act as individuals rather than as members of groups. In individualistic cultures, autonomy, individual freedom and responsibility are valued, whereas in collectivist cultures, close social relations are important and individuals expect groups to look after them in exchange for loyalty.

The influence of culture for innovation lies in forming a more or less innovative milieu. Culture is considered to be an important determinant of innovation (Ulijn and Weggeman 2001; Westwood and Low 2003). First, the openness towards new experiences varies in different cultures, but innovations are associated with some kind of change and uncertainty. Cultures with strong uncertainty avoidance can be more resistant to innovations (Shane, 1993; Waarts and van Everdingen, 2005). To avoid uncertainty, these cultures adopt rules to minimize ambiguity. Rules and reliance on them, in turn, may constrain the opportunities to develop new solutions. Uncertainty-averse attitudes also mean that there is less incentive to come out with a new idea, which could be possibly rejected. However, there does not need to be a contradiction between following rules and creativity (Rampley, 1998; Rizzello and Turvani, 2002). It is possible that the certainty offered by the rule-following culture enables and encourages creativity. In addition, it can also be supposed that in cultures with stronger uncertainty avoidance, there is a stronger tendency to protect intellectual property with patenting, hence, if

patenting is used as an innovation indicator, the expected influence is not clear. Regarding the previous empirical evidence, Shane (1993) demonstrated that uncertainty avoidance has a negative effect on the number of trademarks per capita. Williams and McQuire (2005) showed that uncertainty avoidance has a negative effect on the economic creativity of a country and Kaasa and Vadi (2010) found a negative relationship between uncertainty avoidance and patenting intensity.

While innovation significantly depends on the spread of information, in the case of larger power distance, the sharing of information could be constrained by the hierarchy (van Everdingen and Waarts, 2003). In cultures that exhibit less power distance, communication across hierarchical boundaries is more common (Williams and McQuire, 2005; Shane, 1993), making it possible to connect different creative ideas and thoughts, which can then lead to unusual combinations and even radical breakthroughs. Also, it has been argued that bureaucracy reduces creative activity (Herbig and Dunphy, 1998). In the case of small power distance there is more trust between different hierarchical levels. When employees believe that it is appropriate to challenge the status quo, creativity is higher. Societies with larger power distance tend to be more fatalistic and hence, have less incentive to innovate (Herbig and Dunphy, 1998). These arguments are supported by several previous studies about the relationship between innovation initiation and power distance. Shane's (1992) analysis showed a negative correlation between the inventions patented and power distance. Later, Shane (1993) provided empirical evidence that power distance has a negative effect on the number of trademarks per capita. Kaasa and Vadi (2010) have also shown positive relationship between power distance and patenting intensity.

Innovation initiation is often seen as the act of an individual (Williams and McQuire, 2005): the initial ideas emerge in the head of an individual and the group can only be supportive or not. Individualistic cultures value freedom more than collectivistic cultures (Herbig and Dunphy, 1998; Waarts and van Everdingen, 2005). Hence, in individualistic societies employees have more opportunities to try something new, although that does not mean that in implementing collectivistic cultures cannot be more successful. Another important aspect is that in collectivistic societies, the contribution of an individual rather belongs to the organisation. In the individualistic societies individuals have more reasons than in collectivistic societies to expect compensation and recognition for inventive and useful ideas (Shane, 1992; Herbig and Dunphy, 1998). Also, there is less emphasis on loyalty to the organisation in individualistic societies (Herbig and Dunphy, 1998), which promotes the information exchange necessary for innovation. Looking at previous results, Shane (1992) found a positive correlation between the inventions patented and individualism. In addition, Shane (1993) showed that

individualism has a statistically significant positive effect on the number of trademarks per capita. In the analysis by Williams and McQuire (2005), there appeared to be a positive effect of individualism on the economic creativity in a country. Kaasa and Vadi (2010) found no relationship between overall individualism and patenting intensity, while family-related collectivism appeared to be negatively (and friends-related and organisations-related collectivism, positively) related to patenting intensity.

Masculinity is often believed to have no particular effect on economic creativity (Williams and McQuire, 2005; Shane, 1993). This proposition is also confirmed by some of the empirical evidence. Shane (1993) demonstrated that masculinity has no effect on the number of trademarks per capita. Williams and McQuire (2005) found no significant effect of masculinity on the economic creativity of a country. Nevertheless, there are some possible influences that have to be taken into account. In feminine societies the focus is on people and a more supportive climate can be found. A warm climate, low conflict, trust and socio-emotional support help employees to cope with the uncertainty related to new ideas (Nakata and Sivakumar, 1996). This is confirmed by Kaasa and Vadi (2010), who found a negative relationship between masculinity and patenting intensity.

### **3. DATA AND MEASUREMENT**

The set of countries under this analysis (neighbouring countries in addition to the EU countries) puts a researcher in front of a challenging task to find comparable data covering as much countries as possible from the set of countries under discussion. The data about cultural dimensions were mainly drawn from the European Values Study (EVS, 2010), that were complemented with the data about Egypt, Jordan and Morocco obtained from the World Values Survey (WVS, 2009). Unfortunately, for some neighbouring countries data were not available from the WVS as well. These two surveys are very closely connected and stand on the very similar methodological grounds. Many questions asked in these surveys coincide and that enabled to integrate the data from these two databases. Both surveys are multi-country surveys that are repeated every nine years and cover an increasing number of countries. Here, the data from the latest waves were used: for most countries the indicators pertain to the year 2008, except for Belgium, Finland, the United Kingdom, Iceland, Italy, Sweden, Turkey (2009) and Jordan and Morocco (2007). It should be pointed out that in WVS, data were given for Great Britain and Northern Ireland separately, instead of United Kingdom. However, as the population of Northern Ireland is only ca 3% of the population of United Kingdom, here the data of Great Britain were used as a proxy for the data of United Kingdom. There are about 1,500 respondents interviewed in every country (in some countries this number is smaller or larger, though: for countries

analysed here the number of respondents ranged from 808 to 3,051). The country-level indicators used in the current paper were obtained by aggregating individual-level data using the database-provided weights in order to ensure that the data would be representative of the demographic structure of a country.

In order to describe four cultural dimensions, the indicators were chosen based on the Hofstede's (2001) overview of the characteristics and differences of dimension extremes, and also resting on the previous analyses describing these cultural dimensions with the help of data from new surveys (see Kaasa and Vadi, 2010; Kaasa et al., 2012). Unfortunately, while the referred studies used the data from the European Social Survey, the choice of suitable variables for constructing the indicators of cultural dimensions is different and poorer in the EVS/WVS. Therefore, the dimensions of power distance, uncertainty avoidance and masculinity were each described by four indicators and individualism by three indicators. In order to capture the information of initial indicators into corresponding dimensions, a confirmatory factor analysis (the principal components method) was performed. As there were some missing values in the dataset, here and hereafter cases were excluded pairwise, not listwise, in order to utilise all the information available. The results of the factor analysis are presented in Appendix Table A1. In the case of power distance the negative relationship with the importance to give people more say probably reflects that in case of higher power distance people miss the opportunity to participate in decision-making processes. The percentages of total variance explained by the factors range from 47.79% to 59.98% and Kaiser-Meyer-Olkin (KMO) measures indicate the appropriateness of the factor models (values of the KMO measure larger than 0.5 are usually considered as acceptable). The factor scores of latent variables were again saved as variables. The scores of the indicators describing cultural dimensions for all countries can be found in Appendix Table A2.

Considering the set of countries analysed here (not only EU countries), the choice of innovation indicators appeared to be very complicated. It was not possible to use databases that include only a limited set of European countries, such as for example Eurostat or European Innovation Scoreboard, although they would enable to cover more different aspects of innovative activities as it is managed to include into this study. World Intellectual Property Indicators (WIPO, 2011) offered data about the resident patent filings (per million of population). In order to smoothen the fluctuations and to reduce the influence of possibly unusual values, the average values of the years 2008-2010 were calculated. Next, the Innovation Index that is a part of World Bank's Knowledge Indexes (World Bank, 2012) takes more output aspects into account. It is calculated as an average of the normalized scores of



(weighted by population) three indicators: royalty and license fees payments and receipts, patent applications granted by the US Patent and Trademark Office, and scientific and technical journal articles. The input side of innovative process is covered by the gross expenditure on R&D (as a percentage of GDP, data pertaining to 2007 or 2008) obtained from the INSEAD (2011). The indicator covering different innovation-related aspects in the broadest sense used in this analysis is the Global Innovation Index came from the INSEAD (2011). This index relies on two sub-indices, covering innovation inputs and outputs, respectively. The inputs are described by institutions, human capital and research, infrastructure, market sophistication and business sophistication; the outputs are characterized with the help of scientific and creative outputs (for more details see INSEAD (2011)). Last, human capital is described by the share of population aged 25 and over with completed tertiary education from Barro and Lee (2010) and here the average of the values from the years 2005 and 2010 was calculated. The standardized values of innovation indicators can be seen in Appendix Table A3.

Regarding the choice of observation years, it makes sense to assume that the innovation process takes time and thus a time lag could be useful between the observations of innovation and its factors. On the other hand, as the cultural environment does not change rapidly, it is possible that the results are not drastically influenced by the chosen time lag. Here, the data describing innovation factors, all pertain to the years 2007-2009. The innovation indicators come from the years 2007-2011.

#### **4. RESULTS AND DISCUSSION**

First, a correlation analysis of innovation indicators and the included factors on innovation was conducted. The results are presented in Table 1. It can be seen that the share of population with tertiary education is only moderately correlated with two indices and the correlation with patenting is not statistically significant. Regarding cultural dimensions, uncertainty avoidance, masculinity and power distance all appear to be negatively correlated with the innovation indicators, although in the case of power distance, the correlation seems to be stronger with R&D expenditures and the Global Innovation Index. As the Global Innovation Index incorporates R&D as one aspect, it can be assumed that power distance is more related to the inputs of innovation. In general, countries with lower uncertainty avoidance, masculinity and power distance could be more successful innovators. Individualism turned out to be positively correlated with innovation indicators. All these results are in accordance with the theoretical considerations about the relationships between cultural dimensions and innovations.

**Table 1.** Correlations between the innovation indicators, human capital and cultural dimensions

	R&D expenditures	Global Innovation Index	Innovation Index	Patenting
R&D expenditures	1	0.89***	0.80***	0.78***
Global Innovation Index	0.89***	1	0.88***	0.71***
Innovation Index	0.80***	0.88***	1	0.64***
Patenting	0.78***	0.71***	0.64***	1
Tertiary education	0.23	0.32**	0.38***	0.22
PDI	-0.33**	-0.36**	-0.26*	-0.21
UAI	-0.69***	-0.65***	-0.63***	-0.56***
MAS	-0.64***	-0.68***	-0.69***	-0.59***
IND	0.29*	0.46***	0.47***	0.30**

\*\*\* significant at the 0.01 level, \*\* significant at the 0.05 level, \* significant at the 0.10 level (two-tailed).

Next, regression analysis was conducted in order to investigate further the relative importance of different factors for different innovation indicators. After entering all cultural dimensions and tertiary education as a control variable into the model, backward method was used in order to find out the models, where statistically insignificant variables are excluded. The results are presented in Table 2.

For all models, the p-value of the F-statistic was below 0.001. As it can be expected in social sciences (Langbein and Felbinger, 2006), the values of R-squared were not very high ranging from 0.40 to 0.74. Regarding possible multicollinearity, VIF values were ranging from 1.27 to 2.81 for models with all variables entered and from 1.00 to 1.80 for models obtained by the backward method.

It can be seen from Table 2 that all four cultural dimensions seem to have significant influence on innovation, while at the same time the level of human capital seems to have almost no effect at all. Masculinity appeared to be the cultural dimension that is most strongly related to innovations: in less masculine and more feminine countries the innovative activity is higher. Uncertainty avoidance appears to be almost of the same importance: the results confirm that innovation is hindered by higher levels of uncertainty avoidance. The negative effect of power distance turned out to be statistically significant for R&D expenditures and the Global Innovation Index that also incorporates R&D activity. Hence, the previous supposition that the levels of power distance influence more the inputs and less the outputs of innovation, is confirmed. Individualism, on the contrary, appears to be more related with the outputs of innovation, which is also logical, as the positive influence of individualism

on innovation is largely reasoned by the incentives to initiate something new offered by the more individualist environment.

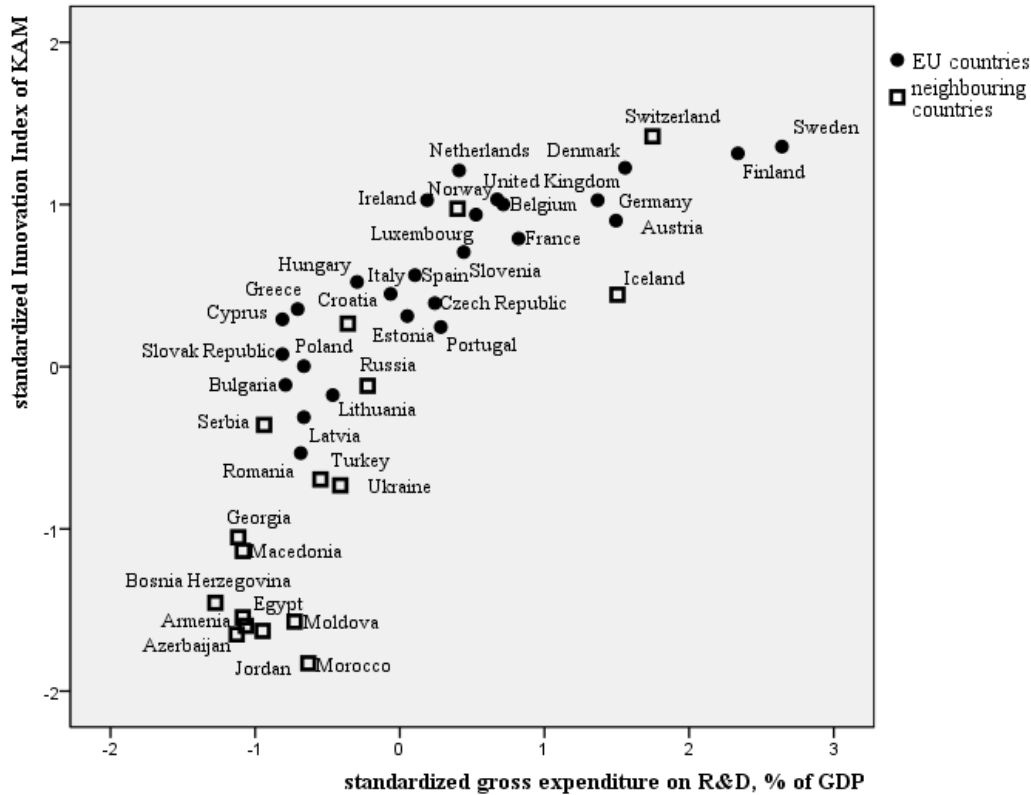
**Table 2.** The results of the regression analysis (standardized regression coefficients)

Method	Dependent variable:							
	R&D expenditures		Global Innovation Index		Innovation Index		Patenting	
	enter	backw.	enter	backw.	enter	backw.	enter	backw.
Tertiary education	-0.15		-0.06		-0.01		-0.09	
PDI	-0.19	<b>-0.28***</b>	-0.22**	<b>-0.22*</b>	-0.10		-0.06	
UAI	-0.54***	<b>-0.34**</b>	-0.31**	<b>-0.23**</b>	-0.26*	<b>-0.28**</b>	-0.30	<b>-0.29*</b>
MAS	-0.25	<b>-0.44***</b>	-0.38***	<b>-0.52***</b>	-0.35***	<b>-0.48***</b>	-0.35*	<b>-0.39***</b>
IND	0.16		0.35***	<b>0.29***</b>	0.40***	<b>0.41***</b>	0.26*	<b>0.26**</b>
F-Statistic	12.85***	20.48***	19.90***	24.07***	24.13***	33.59***	6.23***	12.55***
Adjusted R-square	0.60	0.58	0.70	0.68	0.74	0.68	0.40	0.43
No. of observations	39	43	40	44	41	46	40	46

\*\*\* significant at the 0.01 level, \*\* significant at the 0.05 level, \* significant at the 0.10 level (two-tailed).

Figure 1 provides a closer look at the positions of EU and neighbouring countries across R&D expenditure reflecting innovation inputs and the Innovation Index covering three aspects of innovation outputs. It can be seen that except Iceland, Norway and Switzerland, the most successful innovators are all EU countries. At the same time, the other end of the ‘cloud of observations’ comprises only non-EU countries. In the middle, both EU countries and neighbouring countries can be found. Also, as the relationship does not seem to be linear, it can be assumed that on the higher levels of innovation activity, more additional expenditure on R&D is needed in order to gain the comparable rise in innovation performance.

**Figure 1.** Positions of EU and neighbouring countries across R&D expenditure and the Innovation Index



In order to explore further the countries under consideration, cluster analysis was used next. Standardised indicators were used in order to prevent the influence of different scales of initial indicators on the results. Countries were grouped on the basis of three variables: R&D expenditures, the Global Innovation Index, and the Innovation Index (in order to balance the output-oriented and input-oriented indicators, the patenting indicator was left out). The k-means clustering with running means was used in order to get adequate results. For choosing the number of clusters the following principle was used. If adding one cluster results in a new cluster significantly different from the previous clusters, it will be added. If adding one more cluster gives a new cluster quite similar to some other cluster, the cluster will not be added. It turned out that it was most reasonable to divide countries into three clusters. The results of the cluster analysis are presented in Table 3. In order to give an idea about the variations within clusters, standard deviations are added in brackets.

It can be seen that Cluster 1 embodies countries that are most successful regarding innovation. Again, they are all EU countries, except Iceland, Norway and Switzerland. On the contrary, all countries in Cluster 3 are EU neighbouring countries that have the lowest values of the innovation indicators,

especially concerning the outputs of innovation. Cluster 2 incorporates all other countries – some of them EU countries and some neighbouring countries – that remain on the average levels according to the innovation performance. Hence, the results of the cluster analysis are in accordance with the grouping that could be suggested on the basis of Figure 1.

**Table 3.** Results of the cluster analysis on the basis of three innovation indicators (standard deviations in brackets)

	Cluster 1	Cluster 2	Cluster 3
Final cluster centres:			
R&D expenditures	1.07 (0.76)	-0.44 (0.36)	-1.01 (0.20)
Global Innovation Index	1.10 (0.52)	-0.36 (0.47)	-1.11 (0.37)
Innovation Index	0.98 (0.30)	-0.02 (0.43)	-1.55 (0.28)
Countries in clusters:			
	Austria	Belarus	Albania
	Belgium	Bulgaria	Armenia
	Czech Republic	Croatia	Azerbaijan
	Denmark	Cyprus	Bosnia Herzegovina
	Finland	Estonia	Egypt
	France	Greece	Georgia
	Germany	Hungary	Jordan
	Iceland	Italy	Macedonia
	Ireland	Latvia	Moldova
	Luxembourg	Lithuania	Morocco
	Netherlands	Malta	
	Norway	Poland	
	Slovenia	Portugal	
	Sweden	Romania	
	Switzerland	Russian Federation	
	United Kingdom	Serbia	
		Slovak Republic	
		Spain	
		Turkey	
		Ukraine	

Table 5 gives the mean values of cultural dimensions (and standardized indicator of tertiary education) by clusters. First, it can be seen that on average, the share of people with tertiary education is largest, the level of individualism highest and the levels of power distance, uncertainty avoidance and masculinity lowest in Cluster 1. Cluster 3 has, on the contrary, lowest levels of tertiary education and individualism, and highest levels of uncertainty avoidance and masculinity, but not the highest level of power distance (here, as also in the case of individualism, also the deviation within the cluster

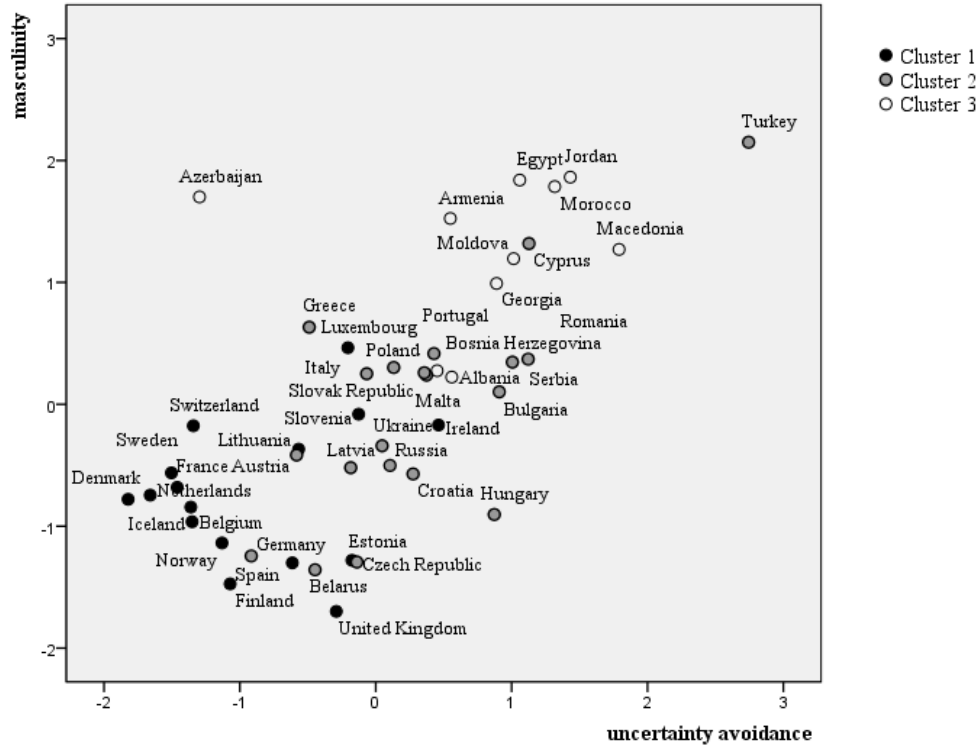
is the highest). Examining standard deviations shows that the consistency within clusters is highest in Cluster 1.

**Table 5.** Mean values of factors of innovation by clusters (standard deviations in brackets)

	Cluster 1	Cluster 2	Cluster 3
Tertiary education	0.29 (0.69)	0.03 (1.19)	-0.87 (0.53)
PDI	-0.35 (0.96)	0.55 (0.87)	0.25 (1.11)
UAI	-0.89 (0.67)	0.33 (0.82)	0.78 (0.84)
MAS	-0.74 (0.58)	-0.04 (0.87)	1.27 (0.61)
IND	0.68 (0.76)	-0.27 (0.77)	-0.44 (1.26)

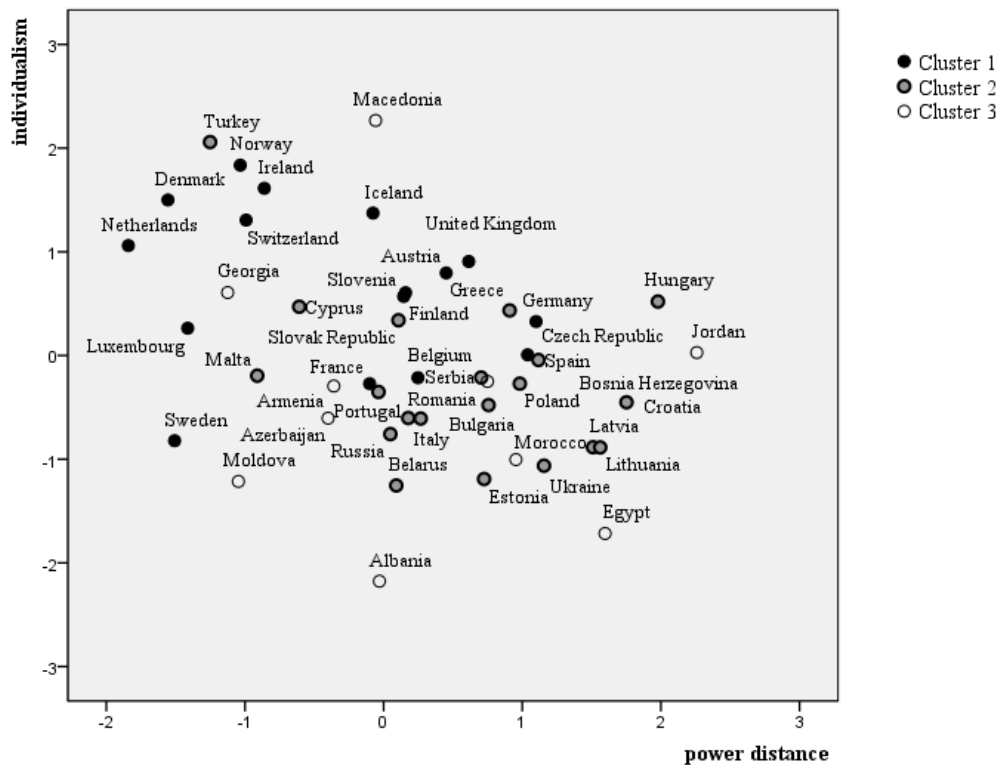
The possible within-cluster variations can also be seen in Figure 2. It demonstrates that in the countries with high innovation indicators (Cluster 1) both masculinity and uncertainty avoidance are lower than average. At the same time countries with poorest performance in innovation (Cluster 3) all have masculinity and uncertainty avoidance higher than average (except Azerbaijan, where this holds only for masculinity).

**Figure 2.** Positions of countries across uncertainty avoidance and masculinity



However, there are also countries, such as Turkey or Cyprus that although having both high uncertainty avoidance and masculinity, perform quite well according to innovation indicators. Also, there are countries with low levels of masculinity and uncertainty avoidance, e.g. Belarus or Spain that are not successful in innovating. One explanation can be found from the Figure 3. Turkey and Cyprus have quite a high level of individualism and low level of power distance and that probably enables to balance out the negative influence of high uncertainty avoidance and high masculinity. In Spain and Belarus, on the contrary, power distance is higher and individualism lower than average and that may hinder their success in innovating.

**Figure 3.** Positions of countries across power distance and individualism

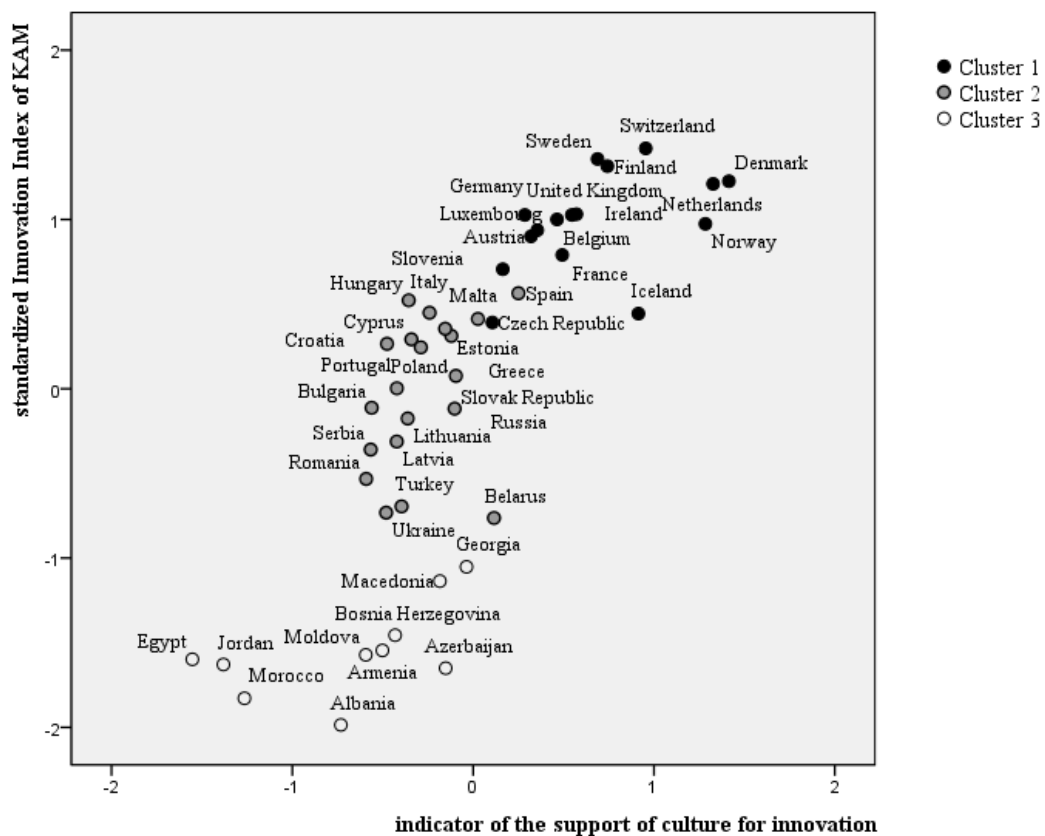


As the results of the regression analysis indicated that all four cultural dimensions have significant relationship with innovation, it can be assumed that the final innovation performance may develop on the basis of the combined effect of these four cultural dimensions. Although countries may have different combinations of these four cultural dimensions, they may perform equally well in innovating. Thus, the combined effect of culture (all four cultural dimensions) could be estimated by combining all four cultural dimensions into one indicator that reflects the expected influence of cultural background of a country on its innovation performance. The results of correlation and

regression analyses as well as the graphical analysis all indicate that individualism is positively and power distance, uncertainty avoidance and masculinity negatively related to innovation performance. Hence, the indicator that could reflect the support of culture for innovation should incorporate the indicator of individualism with a plus sign and the indicators of power distance, uncertainty avoidance and masculinity with minus signs.

Next, the indicator of the support of culture for innovation was calculated. First, the factors of power distance, uncertainty avoidance and masculinity were multiplied by -1 and then an average of the four indicators of cultural dimensions was calculated. The values of the new indicator for all countries can be found in Appendix Table A2. Figure 4 presents the positions of EU and neighbouring countries across the Innovation Index covering three aspects of innovation outputs and the indicator of the support of culture for innovation.

**Figure 4.** Positions of countries across the Innovation Index and the indicator of the support of culture for innovation





It can be seen that the calculated indicator of the combined effect of culture explains quite well the differences in the innovation performance between different countries. However, it can also be noticed that the countries in Cluster 3 have somewhat lower values of the Innovation Indicator as could be expected based on the cultural background. Inspecting the relationships of the combined effect indicator with other innovation indicators, however, showed that the problem is bigger in the case of innovation outputs than inputs. It can also be seen from Figure 1 that the difference between those countries from other countries is larger in the case of the Innovation Index and smaller in the case of R&D expenditures. Here, at least two explanations are possible. First, in those countries (neighbouring countries belonging to Cluster 3) the R&D expenditures are not utilized well enough. Second, it is also possible that the indicators used in this study focus on the aspects of innovation processes that are poorer in those countries. Usually, the most easily available way to measure innovation outputs is to count patents or scientific articles etc., but as was noted before, the tendency to protect intellectual property with patenting may also depend on culture as well as historical background and traditions. It is possible that the implementation aspect of innovation or even the initiation aspect (if innovations are not documented by patent applications, for example), are not covered well enough with the indicators used in this analysis. However, using other indicators cannot be expected to change the results and the relative positions of countries dramatically.

## **5. CONCLUSIONS**

This paper explored the influence of different cultural dimensions on innovation performance. For societal culture, Hofstede's (1980) original concept of four cultural dimensions was used. Theoretical considerations and previous results allow to suppose that uncertainty avoidance, power distance and masculinity have negative effect and individualism a positive effect on innovation. The measures of cultural dimensions were composed on the basis of the EVS/WVS data with the help of confirmatory factor analysis.

The results from correlation and regression analysis indicated that all four cultural dimensions have significant influence on innovation. Uncertainty avoidance and masculinity appeared to have strong negative relationship with all innovation indicators used. Power distance that was also negatively related to innovation seemed to be more related to the inputs and less to the outputs of innovation while individualism turned out to be positively related to innovation and to be more related with the outputs of innovation. All these results are in accordance with theoretical reasoning and previous results. Next, graphical and cluster analysis showed that countries group differently according to

different cultural dimensions, but different cultural dimensions often seem to balance each-other: countries may have different combinations cultural dimensions, but still perform equally well in innovating.

As all four cultural dimensions were found to be significant in regression analysis, it was assumed that the final innovation performance may develop on the basis of the combined effect of four cultural dimensions. Hence, the indicator of the support of culture for innovation was calculated as an average of the indicators of four cultural dimensions, incorporating the indicator of individualism with a plus sign and the indicators of power distance, uncertainty avoidance and masculinity with minus signs. The calculated indicator appeared to explain quite well the differences in the innovation performance in different countries.

In conclusion, it can be said that innovation outputs are undoubtedly highly related to innovation inputs, such as R&D, but innovation processes are also strongly determined by culture. At that, different cultural dimensions have to be taken into account. The final innovation performance is influenced by different cultural dimensions that may or may not balance each-other in a particular country. In countries, where innovation performance appeared to be the best (mainly EU countries, except Iceland, Norway and Switzerland), the cultural background summarily has to be supporting for innovation. Accordingly, in the countries with poorer innovation performance (most of the EU-neighbouring countries), the culture appears to be less supporting for innovation. It is hard to give any policy recommendations here, as to change culture is a very complicated or possibly even impossible task. However, if this could be possible at least at some extent, for example, by promoting certain beliefs and attitudes, the possible policy should be focussed on those cultural dimensions that need to be changed in a particular country. As in different countries different cultural dimensions may hinder innovation, the thorough investigation of what dimension(s) would be the first priority is of great importance.

Regarding the limitations of this study, first, the choice of the innovation indicators that could be used for the set of countries analysed in this study, was limited. It would be interesting to analyse the relationships of innovation with culture using other innovation indicators as well, covering other aspects of innovations, such as the share of enterprises with different innovative activities, new-to-firm products or processes, etc. that can be obtained from surveys. It is possible that the relationships found in this study between cultural dimensions and patenting, reflect not only the impact of culture on innovation, but also the impact of culture on the propensity to protect intellectual property. Next,

as only EU-countries and neighbouring countries were studied, the conclusions can be drawn also for these countries only. Whether the analysed relationships can apply to the whole world, is a topic for future studies. Last, some neighbouring countries had to be left out because of data availability, therefore, when more complete data became available, it would be interesting to re-run the analysis.

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## Appendix

**Table A1. Initial and final indicators of cultural dimensions**

Cultural dimension	Indicators	Factor loadings	Variance explained (%)	KMO Measure of Sampling Adequacy
Power distance	how much confidence in: parliament, scale 1-4	-0.79	47.79	0.57
	important in a job: use initiative, share of who mentioned	-0.67		
	how free are you to make decisions in job, scale 1-10	-0.66		
	important: give people more say, share of who mentioned	0.65		
Uncertainty avoidance	important in a job: job security, share of who mentioned	0.85	49.92	0.56
	most people can be trusted, share of who mentioned	-0.80		
	learn children at home: obedience, share of who mentioned	0.66		
	Important: maintaining order in the nation, share of who mentioned	0.45		
Masculinity	jobs are scarce: giving men priority, scale 1-3	0.79	55.86	0.69
	important in a job: responsible job, share of who mentioned	0.79		
	are you a religious person, share of who mentioned	0.78		
	how important in your life: work, scale 1-4	0.63		
Individualism	how important in your life: friends and acquaintances, scale 1-4	0.86	59.98	0.59
	how important in your life: leisure time, scale 1-4	0.80		
	learn children at home: independence, share of who mentioned	0.65		

**Table A2. Indicators of separate cultural dimensions and the combined indicator of the support of culture for innovation**

	<b>PDI</b>	<b>UAI</b>	<b>MAS</b>	<b>IND</b>	<b>combined</b>
Albania	-0,03	0,56	0,22	-2,18	-0,73
Armenia	-0,36	0,55	1,52	-0,30	-0,50
Azerbaijan	-0,40	-1,30	1,70	-0,60	-0,15
Austria	0,45	-0,57	-0,37	0,80	0,32
Belarus	0,09	-0,45	-1,36	-1,25	0,12
Belgium	0,25	-1,35	-0,96	-0,21	0,46
Bosnia Herzegovina	0,75	0,45	0,28	-0,25	-0,43
Bulgaria	0,76	0,91	0,10	-0,48	-0,56
Croatia	1,75	0,27	-0,57	-0,45	-0,48
Czech Republic	1,04	-0,18	-1,28	0,01	0,11
Cyprus	-0,61	1,13	1,32	0,47	-0,34
Denmark	-1,56	-1,82	-0,78	1,50	1,41
Egypt	1,60	1,06	1,84	-1,72	-1,55
Estonia	0,72	-0,14	-1,29	-1,19	-0,12
Finland	0,14	-1,07	-1,47	0,57	0,74
France	-0,10	-1,46	-0,68	-0,27	0,49
Georgia	-1,13	0,89	0,99	0,61	-0,04
Germany	1,10	-0,61	-1,30	0,33	0,29
Greece	0,91	-0,49	0,63	0,43	-0,15
Hungary	1,98	0,87	-0,90	0,52	-0,36
Iceland	-0,08	-1,36	-0,84	1,37	0,91
Ireland	-0,86	0,46	-0,17	1,61	0,55
Italy	0,18	-0,07	0,25	-0,60	-0,24
Jordan	2,26	1,43	1,86	0,03	-1,38
Latvia	1,51	-0,18	-0,52	-0,89	-0,42
Lithuania	1,56	-0,58	-0,42	-0,89	-0,36
Luxembourg	-1,41	-0,21	0,46	0,26	0,35
Macedonia	-0,06	1,79	1,27	2,27	-0,18
Malta	-0,91	0,37	0,24	-0,19	0,03
Moldova	-1,05	1,01	1,19	-1,21	-0,59
Morocco	0,95	1,32	1,79	-1,00	-1,26
Netherlands	-1,84	-1,66	-0,75	1,06	1,33
Norway	-1,03	-1,13	-1,14	1,84	1,28
Poland	0,98	0,13	0,30	-0,27	-0,42
Portugal	-0,04	0,43	0,42	-0,35	-0,29
Romania	0,27	1,12	0,37	-0,61	-0,59
Russia	0,05	0,10	-0,50	-0,76	-0,10
Serbia	0,70	1,01	0,35	-0,21	-0,57
Slovak Republic	0,11	0,36	0,26	0,34	-0,10
Slovenia	0,16	-0,13	-0,08	0,61	0,16
Spain	1,12	-0,92	-1,24	-0,04	0,25
Sweden	-1,51	-1,50	-0,56	-0,82	0,69
Switzerland	-0,99	-1,34	-0,18	1,31	0,95
Turkey	-1,25	2,74	2,15	2,06	-0,40
Ukraine	1,16	0,05	-0,34	-1,06	-0,48
United Kingdom	0,61	-0,29	-1,70	0,91	0,57

**Table A3. Indicators of innovation and human capital**

	R&D expenditures	Global Inn. Index	Innovation Index	Patenting	Tertiary education
Albania		-1,31	-1,99		-1,27
Armenia	-1,09	-1,05	-1,55	-0,54	0,16
Azerbaijan	-1,13	-1,44	-1,65	-0,77	
Austria	1,49	0,77	0,90	1,42	-0,33
Belarus			-0,76	0,53	
Belgium	0,72	0,60	1,00	-0,49	1,57
Bosnia Herzegovina	-1,28	-1,27	-1,46	-0,86	
Bulgaria	-0,79	-0,49	-0,11	-0,71	0,05
Croatia	-0,36	-0,54	0,27	-0,45	-1,32
Czech Republic	0,24	0,42	0,39	-0,34	-1,04
Cyprus	-0,81	0,33	0,29	-0,94	1,02
Denmark	1,56	1,41	1,23	1,51	0,01
Egypt	-1,06	-1,44	-1,60	-0,93	-1,21
Estonia	0,05	0,61	0,31	-0,51	1,08
Finland	2,34	1,46	1,31	1,90	0,38
France	0,82	0,62	0,79	0,96	-0,29
Georgia	-1,12	-1,16	-1,05	-0,57	
Germany	1,37	1,19	1,03	4,10	0,24
Greece	-0,71	-0,93	0,35	-0,47	1,79
Hungary	-0,30	0,50	0,52	-0,39	-0,01
Iceland	1,50	1,22	0,44	0,56	0,78
Ireland	0,19	1,11	1,03	0,68	1,34
Italy	-0,06	-0,26	0,45	0,27	-0,95
Jordan	-0,95	-0,49	-1,63	-0,92	-0,98
Latvia	-0,66	-0,35	-0,31	-0,19	-0,14
Lithuania	-0,46	-0,48	-0,18	-0,74	0,84
Luxembourg	0,53	0,96	0,94	0,09	-0,17
Macedonia	-1,09	-1,00	-1,14	-0,85	
Malta			0,41	-0,75	-0,90
Moldova	-0,73	-0,47	-1,57	-0,56	-0,80
Morocco	-0,63	-1,48	-1,83	-0,95	-1,12
Netherlands	0,41	1,34	1,21	0,32	0,84
Norway	0,40	0,96	0,97	1,11	0,46
Poland	-0,66	-0,53	0,00	-0,34	-0,60
Portugal	0,28	-0,08	0,24	-0,60	-1,43
Romania	-0,69	-0,65	-0,53	-0,53	-1,05
Russia	-0,22	-0,76	-0,12	0,68	1,90
Serbia	-0,94	-0,71	-0,36	-0,60	-0,72
Slovak Republic	-0,81	-0,43	0,08	-0,68	-0,97
Slovenia	0,44	0,19	0,71	0,59	-0,41
Spain	0,10	0,06	0,56	-0,31	0,75
Sweden	2,64	1,93	1,36	1,17	0,97
Switzerland	1,75	2,11	1,42	0,85	0,05
Turkey	-0,55	-0,93	-0,70	-0,70	-1,11
Ukraine	-0,41	-0,84	-0,73	-0,50	2,38
United Kingdom	0,67	1,30	1,03	1,26	0,22



# Cultural Diversity and National Performance

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## **Abstract**

This paper focuses on impacts of cultural diversity and ethnic fractionalization on different aspects of national performance. Under the circumstances of Europeanization and Globalization, cultural and ethnic diversity is expected to further increase both in the EU and in the ENPI countries. Based on empirical surveys that were mostly conducted outside the European contexts, a big part of theory argues that diversity has negative impacts on social cohesion and quality of governance, on economic performance and human development, in other words that diversity is bad for national performance. A first aim of this paper is to test whether the assumption about negative impacts of diversity does apply in most of the EU and the ENPI countries. For this reason, diversity is being defined, measured and compared across several countries and then put side by side with national performance in governance, global competitiveness and human development, as well with the level of generalized trust in each country. Subsequently, it is investigated, among EU and ENPI countries, whether acceptance of diversity is significantly stronger in some of them. Furthermore, institutional and cultural features of EU countries that were found to be more open to diversity while also reaching good scores of national performance are selected and systematized, following actor-centered institutionalism. The final aim of this paper is to draw lessons about institutions and policies that promote incorporation of diversity as a dynamic element of Europeanization and an addressee of ENPI policies.

## **Keywords**

Accepting diversity, citizenship regimes, culture, diversity, ethnic diversity, ethnic fractionalization, generalized trust, global competitiveness, human development, inequality, institutional performance, minorities, political culture, rational values, self-expression values, state tradition, welfare state models

## **JEL Classification**

J240, O180, O470, R110

## 5. INTRODUCTORY REMARKS

From the very beginning of their historical course, nation-states in Europe eagerly tried to homogenize their societies. Homogenization in terms of ethnicity and language, religion and core values has been promoted in many different ways. In most European countries, a national educational system was conceived, developed and excessively used as a main instrument of cultural homogenization. Normative frameworks and public institutions, meanings and symbols were employed in order to align divergent peculiarities of social groups and individuals. Cultural diversity within the borders of a country has been regarded for long as a major handicap in the ruthless rivalry among nation states. Even in today's globalization era, ethnic diversity (Mauro , 1995) and especially the so-called ethno-linguistic fractionalization has been implicated as a factor of poor economic performance (Easterly and Levine, 1997) and societal instability (Nettle et al. 2007).

On the other hand, there is evidence, that possible negative effects of ethno-linguistic fractionalization on economic performance can be counterbalanced through strong institutions (Easterly, 2001). According to the point of view of the "new institutionalism" (Lijphart 1999, March and Olsen 1989, North 1990), the organization of political life has important consequences for nature and quality of politics. Institutions help structure the nature of political discourse, furthermore they create opportunities and incentives for elites to mobilize citizens. Also tolerance and incorporation of cultural diversity, depend on institutional patterns (e.g. citizenship regimes, Weldon 2006). Moreover, there are historical examples (such as in communist Eastern Europe, but also elsewhere) where social fractionalization has been temporarily suppressed through authoritarian regimes excessively using ideology, state institutions and various repressive methods, enforcing a "pretended" homogenization that vanishes, however, as soon as the regime falls (Ash, 2000). Within a democratic system, coordination of social and economic life can be ensured, on the long run, through reliable institutions and their regulatory capacities.

Institutional performance, in its turn, is obviously connected not only to institutional design but also behavioral factors, such as the established political culture, including traditions and path dependencies (Arikan, 2011). European states follow distinct state traditions, citizenship regimes and welfare models, all of which address the balance between homogeneity and diversity not only at the institutional but also at the cultural level. From the very beginning, European Integration has been based on the acceptance if not encouragement of diversity both across but also within countries and member states. Europeanization, Globalization and other factors (e.g. environmental

changes, socio-demographic and value developments etc.) are expected to further promote diversity. European Union is encouraging policies and practices of tolerance and openness, mainly through normative (“*aquis communautaire*”) and economic instruments, while leaving space to national institutional choices and traditions.

All democracies can principally be described as “open societies” (Popper, K., 2006), since political leaders can be overthrown through free vote and choice of the people. In open societies, human rights are respected and government is expected to be responsive to the needs of people, transparent in its options and tolerant towards minorities. An open society is associated with cultural and religious pluralism, while it is always open to change and improvement because there is no ultimate truth and knowledge is always ongoing. Individualism and criticism seem to flourish in democratic states and open societies, paving the way for the prevalence of secular-rational over religious values and self-expression over survival attitudes (Triandis, 1995, Welzel, 2006, Li and Bond, 2010). Furthermore, secular/rational and self-expression values seem to correspond to higher levels of generalized interpersonal trust (Díez, 2009) that is expected to connote more tolerance towards strangers and people different from oneself. In other words, the higher the generalized interpersonal trust is, the higher is the acceptance of cultural diversity within one’s own living environment expected to be.

The paper is structured as follows. The next session deals with the question of defining and measuring diversity, reviewing theory and using data on diversity from several surveys. Then, the third part tests the wide spread hypothesis that cultural diversity has negative impacts on a country’s institutional and economic performance, on human development, on social cohesion, inequality and social trust. The fourth part is attempting to trace acceptance of diversity in different societies, using elaborated data from different sources but also secondary literature, engaging also human development theory. Based on the findings of this previous part, the fifth part adopts the perspective of actor-centered institutionalism, while first systematizing institutional and cultural features in EU-15 countries with long trajectories on the path of Europeanization in order to pick out institutional features and characteristics that seem to encourage the incorporation of diversity. Finally, some conclusions concerning constructive inclusion of diversity in the EU and its neighbors are drawn.

## **2. DEFINING AND MEASURING DIVERSITY**

According to the sociological approach, culture is a common pattern of beliefs, values and behaviors within a group of people. Hofstede (1984), simply defined culture as “a collective programming of the mind which distinguishes the members of one category of people from another” and clarified that “mind” stands not only for thinking and feeling but also for acting. values provide limits and act as effective guide for individual action and behavior. In other words, Culture provides group members with beliefs and values channeling individuals into an assortment of possible behaviors (Triandis, 1995). The adaption of these shared values and assumptions by the younger generation through learning and socialization means that culture has a stable element (Arikan, 2011), although this fact does not justify a perception of culture as a static element. Cultural orientations within a certain group of people usually adjust to significant changes in physical, political, or economic environments. However, cultural change is regularly slow and it disseminates easier to younger people, resulting in intergenerational changes (Inglehart, 1990).

In scientific literature, culture is often implied as an explaining framework and an independent variable for cross-national variation in institutional or/and economic performance (Inglehart & Welzel, 2005). Consequently, when countries are compared, the aspect of “culture” is often used in order to trace and explain disparities. Cultural differences can be captured, according to Hofstede (1980) by four dimensions: power distance, uncertainty avoidance, individualism-collectivism and masculinity-femininity (Kaasa, 2012). This kind of cross-national comparisons refer to cultural dimensions and characteristics that have been empirically measured at country or national level (sometimes also at sub-national regional level), considering nations as cultural units and usually putting aside cultural variations within countries compared. The assumption that countries are more or less culturally homogeneous is questionable, even in Europe where nation-states have a long history and a long tradition of homogenization efforts and processes. On the other hand, the homogenizing forces of political and educational systems, nation-wide living contexts, mass media and national symbols would tend to frame a cultural unit at the country level (Hofstede, 1980), especially in long-established nation states. Schwartz (2004) compared the within and between-country cultural distances across various nations and he found out that cultural distance between samples from different countries is almost always greater than the distance between samples from the same country.

Then again, it is obvious that sub-national cultural variations exist in every country, but degrees and combinations of these dissimilarities can be very different. Furthermore, there is always the question of defining cultural dissimilarities and cultural sub-groups through adequate criteria. For example, the criterion of “racial” characteristics in defining cultural sub-groups, is facing strong criticism, while ethnic, linguistic, religious and regionalist criteria are quite common in defining and distinguishing cultural units (Alesina and La Ferrara, 2005). Furthermore, percentage of

immigrants in a country's population, sometimes further distinguishing between "recent" (less than 5 years in the country) and "simple" immigrants is used in order to address cultural diversity and its impact on economic life of a country, a region or a city (Card 2001, Ottaviano and Peri, 2006).

According to several studies, the scale of cultural diversity within a country can have distinct impacts on development prospects and growth. For example, sub-saharian Africa's poor economic performance has been ascribed to its' high ethno-linguistic diversity (Easterly and Levine, 1997). Quite often, even the use of the term "fractionalization" instead of "diversity", seems to allude a negative effect on social cohesion. According to some scholars, ethno-linguistic fractionalization leads to poor policy decisions, because strong competition among solid interest (ethnic) groups for the provision of public goods and the control of limited resources is expected, also resulting in higher levels of government consumption (Alesina et al. 1999). Ethnic diversity is a factor that can negatively influences the quality of government (La Porta et al. 1999). Ethnically polarized societies are often characterized by competitive rent-seeking activities by different groups and can hardly agree upon choices for public infrastructure (Alesina et al. 2003, 2005), diversity is costly in terms of social cohesion (Putnam 2007). Furthermore, ethnic fractionalization in a community is supposed to decrease generalized interpersonal trust that is a key element of social capital (Glaeser et al. 2000). Since out-group trust is the exception and in-group trust is the norm, different cultures would impede economic integration and cultural diversity would cause increasing competition between incompatible ways of life (Forbes, 1997). Robert Putnam (2007) argued that reduction of homogeneity in American areas (parallelized to ethnic heterogeneity in Eastern Europe) goes along with setbacks in both bonding and bridging social capital, having significant impacts for both institutional and economic performance.

But how can one exactly measure the degree of cultural diversity within a country and examine its impact on economic growth? Mauro (1995) introduced the concept of ethnic diversity and empirically examined its effect on economic growth, employing the diversity index, the Ethno-Linguistic Fractionalization (ELF) Index. Mauro concluded that ethno-linguistic fractionalization leads greater probability of political instability and impedes economic development. The concept of the ELF was developed in 1964 by Soviet social scientists in an attempt to determine the number of ethno-linguistic groups in the world population (Okedji 2011). Later on, Taylor and Hudson (1972) used the Soviet data to compute an ELF Index, based on linguistic groupings, that became the most widely used measure of ethnic diversity.

Nevertheless the ELF Index has been criticized, since language like other forms of differentiation such as race, religion, and culture, despite their instrumental value often cover fundamental

distinctions in ethnically plural societies (e.g. Brazil, Nigeria, Canada, Russia, but also Switzerland, U.K. and elsewhere). In addition to that, ethnic and singular cultural indices of diversity pose the additional complication of overlap. Ethnic identity includes multiple cross-cutting features that combine linguistic, racial, religious, and cultural elements, blurring distinctions (Okedji 2011). Furthermore, ethnic identity is not necessarily, as some “premordialists” argue a pre-existing exogenous factor. A much more convincing “constructivist” approach, highlights the fact that ethnic identity can also be an endogenous construct (Fearon, 2003) that is instrumentally crafted and manipulated for political and other reasons, it can furthermore be fluid at the side of context and time. For these reasons, some authors have proposed a mixture of measures of ethnic fragmentation, which are modifications of the ELF index (e.g. Alesina et al, 2003, Fearon 2003, s. also below). A much more sophisticated index has been developed by Okedji (2005), which is a weighted index of ethnic, religious, racial and linguistic diversity, measuring social fragmentation and is trying, for the first time, to combine multiple and overlapping characteristics of ethnic identity in a single index, the Social Diversity Index (SDI). Major sources of data for identifying ethnic groupings for measuring diversity (Okedji 2005) were the Encyclopedia Britannica, the Library of Congress Country Study, the World Christian Encyclopedia, the CIA World Factbook and the Handbook of Political Indicators. In the following table, ELF and SDI scores of various countries (unfortunately not including East European Countries) are being presented:

**Table 1: Ethnic fractionalization (ELF index) and cultural diversity (SDI index) scores by region and country**

<b>Region/ Country</b>	<b>ELF</b>	<b>SDI</b>	<b>Region/ Country</b>
<i>W.Europe</i>			<i>W.Europe</i>
Belgium	0.55	0.8615	Switzerland
Switzerland.	0.50	0.8582	Germany
Spain	0.44	0.8541	UK
Cyprus	0.35	0.8464	France
UK	0.32	0.7620	Belgium
France	0.26	0.7435	Spain
Finland	0.16	0.6750	Italy
Luxembourg	0.15	0.6253	Sweden
Austria	0.13	0.6127	Ireland
Greece	0.10	0.5768	Luxembourg
Netherlands	0.10	0.5558	Austria
Malta	0.08	0.5263	Norway
Sweden	0.08	0.4505	Netherlands
Denmark	0.05	0.3517	Cyprus
Iceland	0.05	0.3176	Finland

Norway	0.04	0.2999	Greece
Ireland	0.04	0.2977	Denmark
Italy	0.04	0.2807	Iceland
Germany	0.03	0.2771	Portugal
Portugal	0.01	0.2045	Malta
<b><i>M.East</i></b>			<b><i>M.East</i></b>
Turkey	0.25	0.9527	Israel
Syria	0.22	0.6963	Turkey
Israel	0.20	0.5421	Syria
<b><i>N.Africa</i></b>			<b><i>N.Africa</i></b>
Morocco	0.53	0.7932	Morocco
Algeria	0.43	0.6450	Algeria
Tunisia	0.16	0.5200	Tunisia
Egypt	0.04	0.4707	Egypt

SOURCE: For ELF: Taylor and Hudson (1972), For SDI Okedji (2011)

Differences in ranking of countries, between the ELF and the SDI measuring, are not only due to different sampling times, but also to the fact that ELF has only been measuring linguistic diversity and, for this reason, a country like Germany, for instance, seems to be the second most homogeneous countries in Europe, while the same country, according to SDI, is assessed as the second most heterogeneous country in Europe. It is obvious that this is not only the result of much higher percentages of migrants in Germany when SDI has been measured, but also to the fact that, among other factors, also religious fractionalization is captured by SDI.

Ex-communist central and eastern European countries have been included in some other studies that measured cultural diversity. In order to measure social heterogeneity, Alesina et al. (2003) developed fractionalization scores simply based on ethnicity, religious and linguistic data directly from the Encyclopedia Britannica (EB) lists but also from other secondary sources for countries not listed in the EB. Data on ethnicity were collected in different single years (ranging from the recent year 2001 for some countries back to 1979 for other countries). Furthermore, relative significance and salience of each ethnic group had not been taken into consideration. A much more reliable methodology has been developed by Fearon (2003) who constructed a list of ethnic groups depending on what people in the country identify as the most socially relevant ethnic groupings. In other words, “*the idea of an ethnic group is the idea that members and non-members recognize the distinction and anticipate that significant actions are or could be conditioned on it*”. In addition to that, Fearon constructed an index of cultural fractionalization that used the structural distances between languages as a proxy for the cultural distance between groups in a country. Fearon’s study seems to offer the most reliable measurement of ethnic and cultural fractionalization that included a very wide range of countries:

**Table 2: Ethnic fractionalization and cultural diversity scores by region and country**

<b>Region/ Country</b>	<b>Ethnic Fractionalization</b>	<b>Cultural Diversity</b>	<b>Region/ Country</b>
<i><b>W.Europe</b></i>			<i><b>W.Europe</b></i>
Switzerland	0.575	0.462	Belgium
Belgium	0.567	0.418	Switzerland
Spain	0.502	0.359	Cyprus
Cyprus	0.359	0.263	Spain
UK	0.324	0.251	France
France	0.272	0.189	Sweden
Sweden	0.189	0.184	UK
Ireland	0.171	0.157	Ireland
Finland	0.132	0.132	Finland
Denmark	0.128	0.128	Denmark
Austria	0.126	0.1	Austria
Norway	0.098	0.098	Norway
Germany	0.095	0.09	Germany
Netherlands	0.077	0.077	Netherlands
Greece	0.059	0.05	Greece
Portugal	0.04	0.04	Portugal
Italy	0.04	0.04	Italy
<i><b>E. Europe</b></i>			<i><b>E. Europe</b></i>
Bosnia	0.681	0.492	Estonia
Latvia	0.585	0.441	Latvia
FYRMacedonia	0.535	0.432	FYRMacedonia
Estonia	0.511	0.404	Georgia
Moldova	0.51	0.401	Moldova
Georgia	0.49	0.311	Russia
Ukraine	0.419	0.293	Slovakia
Croatia	0.375	0.265	Romania
Belarus	0.372	0.259	Lithuania
Lithuania	0.338	0.258	Ukraine
Russia	0.333	0.25	Bulgaria
Slovakia	0.332	0.228	Belarus
Czech Republic	0.322	0.187	Azerbaijan
Romania	0.3	0.185	Croatia
Bulgaria	0.299	0.185	Hungary
Slovenia	0.231	0.17	Slovenia
Azerbaijan	0.188	0.146	Bosnia
Hungary	0.186	0.124	Armenia
Armenia	0.134	0.082	Albania
Albania	0.097	0.064	Czech Republic
Poland	0.047	0.041	Poland
<i><b>M.East</b></i>			<i><b>M.East</b></i>



Lebanon	0.78	0.299	Turkey
Syria	0.581	0.246	Israel
Israel	0.526	0.235	Syria
Jordan	0.509	0.195	Lebanon
Turkey	0.299	0.049	Jordan
<i>N.Africa</i>			<i>N.Africa</i>
Morocco	0.479	0.36	Morocco
Algeria	0.32	0.237	Algeria
Egypt	0.164	0.127	Libya
Libya	0.151	0.033	Tunisia
Tunisia	0.039	0	Egypt

SOURCE: Fearon 2003

According to the aforementioned data, it is obvious that ethnic fractionalization and cultural diversity are, generally speaking, higher in Eastern Europe, Middle East and North Africa, than in Western Europe. However, in certain West European countries the corresponding scores are quite high (e.g. in Switzerland, Belgium, Spain, Cyprus, U.K, and France), not only compared to the rest of the West European Countries, but also compared to many East European, Middle Eastern and North African countries.

### 3. IMPACTS OF DIVERSITY ON NATIONAL PERFORMANCE AND SOCIAL COHESION

It would certainly be interesting to test, whether the widely accepted hypotheses, that cultural diversity is costly in terms of institutional and economic performance, human development and generalized interpersonal trust (s. above) can be confirmed, simply comparing the scores of cultural diversity with the scores of governance quality, economic performance in terms of competitiveness, human development and generalized trust in each country.

Concerning *cultural diversity*, Fearons index (2003) of “ethnic fractionalization” has been used, because it covers much more countries than the ELF and the SDI indexes, furthermore it includes more criteria the single linguistic criterion of Fearons index on structural distances between language. Fearon’s definition of “ethnic” group is based on the distinction and the significance of that group as it is perceived both by members and non-members of this group.

Concerning *governance quality* (GQ) factor of overall governance (from -2 min. to +2 max.) has been used, that has been elaborated by Kaasa (2012) for the SEARCH Project, based on data from the Worlbank (2010) including six measures of governance, namely Voice and Accountability,

Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption.

Concerning *competitiveness*, the *Global Competitiveness Index* (GCI) is employed (scores min. 0-7 max.). The report of the *World Economic Forum* (WEF). The WEF (World Economic Forum, 2011) defines *competitiveness* as *the set of institutions, policies, and factors that determine the level of productivity of a country*. The level of productivity, in turn, sets the level of prosperity that can be earned by an economy. The Global Competitiveness Index includes a weighted average of many different components, each measuring a different aspect of competitiveness. These components are grouped into 12 interrelated pillars of competitiveness (Quality of Institutions, Infrastructure, Macroeconomic Environment, Health and Primary Education, Higher Education and Training, Goods Market Efficiency, Labor Market Efficiency, Financial Market Development, Technological Readiness, Market Size, Business Sophistication, Innovation). The GCI uses various data sources for statistics but also the World Economic Forum's annual Executive Opinion Survey (Survey) to capture concepts that require a more qualitative assessment (WEF 2011). As an assessment of economic capacity and performance, the GCI has some advantages in comparison to GDP or GDP Growth, since it includes a series of many different variables affecting economic performance and is not simply a measure of production of goods and services. Moreover, criticism on GDP has pointed out since decades, that it is not an adequate and reliable measure of social welfare, development and prosperity (Galbraith 1958, Samuleson 1961, Sen 1976, Berg 2007).

Arguments against GDP as a measure were among the causes that led to the conception of another index of development, the *Human Development Index* (HDI), which has been created by [Mahbub ul Haq](#), followed by [Amartya Sen](#) in 1990. HDI is measuring development by combining indicators of life expectancy, educational attainment and income (Health-Education-Living Standards) into a composite index, a single statistic which serves as a frame of reference for both social and economic development. The HDI sets a minimum and a maximum for each dimension, called goalposts, and then shows where each country stands in relation to these goalposts, expressed as a value between 0 and 1. Data for Human Development reports are collected from UN authorities, UNESCO and the World Bank, not directly from countries (UNDP 2011).

Finally, concerning *social capital*, its' core element, namely the *generalized trust to strangers* is being presented. Scores of generalized trust refer to the people that answered in each country that "others" in their society could be trusted. Data are from 2010, covering a big number of countries and coming from [Gallup World Poll](#) & [World Values Survey](#), elaborated by the Legatum Institute

(Legatum Institute, Legatum Prosperity Index 2011). Generalized trust is expected to be *sensitive to culture diversity*, since it refers to trusting the “others”, strangers etc.).

**Table 3: Ethnic fractionalization, governance, competitiveness, development and trust**

<b>Region/ Country</b>	<b>Ethnic Fract.</b>	<b>GQ</b>	<b>GCI</b>	<b>Human Devel.</b>	<b>Gener. Trust</b>
<b><i>W.Europe</i></b>					
Switzerland	0.575	1.39	5,74	0.903	45.27
Belgium	0.567	0.97	5,20	0.886	30.61
Spain	0.502	0.46	4,54	0.878	22.44
Cyprus	0.359	0.71	4,36	0.840	-
UK	0.324	1.03	5,39	0.863	35.79
France	0.272	0.90	5,14	0.864	19.86
Sweden	0.189	1.46	5,61	0.904	56.14
Ireland	0.171	1.11	4,77	0.908	30.47
Finland	0.132	1.56	5,47	0.882	58.51
Denmark	0.128	1.52	5,40	0.895	62.05
Austria	0.126	1.23	5,14	0.885	30.07
Norway	0.098	1.38	5,18	0.943	74.2
Germany	0.095	1.09	5,41	0.905	31.59
Netherlands	0.077	1.33	5,41	0.910	46.93
Greece	0.059	-0.08	3,92	0.861	16.46
Portugal	0.04	0.53	4,40	0.809	27.85
Italy	0.04	0.05	4,43	0.874	20.71
<b><i>E. Europe</i></b>					
Bosnia	0.681	-0.99	3.83	0.733	-
Latvia	0.585	0.22	4.24	0.805	13.10
FYRMacedonia	0.535	-0.67	4.05	0.728	9.13
Estonia	0.511	0.69	4,62	0.835	34.04
Moldova	0.51	-1.00	3,89	0.649	12.58
Georgia	0.49	-0.61	3.95	0.733	-
Ukraine	0.419	-1.19	4.00	0.729	30.66
Croatia	0.375	-0.07	4.08	0.796	22.16
Belarus	0.372	-1.66	-	0.756	35.64
Lithuania	0.338	0.29	4.41	0.810	25.52
Russia	0.333	-1.39	4.21	0.755	24.69
Slovakia	0.332	0.35	4,19	0.834	21.24
Czech Republic	0.322	0.51	4,52	0.865	25.40
Romania	0.3	-0.33	4.08	0.781	15.17
Bulgaria	0.299	-0.31	4.16	0.771	21.08
Slovenia	0.231	0.49	4.30	0.884	14.89
Azerbaijan	0.188	-1.47	4.31	0.700	-
Hungary	0.186	0.31	4.36	0.816	13.32
Armenia	0.134	-0.88	3.89	0.716	-
Albania	0.097	-0.74	4.06	0.739	-
Poland	0.047	0.38	4.46	0.813	25.23

<b><i>M.East</i></b>					
Lebanon	0.78	-1,24	3.95	0.739	6.74
Syria	0.581	-1.60	3,85	0.632	9.59
Israel	0.526	0.05	5.07	0.888	27.02
Jordan	0.509	-0.64	4.19	0.698	9.56
Turkey	0.299	-0.61	4.28	0.699	8.43
<b><i>N.Africa</i></b>					
Morocco	0.479	-0.91	4,16	0.582	58.51
Algeria	0.32	-1.56	3.96	0.698	15.80
Egypt	0.164	-1.18	3.88	0.644	18.21
Libya	0.151	-1.79	-	0.760	-
Tunisia	0.039	-0.74	4.47	0.698	14.79

SOURCES: Fearon 2003 (*Ethnic Fractionalization Index*), World Bank and Kaasa (*Good Governance Factor, 2010 and 2012*), World Economic Forum (*GCI 2011*), UNDP (*HDI 2011*), Legatum Institute (*Generalized Trust, [Gallup World Poll](#) & [World Values Survey](#) 2010*).

Although, it has not been statistically tested whether and what kind of correlation can be made among these different variables, one can simply compare the scores of different countries in order to check whether the hypothesis that cultural diversity has multiple negative effects (on development, governance, social capital etc.) can be confirmed, or whether the impact of cultural diversity on a country's institutional and economic performance and on social capital is depending on a much more complex set of factors and their constellation within each national context.

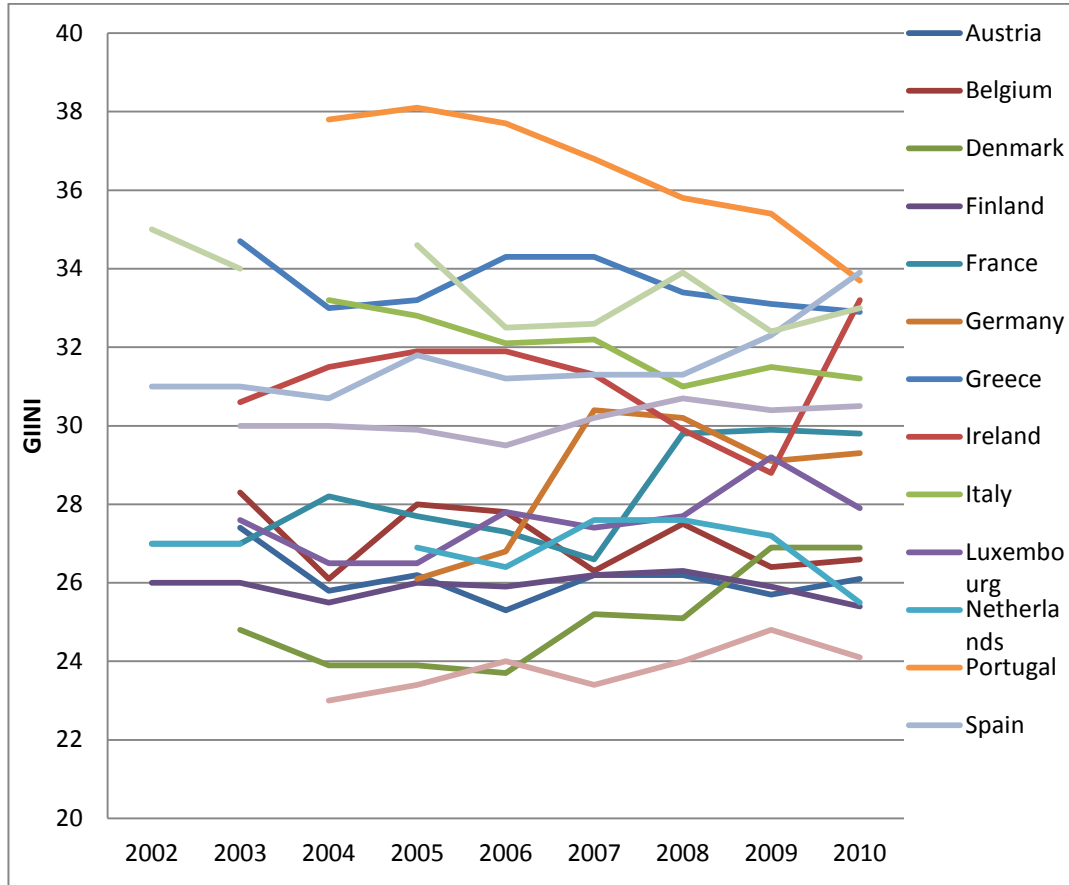
In "old" *Western Europe*, Switzerland has the highest score in diversity (also according to the SDI Index, s. Table 1) but also some of the best scores in governance, global competitiveness, human development and a particularly high level of generalized trust. Also Belgium, the country with the second highest "ethnic fractionalization" index in Western Europe has high scores in all categories. On the contrary, Greece and Italy who are among the most homogeneous countries in W.Europe, have comparatively low scores in all categories. In *Eastern Europe*, Latvia, the fourth most heterogeneous country in this region has remarkably high scores in all categories, where much more homogeneous countries, such as Hungary, and much more Armenia and Albania, have comparatively low scores. However, in Eastern Europe, there are some countries where the multiple negative effects of diversity hypothesis cannot be contradicted, for instance in Moldova and Macedonia FYR. In the *Middle East* region, Turkey is the comparatively most homogeneous country, but human development index is much lower than in culturally pluralistic Lebanon, while governance score, competitiveness and especially generalized trust are significantly lower than in Israel. Finally, in *Northern Africa*, ethnically more "homogeneous" Tunisia, which is also the

smallest country in this region, has comparatively better scores in institutional and economic performance

Cross-nation comparisons in each one of the four aforementioned indexes can also be useful. Concerning *generalized trust*, in “old” Western Europe the lowest scores are in Greece, France and Italy, while trust scores are very high in Scandinavia, but also high in Switzerland and UK. In Eastern Europe social trust is; generally speaking, lower than in W. Europe but in several Central and East European countries percentages of generalized trust are obviously higher than in many West European countries. This is, for instance, the case in Belarus (35%) Estonia (34%) and Ukraine (31%). In the M.East, ethnically fractionalized Lebanon that experienced decades of civil war has the lowest score of interpersonal trust (6,7%), while ethnically much more homogenous Turkey, which is also a EU candidate country also has a remarkably low score (8,4%) and Israel, despite several experiences of war and terror, show an interpersonal trust score that is more than three times higher than in the other countries of the region. Finally, in N.Africa, the country with the lowest score in ethnic fractionalization, namely Tunisia, has also the lowest score in generalized trust, while its neighbor Morocco, the ethnically more “fractionalized” country in the whole region, has by far the highest score. In overall *governance* performance, the three ethnically most homogeneous countries in W.Europe, that is Greece, Italy and Portugal have three of the four worse scores, while in Eastern Europe the fourth most “fractionalized” country that is Estonia, has the best score in governance and in N. Africa, ethnically pluralist Morocco has the second best performance. In *Global Competitiveness*, there is a similar picture, since more “fractionalized” countries (Switzerland, Belgium, UK, Sweden) have much better scores than the most “homogenous” countries (Italy, Portugal, Greece). Finally, concerning human development, the lowest score in W.Europe belongs to the second most homogenous country that is Portugal, while some of the lowest scores in E.Europe belong to comparatively more “homogeneous” countries (Armenia, Albania).

Another point that is worth seen separately and especially for “old” EU-15 countries because of EU policies and long-term Europeanization effects, is inequality in these EU-15 countries over a period of 9 years. Since cultural diversity and ethnic fractionalization suppose to have negative impact on social cohesion and favor inequalities, it should be tested whether homogenous countries have lower scores of inequality. Data that we used are coming from the World Bank. The World Bank is using the Gini index that measures the extent to which the distribution of income or consumption expenditure among individuals or households within an economy deviates from a perfectly equal distribution (Afonso A, Schuknecht R and Tanzi V 2008). A Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.

**Figure 1 : GINI Index of Inequality in the EU-15 2002-2010**



SOURCE: World Bank

Among EU-15 members, it is obvious that inequality is stronger among the countries of Southern Europe, which are also among the most homogenous countries of the EU. Higher inequality can also be found in Ireland and the U.K. which means that scores of inequality are rather connected to the welfare model in these countries (anglo-saxon, mediterranean welfare models, s. last part of this paper) and probably also to other factors, but certainly not to the degree of cultural diversity in the different countries. For this reason, the assumption that ethnic fractionalization has negative impacts on social cohesion and favors inequalities could not be confirmed among EU-15 members. A finding that is worth mentioning is that there is obviously a trend towards convergence in terms of equality/inequality index in the EU-15 that seems to cease after the global crisis of 2007/08 and the Euro/financial crisis of 2010.

All in all, it seems that drawing a straight line of correlation between “ethnic fractionalization” or “cultural diversity” on the one side and deficiencies in institutional and economic performance, human development and generalized trust, on the other, is more than questionable for the investigated countries. Situation could be different in post-colonialist societies in third world countries, however it is obvious that the doctrine of multiple negative effects of cultural diversity is more than questionable when it comes to European Union, candidate or ENP-countries. On the contrary, there are quite a few countries, both in the EU and among ENP countries, which combine high levels of cultural diversity with high scores in institutional and economic performance, human development and interpersonal trust.

#### 4. TRACING THE ACCEPTANCE OF DIVERSITY

At this point, a further investigation should be made, concerning acceptance of diversity in the societies of different countries. The level of accepting diversity would probably explain whether diversity per se has negative or positive or simply no significant impacts on national performance. More specifically, it should be investigated whether higher performance of some countries which are characterized through ethnic fractionalization is combined to higher tolerance, acceptance and incorporation of diversity. For these reasons, some data concerning seven different measures that indicate *acceptance of diversity* are being presented and evaluated. These measures are:

- Firstly the *Rule of Law*, since this is of particular importance to any kind of minorities. The Rule of Law index shows the extent to which individuals within a society respect property rights, the police and the judiciary system, as well the quality of police and legal safeguards (Data are from 2010 World Bank Governance Indicators, ordinal rating -2 to 2, elaboration by Legatum Institute, 2011).
- Directly connected to the Rule of Law is also *confidence in the judicial system*. A reliable *judiciary* is of particular importance for the protection of minorities and individuals with distinct opinions, attitudes and lifestyles. The question was: Do you have confidence in each of the following or not? How about the judicial system? Percentage which are confident. Data are from 2010 Gallup World Poll, elaboration by Legatum Institute, 2011.
- *Tolerance for Immigrants* obviously is an appropriate measure of public acceptance for diversity. The question was: Is the city or area where you live a good place or not a good place to live for immigrants? Percentage who said yes. Data are from 2010 Gallup World Poll. elaboration by Legatum Institute, 2011.
- *Tolerance for ethnic minorities* is also a proper measure of public acceptance for diversity. The question was: Is the city or area where you live a good place or not a good

place to live for ethnic minorities? Percentage who said yes. Data are from 2010 Gallup World Poll. elaboration by Legatum Institute, 2011.

- *Generalized trust* score refers to percentage of people who answered that “others” their society could be trusted. Percentage of people who trust strangers in a society is obviously a good measure of public acceptance for diversity. Data are from 2010, [Gallup World Poll](#) & [World Values Survey](#), elaborated by the Legatum Institute.
- Concerning values, there is a fundamental dichotomy between *secular-rational values* on the one hand and *traditional values* on the other. This dichotomy reflects the contrast between societies in which religion and traditions are very important and those in which it is not. It replicates the cleavage between societies where traditionalist ideals of an “undying” “sacred” community prevail and societies where rationalist ideals of secular community overcome. A wide range of behavioral orientations are closely linked with this fundamental contrast of values. Societies near the traditional pole emphasize religion, pride on own nationality, respect for authority, familism and obedience. Societies with secular-rational values have the opposite preferences on all of these topics and promote independent thought (Inglehart and Welzel 2005). It is obvious that secular-rational values pave the way for the acceptance of cultural diversity. Data on values (composite index), are from World Values Survey, 4<sup>th</sup> and 5<sup>th</sup> round (2000 and 2006). Although these data were collected in 5-10 years earlier than the rest of the data concerning acceptance of diversity (e.g. tolerance for immigrants), they can be used as an indicator of prevailing orientation within the society in a certain country, since values usually do not change so fast over time.
- Another major dichotomy is between Survival and Self-expression values. Due to unprecedented prosperity in advanced nations priorities gradually shifted from an emphasis on economic and physical security, towards increasing emphasis on subjective well-being, liberty aspirations, self-expression and the quality of life (Inglehart and Welzel 2005). It is obvious that self-expression values promote tolerance and acceptance of cultural diversity. Data on values (composite index), are from World Values Survey, 4<sup>th</sup> and 5<sup>th</sup> round (2000 and 2006). Although these data were collected in 5-10 years earlier than the rest of the data concerning acceptance of diversity (e.g. tolerance for immigrants), they can be used as an indicator of prevailing orientation within the society in a certain country, since values usually do not change so fast over time.

**Table 4: Tolerance and Acceptance of Cultural Diversity: Some Indications**

Country	Rule of	Confidence in the	Tolerance for	Tolerance for	Trust Others	Trad. Rat.	Surv. Self-ex.
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	Law	Judicial System	Immigrants	Ethnic Minorities		Values	Values
Algeria	-0.73	64.70	51.71	28.09	15.80		
Austria	1.76	72.35	62.38	69.38	30.07	0.25	1.43
Belarus	-0.94	56.25	70.45	70.88	35.64	0.89	-1.23
Belgium	1.37	47.04	76.70	75.58	30.61	0.50	1.13
Bulgaria	-0.05	17.10	64.02	69.91	21.08	1.13	-1.01
Croatia	0.22	32.09	63.62	71.84	22.16	0.08	0.31
Czech Rep.	0.96	33.72	56.50	55.48	25.40	1.23	0.38
Denmark	1.87	86.05	85.53	85.51	62.05	1.16	1.87
Egypt	-0.03	50	28.16	39.13	18.21	-1.64	-0.54
Estonia	1.13	50.27	45.26	55.52	34.04	1.27	-1.19
Finland	1.94	69.21	71.22	71.82	58.51	0.82	1.12
France	1.43	57.43	81.09	82.02	19.86	0.63	1.13
Germany	1.63	61.07	78.19	78.68	31.59	1.17	0.44
Greece	0.64	33.92	61.79	54.51	16.46	0.77	0.55
Hungary	0.82	47.96	68.77	64.17	13.32	0.40	-1.22
Iceland	1.72	47.85	88.44	87.94	41.1	0.44	1.63
Ireland	1.71	65.09	85.86	87.10	30.47	-0.91	1.18
Israel	0.83	58.95	38.49	50.06	27.02	0.26	0.36
Italy	0.39	43.23	65.51	65.08	20.71	0.13	0.60
Jordan	0.38	69.88	40.75	29.28	9.56	-1.61	-1.05
Latvia	0.83	31.96	55.24	66.75	13.10	0.72	-1.27
Lebanon	-0.64	31.49	47.37	55.78	6.74		
Lithuania	0.72	18.02	52.92	58.62	25.52	0.98	-1.00
MacedoniaFYR	-0.22	23.41	61.42	58.41	9.13	0.12	-0.72
Moldova	-0.45	37.66	52.92	51.58	12.58	0.47	-1.28
Morocco	-0.16	52.35	46.00	22.34	58.51	-1.32	-1.04
Netherlands	1.78	64.99	85.05	83.82	46.93	0.71	1.39
Norway	1.88	80.59	88.80	86.24	74.2	1.39	2.17
Poland	0.68	58.34	57.50	58.89	25.23	-0.78	-0.14
Portugal	1.04	31.81	84.42	78.67	27.85	-0.90	0.49
Romania	0.10	26.50	60.99	67.94	15.17	-0.39	-1.55
Russia	-0.77	34.91	65.84	62.08	24.69	0.49	-1.42
Slovakia	0.65	30.17	65.21	67.87	21.24	0.67	-0.43

Slovenia	1.11	33.60	60.49	75.35	14.89	0.73	0.36
Spain	1.13	43.01	85.00	80.13	22.44	0.09	0.54
Sweden	1.93	71.12	84.88	85.74	56.14	1.86	2.35
Switzerland	1.75	77.94	74.06	71.36	45.27	0.74	1.90
Syria	-0.47	55.50	75.15	48.09	9.59		
Tunisia	0.22	57	50.94	33.39	14.79		
Turkey	0.12	63.37	52.97	50.47	8.43	-0.89	-0.33
Ukraine	-0.73	18.76	49.42	49.40	30.66	0.30	-0.83
Un. Kingdom	1.71	64.40	79.60	83.88	35.79		

SOURCES: Legatum Institute (*Generalized Trust*, [Gallup World Poll](#) & [World Values Survey](#) 2010), *World Values Survey* (4<sup>th</sup> Round 2000 and 5<sup>th</sup> Round 2006).

Concerning *Rule of Law*, Scandinavian countries show the highest scores, while among *EU countries* the lowest scores are in Bulgaria (-0.05), Romania (0.10), Italy (0.39) and Greece (0.64). Among *EU- candidate countries*, scores are considerably lower (Macedonia FYR -0.22, Turkey 0.12), while in *East European countries* scores are low also in Russia (-0.77) and the Ukraine (-0.73). Finally, in *Southern Neighboring Countries*, scores are higher in Israel (0.83) and lower in Algeria (-0.73), Lebanon (-0.64) and Morocco (-0.16).

There is a similar picture concerning *Confidence in the Judicial System*: Once more, Scandinavian countries (but also Switzerland) show very high percentages of confidence, while within EU members the lowest percentages are in Bulgaria (17,10%) and Lithuania (18.02), while percentages in *candidate countries* are not lower (Macedonia FYR 23.41%, Turkey 63.37%-higher than all Mediterranean EU countries including France). In East European countries, respective percentages are also not lower than in new EU-members (Ukraine is an exception, where only 18.76% have confidence in the judicial system). In *Southern Neighboring Countries* (NC), confidence percentage is very high in Jordan (69.88%- higher than in Finland) and in Algeria (64,70%), while it is also quite high in Morocco (52.35), Syria (55.50) and Tunisia (57). Having in mind the low scores in the rule of law in these countries, there could be an historical-cultural explanation of this high confidence to the judicial system, since also Turkey shows a remarkably high rate of confidence to the judicial system, despite poor performance in the rule of law (s. above).

Concerning *tolerance for immigrants and also tolerance for ethnic minorities* it is quite remarkable that highest percentages in Europe are not found only in Scandinavia, but also in other

EU countries which have *historical experiences with cultural diversity* as former colonialist powers overseas, such as France, UK and the Netherlands, Spain and Portugal. Tolerance is obviously lower in countries that used to be parts of multi-national European Empires (Bulgaria, Greece, Poland etc.), while tolerance towards immigrants is higher than tolerance towards own “ethnic” minorities in countries where ethnic minorities for historical, political and other reasons are perceived as a “threat” (Algeria, Morocco, Jordan, Syria, Tunisia, Macedonia FYR, Portugal, Spain and Greece).

As already mentioned elsewhere, *generalized trust*, a significant indicator of tolerance for strangers and cultural diversity in general is very high in Scandinavian countries, but also in Switzerland and the UK. Generally speaking, there seems to be a *North/South divide concerning interpersonal trust* in Europe.

Concerning *values*, it has been argued (Inglehart and Welzel 2005) that in the course of human development there is a “Maslowian” (Maslow 1943) value change progressing from constraint to choice. There is a phased process in which rising level of existential security and autonomy leads to an increased emphasis on rational-secular and self-expression values. During the industrialization phase of development, individuals would tend to emphasize rational-secular values, while self-expression values would overcome during the postindustrial phase. Growing prosperity is offering people more action resources (more material means, higher intellectual skills, wider social connectivity) and individuals experience their lives as safe, secure and self-directed. People perceive room to relieve from unchosen community and unfold their creative human potentials. Since people tend to value the choice they are capable to practice, with growing prosperity there will be a rise of *secular-rational* view on *community ties* on the one hand and a rise of *self-expressive* view on *individual potentials* on the other. Misery would lead people to a diametrically opposed direction, since less action resources would make individuals stick on traditionalist community ties and recede to conformism and survival attitudes. The two dimensions of traditional versus secular-rational and survival versus self-expression values would explain more than 70 percent of cross-cultural variance on scores of more specific values ((Inglehart and Welzel 2005).

The rise of self-expression values strengthens democratic norms and promotes effective democracy, implying a positive relationship between self-expression and liberal political institutions. Furthermore, a positive feedback between democratic institutions and economic progress is anticipated. Thus the human development theory describes change in four state variables—economic progress, rational values, self-expression values, and formal democracy (Welzel, Inglehart & Klingemann 2003). Secular and self-expression values, as already pointed

out, tend to accept and incorporate diversity, whereas traditionalist and survival values tend to do exactly the opposite.

Among the different countries, most Scandinavian countries show high scores both in *rationalist-secular* (Sweden 1.86, Norway 1.39) and *self-expression* (Sweden 2.35, Norway 2.17, Denmark 1.87) values. It is worth mentioning that in many former communist countries, rationalist-secular values are comparatively strong (1.13 in Bulgaria, 1.23 in the Czech Republic, 1.27 in Estonia), perhaps also due to the secularist and internationalist ideology of the communist regimes. On the contrary, rationalist-secular values are not particularly strong in some countries where Catholicism (-0.91 in Ireland, -0.78 in Poland, -0.90 in Portugal) maintains a significant influence and, even less, in Islamic countries (-1.64 in Egypt, -1.61 in Jordan, -1.32 in Morocco and -0.89 in “secularized” Turkey). *Self-expression values* are strong in Belgium, France and Ireland but also remarkably widespread in Southern Europe (0.55 in Greece, 0.60 in Italy, 0.54 in Spain and 0.49 in Portugal), while the picture is quite different in Eastern Europe where survival values seem to prevail (-1.01 in Bulgaria, -1.19 in Estonia, -1.22 in Hungary, -1.27 in Latvia, -1.28 in Moldova, -1.55 in Romania, -1.42 in Russia, -0.83 in Ukraine). It is obvious that economic situation in Eastern Europe in combination with the legacy of authoritarian and collectivistic spirit of the communist regimes in the past do not favor proliferation of self-expression values. Survival and conformist values also prevail in EU-candidate (-0.33 in Turkey, -0.72 in Macedonia FYR) and in most of the Southern ENP countries (-0.54 in Egypt, -1.05 in Jordan, -1.04 in Morocco), under the exception of Israel ((0.36).

All in all, concerning accepting of cultural diversity, national histories and contexts seem, once more to be the most important factor. And, once more, wider geographical and historical regions (e.g. the Balkans, Eastern Europe, Central Europe, Scandinavia, Catholic-Mediterranean legacies, Communist legacies etc.) include significant similarities across their countries, even where important cleavages existed during the last decades (e.g. in the Balkans, between the Baltic Sea and Scandinavia, in Central Europe etc.).

## **5. STATE INSTITUTIONS, TRADITIONS AND THE ACCEPTANCE OF DIVERSITY**

In the previous sections, aspects and scales of diversity in various countries have been analyzed, presumptions about negative impacts of diversity on national performance have been tested and a set of social attitudes, value orientations and perceptions in different countries that indicate tolerance towards diversity have been examined. It became clear that some countries obviously

seem more able to accept and incorporate diversity. According to actor-centered new institutionalism (Mayntz R and Scharpf F. 1995), this “openness to diversity” is connected to certain institutional factors that means to institutional contexts in each country, but also to behavioral factors. Under today’s contexts and circumstances, acceptance of diversity is certainly a prerequisite for European Integration and European competitiveness in today’s Globalization era. Openness towards diversity is, moreover, a prerequisite for social cohesion both cross-country and cross-region wise in the EU as well as inside and across EU- neighboring countries and their region. In this part the review of institutional contexts will be restricted to the EU-15 members that followed the Europeanization path for a longer period (s. also the previous part and Figure 1 concerning convergence of EU 15 in terms of inequality) and have longer traditions as democratic states.

In the Literature, *institutional context of tolerance for ethnic minorities* has been examined by Weldon (2006) who made a comparative, multilevel analysis of Western Europe, focusing on citizenship that has emerged as an important analytical tool for understanding interethnic group relations. Citizenship designs boundaries of membership within a polity and between polities, it defines how the benefits and burdens of membership should be allocated and how the identities of members should be comprehended and accommodated (Aleinikoff and Klusmeyer 2001). Weldon adopts a pattern of three ideal citizenship regime types (Greenfeld 1999) the *collectivistic-ethnic*, *collectivistic-civic*, and *individualistic-civic*. The first one (collectivistic-ethnic) is based on the assumption that the world is primordially, divided into objectively different *ethnic* units, whereas *ethnicity* underlies national divisions and gives rise to national identities. The nation-state is understood in ethnically exclusive terms. The second regime type (collectivistic-civic) also called the “assimilationist” or “republican” model, shares the view that the nation-state is a collective entity, but it rejects the notion that ethnicity is its defining feature. Instead, it defines the nation-state in political and secular terms, and citizenship means being loyal to the nation as a *political* community (Weldon 2006). Minorities are then expected to relinquish their cultural traditions and assimilate into the majority culture. The third one (individualistic-civic), also termed as the “pluralist” or “civic pluralism” model, follows the *jus soli* citizenship principle while it accepts multi-culturalism and regards ethnic and cultural orientation as a personal choice. Minorities are granted citizenship and equal political rights, while being allowed to maintain their distinct cultural traditions. Concerning *tolerance*, Weldon distinguishes between *political* and *social* tolerance. The first one refers to basic political liberties, while the second one refers to the explicit demonstration of cultural difference and its’ acceptance of this by the native or majority population. Weldon hypothesized (and empirically confirmed) that collectivistic-ethnic countries are both politically and socially non-tolerant to diversity, while collectivistic-civic countries are politically tolerant and socially not tolerant and, finally individualistic-civic countries are both

politically and socially tolerant. Gibson has pointed out (1992), that cultural conformity and intolerance lead to multiple constraints on individual political freedoms.

*Citizenship regime* is an important element of *distinct state traditions* which are also characterized through state-society relations, form of political organization, basis of policy style and form of decentralization (Loughlin I and Peters B.G. (1997). In “old” Europe (that means Europe without the “New Democracies” of Central and Eastern Europe), Loughlin and Peters (1997) categorized four sorts of state traditions:

- The *Anglo-Saxon* state tradition: characterized through pluralistic state-society relations, individualistic-civic citizenship regime, unitary state with limited regionalism/federalism, an incrementalist policy style, local government and devolution of power as form of decentralization
- The *Germanic* state tradition: characterized through organicist state-society relations, mostly collectivistic-ethnic citizenship regime, integral/organic and federalist political organization, a legal corporatist policy style, cooperative federalism as form of decentralization
- The *French/Napoleonic* state tradition: characterized through antagonistic state-society relations, mostly collectivistic-civic citizenship regimes, Jacobin “one and indivisible” political organization, a legal technocratic policy style and a regionalized unitary state as form of decentralization
- The *Scandinavian state tradition*: characterized through organicist state-society relations, individualistic-civic citizenship regimes, a decentralized unitary form of political organization, a consensual policy style and strong local autonomy as form of decentralization.

The new democracies of Central and Eastern Europe cannot really fit into these categories, although their pre-communist state traditions included particular ties to one of these traditions (e.g. Poland and Romania to the French Tradition, Hungary to the Germanic Tradition etc.). Anyway, even in “old” Western Europe these categories of state traditions are not clear cut, moreover “hybrid” cases (e.g. Spain after 1978 and Belgium after 1988) have emerged. Different elements of state traditions can be expected to encourage or discourage the acceptance of diversity. For instance, it can be expected that pluralistic state-society relations (in the anglo-saxon state tradition) would favor acceptance of diversity and the same could be the case, when organicist state-society relations in combination with an individualistic-civic citizenship regime exist (in the Scandinavian state tradition). On the other hand, antagonistic state-society relations

and centralist state organization of the “one and indivisible” nation in the Napoleonic state tradition is obviously not encouraging acceptance of diversity.

Apart of these distinct state traditions, theory also addressed the question of distinct *welfare regimes* (Esping-Andersen, G. 1990). The originally three categories of Esping-Andersen have been further elaborated, modified and reviewed by several scholars (Arts and Gelissen, 2002). Today, four welfare state traditions (or models) can be distinguished that, however, cannot include the new democracies of Central and Eastern Europe (Sotiropoulos, Neamtu, Stoyanova 2003):

- The *Anglo-Saxon welfare model* (UK, Ireland) is also called the “residual welfare model” and is characterized by selectivity. This model features a lower level of expenditures than the other ones. Its main particularity is its social assistance of last resort, while active labor market policies are important and subsidies are directed to a higher extent to the working-age population and to a lower extent to pensions.
- The *continental welfare state* (Belgium, France, Germany, Luxembourg, Netherlands, Austria) is characterized by the strategy of “paying off” social problems. The compensatory measures are predominant. This model is based on the principle of “security” and includes subsidies which are not conditioned to employability
- The *Mediterranean welfare tradition* (Italy, Spain, Portugal, Greece) is characterized by a “rudimentary welfare state”, with a strong internal polarization in social benefits. There is a higher segmentation of rights and status of persons receiving subsidies leading to strongly conditioned access to social provisions. There is a class of “hyper-protected individuals” (white-collar workers), but also a large number of unprotected individuals (irregular workers, young people and the long-term unemployed). The main characteristic of labor market policies is a rigid employment protection legislation and a frequent resort to early retirement policies as a means to improve employment conditions. Deficiencies of welfare state are often compensated through family networks of assistance (Rhodes M. 1996).
- The *Scandinavian welfare model* (Sweden, Denmark, Finland), where the state is in charge of financing and organizing the social benefits for the citizens and the welfare model is accompanied by both a broad basis of taxation and a high taxation burden, while public employment rate is very high. This model has a more simple organization than the other European countries because most of the welfare tasks are carried out by the state and the local authorities and it is less dependent on individuals, national welfare organizations, families or churches. This model holds the highest level of social insurance. Its main characteristic is its universal provision nature which is based on the principle of “citizenship”. Therefore, there exists a more generalized access, with lower conditionability, to the social provisions. As regards labor market, these countries are

characterized by important expenditures in active labor market policies whose aim is a rapid reinsertion of the unemployed into the labor market.

These different European welfare state models reflect longstanding traditions and socio-economic peculiarities, while they also seem to partly correspond to the aforementioned *state traditions*: Indeed, the Scandinavian welfare model corresponds to the Scandinavian state tradition and the Anglo-Saxon welfare model to the Anglo-Saxon state tradition. The Mediterranean welfare model corresponds to the aforementioned Napoleonic state tradition (under the exception of France), while the Continental welfare model (again under the exception of France) corresponds to the Germanic state tradition. Once more, the Scandinavian welfare model and the Scandinavian state tradition seem to be more capable to incorporate diversity, since they tend to restrain social segregation and exclusion. Also the pluralist and individualistic-civic Anglo-Saxon state and citizenship tradition in combination with the Anglo-Saxon welfare model which emphasizes employability for everyone seem to be open to diversity. On the contrary, the Napoleonic state tradition in combination with the Mediterranean welfare model (which excludes France from this group of countries) seems to be the least open to diversity, given the segmentation of social rights, rigid employment protection legislation and strong familism.

Apart from state tradition, welfare regimes and institutional settings, also the established national political culture and the distinctive national democratic traditions can be important for the incorporation of cultural pluralism and diversity. A political culture can be ([Lijphart, 1999](#)) coalitional or contradictory, a democratic tradition can be aggregative (majoritarian or pendulum Democracy) or integrative (consensus or non-majoritarian) (March and Olsen, 1989). Within a democratic system with contradictory culture and an aggregative/majoritarian tradition, political competition for power is principally open, but exercise of power and decision-making is mostly exclusive (“Westminster democracy”, “winner takes it all” system). Then again, in a democratic system with coalitional political culture and an integrative/consensual tradition, not only political competition for power is open, but also exercise of power and decision-making is mostly open and inclusive. It seems that countries where a coalitional political culture and an integrative tradition prevail, do better in terms of economic performance and good governance (s. above, also World Economic Forum 2011, World Bank 2011). These are countries where inclusive political action seems to integrate diversity, avoiding social fractionalization and promoting social cohesion, sometimes further enhanced through re-distributive policies that restrain inequalities and strong welfare systems (Esping-Andersen, 1990, Sellers, J. M. and A. Lidstrom, 2007). Among the EU-15, countries where social acceptance of diversity (s. previous part) has been found to be comparatively higher are characterized into concrete Welfare Models and State Traditions, Political Cultures and Citizenship Regimes, as the following table is demonstrating,



**Table 5: Political Cultures and State Traditions, Citizenship Regimes and Welfare Models in EU-15**

<b>Country</b>	<b>Political Culture</b>	<b>Citizenship Regime</b>	<b>Welfare Model</b>	<b>State Tradition</b>
<b>Austria</b>	coalitional	Collect.Ethnic	Continental	Germanic
<b>Belgium</b>	coalitional	Collect.Ethnic	Continental	Hybrid
<b>Denmark</b>	coalitional	Collect.Civic	Scandinavian	Scandinavian
<b>Finland</b>	coalitional	Individ.Civic	Scandinavian	Scandinavian
<b>France</b>	contradictive	Collect.Civic	Continental	Napoleonic
<b>Germany</b>	coalitional	Collect.Ethnic	Continental	Germanic
<b>Greece</b>	contradictive	Collect.Civic	Mediterranean	Napoleonic
<b>Ireland</b>	contradictive	Individ.Civic	Anglo-Saxon	Anglo-Saxon
<b>Italy</b>	contradictive	Individ.Civic	Mediterranean	Napoleonic
<b>Luxembourg</b>	coalitional	Collect.Ethnic	Continental	Hybrid
<b>Netherlands</b>	coalitional	Individ.Civic	Continental	Germanic
<b>Portugal</b>	contradictive	Collect.Civic	Mediterranean	Napoleonic
<b>Spain</b>	contradictive	Individ.Civic	Mediterranean	Hybrid
<b>Sweden</b>	coalitional	Individ.Civic	Scandinavian	Scandinavian
<b>U.K.</b>	contradictive	Individ.Civic	Anglo-Saxon	Anglo-Saxon

According to the last table, *Scandinavian countries* are characterized through coalitional-consensual political culture an individualistic-civic citizenship regime, their distinctive Scandinavian state tradition (including, among other features, a very strong local autonomy) and the Scandinavian welfare model (which seems to be the most successful in terms in reducing inequality, s. Figure 1). Scandinavian institutions and political traditions seem to offer a context that facilitates acceptance of diversity (s. table 4). On the contrary, Mediterranean institutions and political traditions seem to offer, at first sight, a context that would not encourage acceptance of diversity. Mediterranean countries are characterized through a contradictive political culture and a framework of antagonistic relations between centralist state and society. Inequality in the Mediterranean countries reaches the highest scores in the EU-15 (s. above, Figure 1), since there is (under the exception of France) a welfare tradition with a high degree of fractionalization and segregation, privileged regimes for powerful pressure groups and an important role for informal

family networks that counterbalance welfare deficiencies. All in all, contexts of institutions and traditions in the Mediterranean countries do not seem to encourage incorporation of ethnic diversity. However, citizenship regimes in some of these countries (e.g. Spain) and historical contexts in others (e.g. Portugal) seem to encourage acceptance of diversity. Although inequality is high, contexts of institutions and traditions in Anglo-Saxon states seem to offer a framework that encourages the acceptance of diversity, probably through their individualistic-civic citizenship regimes, a welfare model that encourages free access to employment and, last but not least, the historical legacy of the English-speaking world that incorporates a huge spectrum of diversity and cultural pluralism. Finally, the picture of diversity acceptance is quite mixed in continental “rhine capitalist” states (s. table 4), obviously depending on national (historical, socio-economic etc.) contexts including the national political culture (e.g. coalitional and consensual traditions in the Netherlands).

The review of Political Cultures and State Traditions, Citizenship Regimes and Welfare Models has shown that national contexts are obviously important for the acceptance of diversity; however, there seem to be some common institutional and cultural features (s. table 5) that would explain higher acceptance of diversity in certain countries (s. table 4):

- *A coalitional-consensual political culture* that bridges political and social cleavages and discourages polarization and exclusive exercise of power
- *An individualistic-civic citizenship regime* the encourages both political and social tolerance
- *A Scandinavian welfare model* and/or *an Anglo-Saxon welfare model* because they both prioritize *high employment rates and facilitate access to labor market*.
- State traditions including pluralistic (Anglo-Saxon) or organicistic (Germanic or Scandinavian) state-society relations (the latter is mostly combined with strong *local autonomy*).

## 6. CONCLUSIONS

In the European Union, ethnic and cultural diversity, but also pluralism of values and ways of living are increasing and the same seems to gradually, even though asymmetrically, apply for the neighboring countries. The widely accepted assumption that cultural diversity and ethnic fractionalization have negative impacts on institutional and economic performance, human development, social cohesion and generalized trust could not be confirmed in many neighboring countries, candidate countries and new member states, while it certainly could not be confirmed in nearly all EU-15 states. In countries following the Europeanization path for a longer period, in

long-established democracies, in countries with good governance and high institutional performance, *cultural diversity does not seem to have negative impacts*.

*Acceptance of diversity* seems to be higher in countries of good governance and high institutional performance, especially when rational/secular and self-expression values prevail. Also historical legacies and national contexts are important for the way in which different countries deal with diversity.

Institutional settings, political cultures and welfare traditions can also explain higher incorporation of diversity in some European countries. An *individualistic-civic citizenship regime*, *active employment policies*, *open markets*, a *culture of deliberation and consensual practices* can obviously contribute to stronger acceptance of diversity, just as *institutional capacity* and *governance quality* in general are doing. Since the European Union and its' neighbors are not simply willing to incorporate increasing cultural diversity, but also aim at taking full advantage of its positive effects on trade, FDI's and innovation (Ozgen, Nijkamp and Poot, 2011), respective policies should be further developed, from now on further emphasizing on institutional capacities and governance performance.

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# Cultural Diversity, Social Capital and Innovative capacity of Region-Industries

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## **Abstract**

Many studies from innovation management and strategic management have put to light the positive role of social capital (SC) on innovative performance at firm level, firm's unit level, work team level, or even firm's individual members level. However, a review of these studies reveals that 2 different – and potentially antagonistic – aspects of SC are generally mentioned as playing a role in that process: the cohesive aspect (e.g. closure of the network, norms of reciprocity, density of network that eases knowledge diffusion, etc.) and the external range aspect (e.g. bridging positions, diversity of information exchanged, heterogeneity of links between the network's actors, etc.). While many authors have chosen to focus on one or the other aspect of SC in their studies, some have tried to put forth their complementarity (Reagans & Zuckerman, 2001; Tortoriello & Khrackhardt, 2010) and have shown that the effect of "Cultural diversity" on innovative performance is better accounted for through the combination of these two social capital variables. Adopting this bi-dimensional view of SC, we propose to study the impact of SC – and thus of cultural diversity – on innovative performance at a more aggregated level: the region-industry level.

In this paper, we develop a framework to test empirically the relation between SC and innovative performance at this level, in the context of the electric device industry, during the period 1997-2005, for 32 EU regions. We use the OECD REGPAT 2010 database of EPO patents to build each region-industry's network of co-invention relationships between relevant inventors, and to account for region-industry's innovative performance.

## **Keywords**

Cultural diversity, social capital, regional innovation

## **JEL Classification**



## 1. INTRODUCTION

Just like innovation and technical progress in societies have been shown to have a critical impact on countries' economic growth, regional innovation has been shown to have a critical impact on regional growth and employment (see Capello, 2009 for a review). Regions that are highly innovative tend to have more growth and better employment rates.

Moreover, many studies have shown that regional innovation itself is deeply influenced by knowledge production and diffusion (Arrow, 1962; Duranton & Puga, 2001). Hence, knowledge production and diffusion have become important matters of interest throughout the past decades.

While seminal papers of the geography of innovation literature have emphasized the importance of spatial proximity for knowledge diffusion (Jaffe, Trajtenberg, & Henderson, 1993), more recent studies have argued that proximity in social networks is actually the most important aspect of proximity that has to be taken in consideration. Since social networks are bounded in space to a wide extent, then knowledge diffusion also appears bounded in space (Breschi & Lissoni, 2009). But besides space, other types of mechanisms play a role in the formation of social networks patterns. Hence, the importance of such mechanisms in the diffusion of knowledge has also been underlined: Social or ethnic proximity (Agrawal, Kapur, & McHale, 2008), institutional proximity (Bell & Zaheer, 2007), friendship (Bell & Zaheer, 2007), inter-firm cooperation (Powell, Koput, & Smith-Doerr, 1996), or co-inventorship (Breschi & Lissoni, 2009) are some of the mechanisms that contribute to shaping social networks, and thus, that contribute to shaping knowledge diffusion.

More generally, these mechanisms reflect a fundamental property of social networks, put to light since the 50's by Merton & Lazerfeld : homophily. The concept of homophily expresses the idea that the actors of a social system are naturally more prone to form links with actors of the "same kind" as themselves. This property has been observed in many different settings and for many different definitions of the notion of "same kind" (McPherson, Smith-Lovin, & Cook, 2001) depending on the type of relationship studied. For example, in the case of knowledge exchange relationships, the fact of "living in the same area" (spatial proximity), "belonging to the same social or ethnic group" (social/ethnic proximity), "working in the same organization or on the same project" (organizational proximity, co-inventorship, inter-firm cooperation), specializing in the same industrial or technological sector (MAR conception of knowledge spillovers, for Marshall [1980] Arrow [1962] and Romer [1990]), can be considered as different aspects of the notion of "same kind".

These different types of proximities can also be defined in terms of Culture: national/regional/local culture, ethnic culture, organizational culture, professional culture. Hence, the sociological concept of homophily in social networks is closely linked to the idea that people are naturally more prone to form links with people of their own “culture”. The fact of sharing values, norms, and references associated with a common culture facilitates knowledge exchange. It provides a common cognitive basis. However it also reduces the scope of knowledge that can be reached through the interaction, since there is redundancy in the collective knowledge. Thus, one can assume that *cultural distance* between people that are in contact, (1) is not as frequent as *cultural proximity* between people that are in contact, (2) makes knowledge exchanges more difficult because of a lack of common cognitive basis, but (3) allows each people to reach a wider scope of knowledge. Starting from this statement, one can wonder about the overall impact that cultural diversity in a social system can have on its collective knowledge production.

And this question is relevant today more than ever, since throughout the past half-century, the globalization of the economy has yielded tremendous changes that have contributed to increase the level of cultural diversity in many places, and in many social systems. Hence, over this period of time, the issue of the impact of cultural diversity on different economic outcomes has become increasingly important for policy makers and managers, as well as for scholars. In particular, many authors have underlined the beneficial effect of cultural diversity on creativity and innovation in cities (Florida R., 2002), firms (Cox & Blake, 1991; Vedina, Fink, & Vadi, 2007), or firm’s units (Ely & Thomas, 2001). However, the beneficial effect of cultural diversity on innovation does not seem to be automatic. Indeed some authors have also shown that in certain contexts, no significant effect on innovative performance is associated with cultural diversity (Reagans & Zuckerman, 2001); several others have even highlighted the potential negative impact of cultural diversity on work group’s general performances if it is not accompanied by specific diversity management (Ely & Thomas, 2001; Cox & Blake, 1991). Hence, for firms and work groups, the positive effect of cultural diversity on innovation appears to be contingent on contextual factors, in particular on whether specific diversity management is implemented or not. At regional and national level, to our knowledge, no studies have directly addressed the issue of the impact of cultural diversity on innovation. Hence, even though one can extrapolate from the findings at firm level and work group level that the impact at regional level is probably also contingent on contextual factors, we know nothing so far about the nature of these contextual factors, nor about the way they influence the relationship between cultural diversity and innovation.

Following Reagans and Zuckerman (2001), we believe that an important step in assessing these contingent factors consists in studying directly the impact on innovation of two network variables

on which Cultural Diversity has an impact, rather than studying the gross impact of cultural diversity. These two variables are *social capital* variables, and they correspond to two different aspects of the literature on social capital: *bonding social capital* and *bridging social capital*.

Initially centered on individuals (Bourdieu, 1980; Coleman, 1988), the concept of social capital has been extended to communities (Coleman, 1988), firm level (Nahapiet & Ghoshal, 1998), country level (Putnam, 2000) and more recently, region level (Akçomak & Weel, 2009). Social capital refers to the “collectively-owned capital” that an actor (individual, firm, community, region, country, etc.) can use individually to accomplish social and economic actions. Nahapiet & Ghoshal underline the fact that “much of this capital is embedded within networks of mutual acquaintance and recognition” (1998, p. 243). Thus, an actor’s “position” in a social network, its “role” in this network, the cohesive subgroups to which it belongs, the types and amount of links that it has, the attributes of its partners, etc. are several aspects of social capital that witness for differences between actors in terms of capacity to use the collectively-owned capital. Thus, they provide potential explanations of the variance in behavior and outcomes between actors. In this paper we identify two broad aspects of social capital: cohesiveness and external range. While the earlier has been studied extensively in the social capital literature, the latter is derived from Burt’s notion of structural holes and is also closely related to the “diversity” literature. Indeed, Reagans and Zuckerman (2001) show that the impact of diversity on R&D team’s innovative performance is usually ambiguous when it is studied in a uni-dimensional way. Rather, one should consider the impact of diversity on 2 distinct social capital variables – cohesiveness and heterogeneity of links – since these impact are opposite. Following Reagans & Zuckerman’s idea we aim at studying the impact of cultural diversity at region-industry level on innovative capacity, through a bi-dimensional approach of social capital.

At country and region level, because of the difficulty to collect social network data for large groups, social capital has been studied mostly through non-network approaches: analysts have used wide survey data on countries’ general level of interpersonal trust (Knack & Keefer, 2001), or countries’ and regions’ general level of associative activity (Putnam, 2000), or on archive data like regions’ date of emergence of institutions (Akçomak & Weel, 2009) to assess countries’ and regions’ level of social capital. To our knowledge, network approaches of social capital have been limited to groups, work teams, organizations, communities and inter-firm networks so far.

However, besides the technical limitation due to data collection, we believe that network approaches of regional social capital can be a very useful tool for explaining the heterogeneity between regions in terms of innovative capacity. Indeed, although structural aspects of social capital cannot be studied via survey or archive approaches, several researches suggest that such

structural aspects are responsible for important differences between regional innovative capacities. A. Saxenian's compared analysis of two very important American regional industrial clusters specialized in high-tech (Silicon Valley on the one hand, and route 128, in the Boston region, on the other hand) between the 80's and the 90's, is probably one of the most striking illustration of this point (Saxenian, 1994). Indeed, the author shows that although these clusters presented similar profiles in the 80's and were both flourishing at this time, throughout the 90's, Silicon Valley became one of the most innovative district in the world, while route 128 slowly declined and disappeared. The author explains these different destinies by cultural and structural differences that existed from the beginning between the two regions in terms of average firm size, but also in terms of inter-firm cooperation, knowledge exchanges between people, and norms of cooperation. This original case study research gave rise to an extensive literature dealing with structural aspects of inter-firm networks and their consequences for firms (Ahuja, 2000), and also for industries (Powell, Koput, & Smith-Doerr, 1996) innovative capacity. However, no research to our knowledge has studied the impact of co-inventor network of a specific industry, in a specific region, on the innovative capacity of this region-industry. This is what we will aim at doing throughout this paper.

More precisely, the aim of this paper is to address this question: do structural aspects of a region-industry's social capital have an impact on its innovative capacity? And further, what aspects of such social capital have an impact on industry-region's innovative capacity?

Section 2 presents the aspects of social capital that have been shown to be beneficial for innovation or knowledge production in the literature. Section 3 describes the network framework we use to evaluate social capital. In section 4, we present and define the way we have addressed the question of individual's cultural attributes. In section 5 we present our empirical framework, including the data we have used, our variables, our model and the results of our empirical inquiry. Finally section 6 discusses the findings and concludes.

## **6. THEORETICAL FRAMEWORK**

At regional level, like we mentioned earlier, it is very difficult at present time to collect sociometric data for each member of the regional population and to reconstitute the social network of a region. But structural approaches traditionally study the structural properties of social systems by reducing the network. This is done by focusing on a specific category of actors that is thought to have a particular role in the phenomenon studied, by focusing on a type of relationship

specifically relevant for the phenomenon studied, and by specifying properly the frontiers of the system studied (Lazega, 2007).

Following the geography of innovation literature we consider that patent inventors constitute a category of actors that has a critical importance in regional knowledge production processes. Furthermore, following Breschi & Lissoni (2009), we believe that co-inventorship ties witness for a specifically important channel of knowledge diffusion, since in most cases, collaboration on a patent application implies a significant amount of time spent together and a significant amount of knowledge exchanged. As far as the frontiers of the system are concerned, we restrict regional networks of co-inventors solely to the inventors who live in the region studied (i.e. whose personal address is in the region), or who have lived in the region before.

Defined in these terms, we consider that the co-inventor network of a region is a satisfying reduction of this regions' social network of relationships between residents, as far as knowledge diffusion and innovative capacity are concerned. Hence, we propose to examine the impact on regional innovative capacity of several aspects of regional social capital, by using these reduced regional networks.

### **Cohesiveness**

The first structural aspect of social capital that has been emphasized by the literature is closure (Coleman, 1988). Closure is the property of a network that features a significant amount of "closed triads" of actors, i.e. triads of actors in which a link exist between all 3 actors. The extreme form of closed network is the "clique", in which all triads are closed (i.e. all possible links exist).

The degree of closure of a network reflects a form of cohesiveness of the social system embedded in it. Coleman shows for example that in a community, the closure of a network of relationships that includes high school students and their parents has a significant positive impact on the formation of human capital (i.e. a negative impact on the rate of high school dropouts). The reasons of this impact are two-fold: first network closure helps to enforce the norms and values established by the system (if A has an obligation towards B, A will be more incented to fulfill this obligation if both A and B know a same third party C, than if A and B have no other common contact); and secondly, collective action is facilitated by such structure.

But as far as innovation is concerned, the impact of closure on innovative capacity is not simple. Indeed, by essence, innovating consists of going out of the "normal" way, leaving the track, and

not necessarily respecting the norms. Thus, it is not surprising to observe that in innovation processes, pioneers are often marginal individuals, deviant people (Alter, 2000). Closure can then become a burden for innovation if it constrains the creativity of individuals, and individuals can have a better innovative capacity when they are peripheral to the network, or when they bridge separated parts of a network (Burt, 1992; 2004). This point of view regarding the link between closure and innovation has been dominant in the 90's.

However, more recently, researchers have started to highlight the importance of several cohesive aspects of social systems for innovation processes. For example, the positive role for firms' exploratory innovation of closure in their ego networks of alliance has been put forth (Phelps, 2010). Also, while a bridging position is traditionally associated with more creativity and innovativeness, Tortoriello & Krackhardt have underlined the fact the positive effect of trans-organizational bridging ties for scientists and engineers' capacity of innovation, is actually contingent on the fact that these bridging ties are part of a clique or not, i.e. if these ties are parts of a closed triad or not (Tortoriello & Krackhardt, 2010). The positive role of a system's cohesiveness on innovation has also been addressed through the concept of network density<sup>9</sup>: Reagans & Zuckerman note that the innovative productivity of R&D teams is enhanced by the density of their networks of communication relationships (Reagans & Zuckerman, 2001).

Based on these findings, we propose that the degree of cohesiveness of a region's co-inventor networks is positively associated with its innovative capacity. Let us note from now on, that we expect regional co-inventor networks to be sparse (weakly cohesive), because patents applications and publications represent only a very small portion of the actual knowledge exchanges between individuals and even between inventors. Also, we expect them to be clustered, in particular along organizational lines, since the patenting processes and the collaborating processes between inventors are not totally unconstrained. On the contrary, co-inventorship between individuals from different organizations is usually controlled and occurs most of the time in the frame of a contractual agreement between firms.

However, like illustrated by A. Saxenian (1994), in some regions, firms are more prone to create such agreements, inventors are more mobile between firms, firms collaborate more easily with individual inventors or public institutions (e.g. universities), or even, firms have more interest in

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<sup>9</sup> Network density is simply calculated as the number of existing links in the network divided by the number of possible links. If the links are weighted, then density is calculated as ratio between the sum of actual weights and the sum of all possible maximum weights. Thus, density is a slightly different concept from closure, but both of them reflect a form of cohesion in a social system. For this reason, density is sometimes used as a proxy for closure since it is much easier to account for than closure itself.

the regional innovation and development, than in other regions. Our hypothesis is that all these differences result in social capital differences, and more specifically, in “cohesive” differences between regional co-inventor networks of an industry. This aspect of social capital is usually referred to as “bonding social capital”.

“Closure” *per se* is difficult to measure in the regional networks we observe (because these networks are weakly connected, i.e. they are fragmented in numerous components). Thus, we retain the measure of “density” of these regional networks as a proxy for cohesiveness, like illustrated by Reagans & Zuckerman’s study (2001) at work team level. Hence our first hypothesis is:

*Hypothesis 1: the density of the co-inventors network of an industry-region is positively correlated with the capacity of innovation of this industry-region.*

### **Heterogeneity of links / external range**

Although *Cohesiveness* was the first social capital aspect to appear in the economic literature, the concept of *Brokerage* (or bridging) soon became prominent in this literature, and more specifically in the innovation literature. Ronald S. Burt was the instigator of this research trend. Indeed, in his book called *Structural Holes: the social structure of competition* (1992), he pointed to the fact that actors who occupy “broker” or “bridging” positions in networks (complete networks or ego networks) between sub-networks otherwise separated by *structural holes*, benefit from a specific advantage that they can exploit in different competitive games. This advantage comes from the fact that they have access to different pools of resources (information, knowledge, advices, etc.) that are not brought together usually.

Following this seminal work, numerous researches have focused on broker’s advantage for different types of actors and in different settings. For instance, the advantage associated with a bridging position in terms of innovative capacity has been put forward for firms in alliance networks (Ahuja, 2000), for managers in knowledge sharing networks (Burt, 2004), as well as for inventors in knowledge sharing networks (Tortoriello & Krackhardt, 2010).

At this point, it is important to underline the fact that a broker position is beneficial for the actor that occupies this position in the network, but brokerage is not necessarily beneficial for the social system as a whole. It is an aspect of one actor's social capital, rather than an aspect of the group's social capital.

Of course, like illustrated by G. Ahuja's (2000), a group (e.g. a firm) can be studied as an entity embedded in a network of relationships with other entities of the same kind (e.g. alliance network between firms). In this case, the group's social capital can be assessed by its degree of bridging in the network. But, this type of analysis remains focused on the single actor's social capital, rather than on the "network's" social capital. The only thing that changes is the level of analysis. Despite the great interest of this type of analysis, the impact of brokerage inside the system, on the system's social capital is not evaluated. For example, determining whether a system characterized by a cohesive network without structural holes is more efficient than a system characterized by several subparts (clusters) bridged by brokers is a question that cannot be answered through the brokerage approach.

However several researches have tackled this issue indirectly, through different approaches. A first approach consists in studying the impact of the network's level of clustering, on the system's performance. The concept of clustering is linked to the concept of structural holes. The presence of clusters, or "cliques"<sup>10</sup> in a network, indicates the fact that subparts of the complete network are very cohesive, and rather disconnected from one another. This implies that there exist structural holes between these subparts. And since brokerage can be observed only in the presence of structural holes, the presence of brokers inside a network implies that the network is clustered.

However, although brokerage necessarily implies clustering, clustering doesn't necessarily imply brokerage. In fact, although these concepts are highly linked they are still different.

Another way of studying the impact of brokerage on the network's social capital is the concept of heterogeneity of links (or external range). This concept is an extension of the "diversity" studies. Indeed, a wide array of research has studied the impact of diversity on innovative performance or knowledge diffusion, in the fields of economics (Jacobs, 1969; Davis, 2009; Florida R. , 2002) as well as management (Ely & Thomas, 2001; Vedina, Fink, & Vadi, 2007).

In terms of network analysis, the idea behind these diversity studies can be translated as follows: bringing together diversified actors is assimilated to bringing together members of different social sub-networks that do not usually meet each other and do not usually exchange much knowledge

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<sup>10</sup> Originally, a clique is defined as



with one another. Hence diversifying actors implies creating bridges between these sub-networks, and further, implies a widening of the array of resource available to the system as well as a fostering of new ideas thanks to the confrontation of different views.

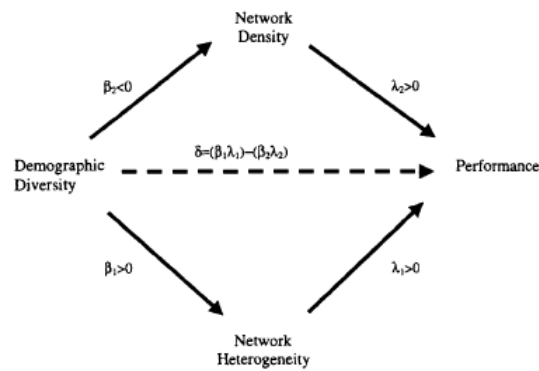
However, several criticisms have been formulated towards this type of study. The first criticism concerns the assumption that actors that have different individual attributes necessarily belong to different sub-networks. Despite the fact that homophily (i.e. the natural preference of actors to form links with individuals of the “same kind” as themselves) is one of the most regularly observed property of social networks (see *McPherson et al. [2001]* for a review of the concept of homophily in social networks, for different types of individual attributes and in different settings), this property is observed for different attributes depending on the settings and at different levels of intensity. Hence, ideally, this type of approach would request to use preliminary sociological investigations that identify the individual attributes that are the most subject to homophily in the socio-cultural context of the system studied. This is what Vedina, Vadi & Fink (2007) do for example, in their study of the impact of value diversity on innovativeness in the context of the Estonian society. Indeed, the first part of their paper is dedicated to a sociological and historical analysis of the Estonian society which explains how and why Estonian and Russian people living in Estonia share different sets of values and thus can be considered as different subgroups.

A second criticism of diversity studies assesses that bringing together diversified people doesn't necessarily imply creating bridges between them. Actually, in many cases, the global homophilic patterns of higher level socio-cultural settings tend to be reproduced in smaller scale systems. For example, diversity studies suggest that diversity policies in firms or work teams must be accompanied by specific actions of diversity management in order to create links between diversified workers rather than conflicts and fragmentation (Ely & Thomas, 2001).

In this perspective, some authors have proposed that evaluating the degree of bridging between diversified actors in a system rather than the gross diversity amongst actors of the system, is an interesting measure of the way individual actor's brokerage influences the group's social capital (Reagans & Zuckerman, 2001). This aspect of social capital is referred to as *bridging social capital*, and has been measured by the variable “*heterogeneity of links*” (or “*external range*”) (Reagans & Zuckerman, 2001).

More generally, Reagans & Zuckerman show that the impact of “gross diversity” on innovative capacity is alternatively considered by scholars as positive (“optimistic view”) or negative (“pessimistic view”). And they propose that the ambiguous effect associated with “gross diversity” actually results from the fact that “gross diversity” has two opposite impacts on the two social capital variables discussed above: on the one hand, a negative impact on the “cohesiveness”

of R&D team’s network (measured as network density), and on the other hand, a positive impact on the “external range” of these teams. Since both variables have a positive impact on innovation, the global effect of cultural diversity on innovation is unclear, and depends on the dominant social capital variable (figure 1 below, taken from *Reagans & Zuckerman [2001]*, illustrates the main point of their article).



We believe that similar assertions can be formulated at a region-industry level: The fact that inventors of a specific region-industry are diversified (i.e. culturally diversified population) doesn’t necessarily imply that these actors will create bridging ties between one another<sup>11</sup>. Hence, measuring the extent to which diversified actors of a region-industry are able to form links between one another is an interesting way of measuring an aspect of a region-industry’s social capital derived from individual actor’s brokerage (Of course, like we mentioned, a preliminary analysis of the salient individual attributes that should be used to assess diversity is necessary). Thus, our second hypothesis is:

*Hypothesis 2: the external range of the co-inventors network of a region-industry is positively correlated with the innovative capacity of this industry-region.*

Note that this hypothesis is subject to controversy. In particular, two different views on the impact of knowledge spillovers oppose. On the one hand, following the seminal works of Jane Jacobs (1969), many scholars have shown that cross-sectoral diversified spillovers are beneficial to innovation and knowledge production. This view is totally coherent with the Hypothesis 2 of this paper presented above. However, on the other hand, other scholars assert that specialized knowledge spillovers are an important driver of knowledge production and innovation. This view

<sup>11</sup> Classical social mechanisms such as urban segregation, ethnic/cultural comunitarism, as well as classical industrial mechanisms such as technological/sectoral clustering, are good illustrations of this point.

is usually referred to as MAR spillovers, named this way after A. Marshall (1890), K. Arrow (1962) and P. Romer (1986) who have defended this view over time, for more than a century,. The evaluation of this hypothesis will thus be of particular interest.

Finally, following Reagans & Zuckerman's view of network based social capital's impact on R&D team's innovative capacity, let us add that the main effect expected from the 2 social capital variables presented above, is their combine effect. Indeed, these two variables are viewed as complementary resources rather than as substitutes for each other. In their paper, this point is confirmed by the significant positive effect associated with the product variable NETWORK DENSITY X NETWORK HETEROGENEITY<sup>12</sup> in the regression presented by the authors. Hence, our third hypothesis is the following:

*Hypothesis 3: The co-invention network's External Range and Density of an industry-region are two complementary resources for this industry-region's innovative capacity.*

### **3. NETWORK**

We have seen that studying a region-industry's social capital through a network approach can be very interesting in terms of analysis, but that this type of approach presents several technical challenges that make it difficult to carry out. In particular:

- The size of the network studied
- The difficulty to collect sociometric data (links between actors)
- The difficulty to collect individual data for each actor

In this paper, we propose an experimental research strategy that aims at overcoming these challenges. Following Reagans & Zuckerman's (2001) view of social capital for innovation at work team level, we use Emmanuel Lazega's recommendation for the conception of structural analysis (Lazega, 2007) in order to precise how and why the analysis can be extended to regional level. In particular 3 main (interrelated) issues must be addressed: (a) the unit and level of analysis, (b) the choice of the relationships observed, and (c) the specification of the frontiers of the system studied. We will review these 3 issues successively.

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### ***3.1 Unit/level of analysis***

About network analysis, Lazega reminds that “for groupings and reductions operated in the course of the analysis to have a sense, for the external validity of the results to be clearly established, the actors put in relation must belong to a same “category”. Thus, a uniform base must be defined, social units of the same nature and same level of analysis (...)” (Lazega, 2007, p. 19)

At organizational or work team level, the units of analysis selected by authors are R&D teams, and the unit of analysis is the team member. The assumptions behind this choice are that all members of a team have the same status and nature, and that all of them can potentially play a comparable role in the innovation process of the team. These assumptions are fairly acceptable.

Extending the analysis to regional level is not straight forward. Indeed, at this level, different actors of different natures play a part in the invention process: firms, universities, other public organizations, individual inventors, etc.

Thus numerous extra factors of individual actor’s fractionalization (e.g. part of active population or not, organization worked for, type of organization worked for, etc.) imply that the assumptions of status equality and equal potential participation to innovation are not acceptable anymore if each inhabitant of the region is included in the network studied.

However, selecting only a certain “category” of firm members and studying their network of relationships is an acceptable solution. This has been done in particular for inventors inside firms (Tortoriello & Krackhardt, 2010). Despite the variety of profiles, professional activities, and organizational belongings of these inventors, they all share several common attributes that make them a salient unit of analysis:

- Their contribution to technological innovation has been recognized by peers
- They all had the will to insert their innovation process in a common institutional frame which features peer evaluation, anteriority research, and standardization of claims and application.
- They all have the will to get retribution from their invention, by making it valuable for European Union markets.

### ***3.2 Choice of the relationships observed***

“In order to contribute to put to light and explain a system’s regulation from the relationships between members, and the structuration of a social field from actor’s strategies, the researcher must identify the resources whose circulation is vital for the system, as well as the productions, exchanges, controls and solidarity which characterize it.” (Lazega, 2007, p. 19)

In the case of a system whose production is innovation or invention, one specific resource has been clearly identified by the literature as critical: knowledge. Thus, knowledge flows and exchanges have been studied extensively by this literature (...). A problem with this type of exchange is that it's mostly intangible and therefore, hardly accountable. Despite that, researchers have found different strategies to account for such transfers. The first one was to consider citation links as material tracks of knowledge flows (Jaffe, Trajtenberg, & Henderson, 1993; Agrawal, Kapur, & McHale, 2008).

More recently, some researchers have focused on co-inventorship links: the fact that two or more inventors are co-producers of an invention patent implies, in most cases, that they have spent time working together, that they have gathered their talents and knowledge to create something new, and that they must have significantly communicated with each other. In other words, it implies that they have exchanged a significant amount of knowledge.

For these reasons, we consider that co-inventorship ties between inventors constitute a significant social relationship for a structural analysis of the technological innovation system.

### ***3.3 Specifying the frontiers of the system***

Firstly, the frontiers of the system we want to study are geographic. For each region, we study the network of inventors whose address is in the region. But of course, these inventors can have co-inventorship ties with inventors who do not live in the region. This will allow us to evaluate each region's external range.

Secondly, the frontiers are also on technological field. Since all industrial sectors and technological fields do not have the same use of patents, we consider that it is difficult to include all inventors in a common system, because they do not operate on the same markets, nor with the same intensity. In order to unify the unit of analysis, we limit the scope of the analysis to a "single" technological field, corresponding to a "single" market.

In the case of our empirical part, we focus on the electric devices industry (NACE code: 27.1, 27.2, 27.3, 27.4 and 27.9), and the corresponding technological class of "basic electric elements" (IPC classes H01).

Also, temporal frontiers have to be discussed. When the priority year of a published patent is T, it means that the research and invention process that has been carried out by the inventors, resulted in an invention at T. But the process that gave birth to this invention is usually long. Following the

literature, we will consider that this process is three years long on average. Hence, we will also consider that the co-invention network that is relevant to explain the innovative capacity in T, is the network of all ties formed between inventors from T-3 to T.

At the end of the line, in order to evaluate the social capital variables that are relevant for the innovative capacity of the electric device industry in region r at year t, we will use the co-inventor network that results from patents for which at least one inventor resides in region r, which features at least one H01 IPC sub-class, and whose priority date is between t-3 and t.

#### 4. INDIVIDUAL CULTURAL ATTRIBUTES

The framework presented above suggests that individual's attributes must be determined, in order to measure the "distance in attributes" that separates connected individuals, and *in fine*, in order to measure the system's global external range. But like we mentioned earlier, the concept of "distance in attributes", as well as the underlying concept of "individual attribute", must be discussed and defined clearly.

Since we study innovative capacity and the knowledge diffusion that fosters it, we will focus on individual attributes that can have a significant impact on individual knowledge. Thus, the starting point of our demonstration will be "knowledge".

In order to conceptualize the mechanisms of innovation, Hatchuel *et al.* have built a general theory of conception (Halchuel & Weil, 2003) and based on it, they have explained how "innovative conception" is at the heart of modern intensive innovation mechanisms (Lemasson, Weil, & Hatchuel, 2006). Their main point is that these mechanisms are made of perpetual movements between the "knowledge space" (K) and the "concepts space" (C). "Knowledge space" is defined as "the space of propositions that have a logical status<sup>13</sup> for a designer D" (Halchuel & Weil, 2003, p. 5), while in contrast, a "Concept" is defined as "a proposition or a group of propositions that have no logical status in K". Hence, it is important to note that, with this definition of "knowledge", different people can give different logical status to a same proposition, but still share a common knowledge. For example, two people living in the same country, who do not have the same political opinion at all, still have a common knowledge of the political parties of their

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<sup>13</sup> Further "We call "logical status of a proposition", an attribute that defines the degree of confidence that D assigns to a proposition. In standard logic, propositions are "true" or "false". In non standard logic, propositions may be "true, false or undecidable" or have a fuzzy value. (...) In the following, we will assume for simplicity that in K, we have a classic "true or false" logic. But the theory holds independently of the logic retained." (Halchuel & Weil, 2003, p. 5)

country, of their representatives, of the political History of their country, etc. Their common culture provides them with common pieces of knowledge.

Further let us also note that in this “Knowledge space / Concept space” view,

The innovative conception dynamic is then made of movements between K and C. The “designers” or inventors start from K and build “concepts” by recombining existing pieces of “knowledge”. This movement is called a “disjunction” (knowledge => concept). And for some “concepts”, they manage to assign them a logical status through experiments, discoveries, creation a prototypes, demonstrations, etc. By doing this, they transform these concepts into “knowledge”. This movement is called “conjunction”. The new knowledge created can then be used to create new “concepts”, and so on. This dynamic is illustrated by figure 2, taken from *Hatchuel & Weil, 2003* [p. 10]. We will retain *Hatchuel et al.’s* definition of “knowledge” and “concepts” for the remainder of the paper.

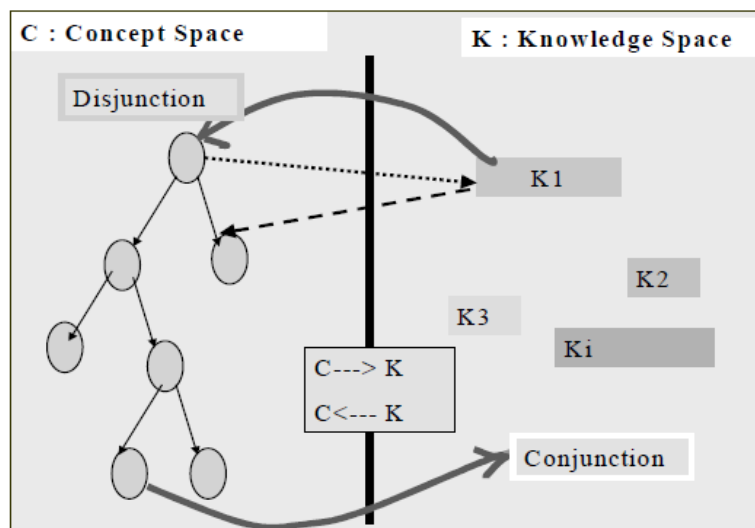


Figure 2. C-K dynamics

This framework illustrates formally how and why cultural diversity – and the diversity of knowledge associated to it – amongst inventors engaged in the same innovative process can have a positive impact on the results of this process: “concepts” are built by recombining existing pieces of knowledge. Hence when the pool of existing knowledge is too redundant, recombination is difficult. In contrast, when designers are able to give logical status to a pool of propositions that are different from one designer to another, the possibilities of recombination are augmented.

It also illustrates how new knowledge builds over time resulting from previous knowledge. During this process, the inventors share a part of their knowledge with the other designers engaged in the same process, and thus their knowledge tend to converge over time. This knowledge distance decrease must be taken into account in the evaluation of individual attributes.

The homophily property of networks suggests that individuals sharing certain personal attributes tend to form links with people of the same kind (homophily of choice). But this property can be viewed the other way around. People who happen to spend time together for different reasons (living in the same place, working for the same company, belonging to a same promotion in college, etc) tend to form and preserve links over time (homophily of opportunity), which leads them to develop common knowledge, that can be embodied by a new common attribute (the attribute can be explicit or tacit).

This conception of Knowledge has led us to formulate 2 hypotheses concerning the relevant way of defining individual attributes in order to measure a group's "external range" in the context of innovation and knowledge diffusion.

*Hypothesis 4a : Individual Attributes are not exclusive. Individuals' identities are made of several attributes.*

*Hypothesis 4b: individuals who happen to spend time together acquire explicit or tacit common individual attribute.*

Considering these hypotheses, we have identified 2 categories of such attributes that we will be able to account for in our empirical analysis:

- *Geographical attributes* => attributes resulting from geographical positions of an individual throughout his life (country of birth, country of residence, nationality, region of residence, etc.)
- *Activity attributes* => attributes resulting from the activities that an individual does (professional activity, technological specialization, leisure activity, etc.)

For each inventor, the geographic attribute is represented by a vector of proportions indicating the different countries in which the inventor has lived, and the proportion of his patents for which her address is in this country. For example, if *John Martins* is an inventor who has invented 4 patents



in his life at date T, 2 when he was living in Tokyo and 2 while in his present place in London, his geographical attribute vector is composed of 0 for each country, except UK and Japan, where the share is 0,5 for both. This is illustrated by the table below:

Inventor Name	Inventor Id	AT	BE	...	SE	UK	US	JP
John Martins	MAMZ1678	0	0	...	0	0,5	...	0,5

For each inventor, the activity attribute or “technological attribute” (the type of activity of the inventor is determined by his technological specialization) is represented by a vector of proportions indicating the different IPC classes that appeared in the inventor’s patents, and the proportion of each IPC class amongst the total number of IPC classes. For example if the IPC codes of John Martins’s 4 patents are the following:

Patent Publication Nb	IPC codes	Nb A21 class	Nb H01 class	Nb H02 class	Total number codes
EP0004567	H01H1/023 ; H01H1/027 ; H01H3/00 ; H01B1/02	0	4	0	4
EP0234897	H01B3/00 ; H01H1/023 ; A21B1/52	1	2	0	3
EP1236754	H01B1/02 ; H02J1/08	0	1	1	2
EP1256090	H02J11/00 ; H01J13/00 ; H01K1/26	0	2	1	3
<b>TOTAL</b>		1	9	2	12
<b>SHARE</b>		0,08	0,75	0,17	1

Then John Martins’ technological profile is represented by the following vector:

Inventor Name	Inventor Id	A01	A21	...	H01	H02	...	H05
John Martins	MAMZ1678	0	0,08	...	0,75	0,17	...	0

In this setting, we can see that individual’s cultural attributes evolve over time and that they relate to two different dimensions of individual culture. This traduces our evolving and multi-

dimensional conception of a person's cultural profile. It also enables us to account for the fact that people who collaborate repeatedly tend to converge in knowledge, as they obtain common patents with the same IPC codes, which make their technological profiles get closer to each other.

## 5. EMPIRICAL FRAMEWORK

### 5.1 Database

We use data from 4 databases:

- The PATSTAT 2009 database edited by PATSTAT, a sample of which was kindly made available for our research by the *Observatoire des Sciences et Technologies* (OST) in Paris. This database provided for each EPO patent:
  - Received citations
  - Applicant's Person\_Id in PATSTAT 2009
  - Patent's Application\_Id in PATSTAT 2009
  - Patent's Publication number at OEB
  
- The EPO REGPAT 2010 database edited by OECD, derived from PATSTAT 2009 by adding to the geolocalization (region code and country code) of inventor's and applicant's addresses. This database provided for each EPO patent:
  - Inventor's names
  - Inventor's addresses
  - Inventor's region code
  - Applicant's names
  - Applicant's addresses
  - Applicant's region code
  - Patent's IPC code
  - Patent's Priority year
  - Patent's application year
  - Patent's Publication number at OEB
  - Patent's Application Id in REGPAT 2010 (different from Application ID in PATSTAT 2009)
  
- The EEE PAT 2011 database, co-edited by EPO, EUROSTAT and the ECOOM lab from Louvain Catholic University, also derived from PATSTAT 2009 by harmonizing applicant's names and classifying them by broad sector of activity (public sector, private sector or individual). This database provided for each EPO patent:

- Harmonized Applicant's names
  - Applicant's sector of activity
  - Patent's Application Id in PATSTAT 2009
- The EUROSTAT database, edited by EUROSTAT, which allowed us to gather the control variables at regional level.
    - Regional GDP/inhabitant
    - Regional share of High-tech and Mid-tech manufacturing employees
    - Regional investment in R&D for private sector, public sector and universities
    - Regional Human Ressource in Science & Technology (education)

The first step in creating our database was to isolate the patents which concern the industrial sector of electric equipment. In the IPC classification, the section H, "Electricity", is divided into 6 classes: H01 ("basic electric elements"), H02 ("generation, conversion or distribution of electric power"), H03 ("Basic Electronic Circuitry"), H04 ("Electric Communication Technique"), H05 ("Electric techniques not otherwise provided for"), H99 ("Subject Matter not otherwise provided for in this section").

We could have selected both H01 and H02 for our study, because these are the most relevant classes for electric equipment sector. But due to the large number of patents that this represents, and to the technical limitations that we face, we decided to focus only on the H01 class: "basic electric elements", which is the most represented class of the section.

Once this choice was made, we selected in EPO REGPAT 2010, all patents that featured at least one<sup>14</sup> IPC code belonging to the H01 IPC class. We found 185,898 distinct OEB patents corresponding to these criteria (from hereafter "H01 patents"). From this list, we listed all the inventors of these patents. After going through a disambiguation process of inventor's names, the number of inventors was 180,215<sup>15</sup>. And from these inventors, we made a third list of all the OEB patents invented by these inventors, whether they feature a H01 IPC code or not (from hereafter "H01 inventors' patents"). This represents 262,153 distinct patents. So doing, we created a database in which each OEB patent of each H01 inventor is listed. Hence this procedure enabled

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<sup>14</sup> Patents can be assigned as many IPC codes as necessary, depending on the claims.

<sup>15</sup> The identification of distinct inventors represents a significant part of the work, since there is a lot of misattributions and duplications of "Inventor's Id" in any patent database. Indeed, the inventor's names features spelling mistakes, letters omissions or substitutions, different words order, etc. Thus a process of name dizambiguisation is necessary in order to identify inventors properly. Following, Raffo & Luhillery, 2009 we accomplished a 3-step disambiguization process (cleaning, parsing and filtering) using EUROLIO's disambiguating program "Detect Doublon" (created by J. from EUROLIO).

us to get a complete view of each inventor’s patenting activity, of each inventor’s patenting profile.

List N°	List short name	Description	Number of observations
List 1	<i>H01 patents</i>	All distinct patents that feature at least one IPC code belonging to the H01 IPC class	185,898
List 2	<i>H01 inventors</i>	All distinct inventors who have participated in at least one H01 patent	180,215
List 3	<i>H01 inventors’ patents</i>	All distinct patents in which at least one H01 inventor has participated	262,153

We used these patenting profiles to determine inventor’s individual attributes. We proposed in section II that individual’s attributes that are relevant for knowledge production and diffusion can be split into 4 categories: geographic attributes (GA), activity attributes (AA), and organizational attributes (OA) and status attributes (ST). Although not all of these categories of attributes can be addressed thanks to the information contained in patents, several attributes can still be evaluated. In particular, we focus on two attributes belonging to 2 different categories:

- **“Inventor’s region” (GA):** *the OECD REGPAT database provides a coding of inventor’s addresses which allows knowing in which NUTS 2 region her address is located.*
- **“Inventor’s technological field of specialization” (AA):** *we assume that when an inventor obtains a patent in a technological field, it means that this inventor has a certain expertise in this technological field.*

And like we explained in section II, the types of individual attributes that we focus on are not exclusive, and they evolve throughout a lifetime. Individuals accumulate different attributes during their lives by living in different places, by doing different activities, by being part of different organizations, and by being granted different statuses in the course of their lives.

In our study, we express this dynamic non-exclusive conception of individual attributes by describing an inventor N at date T, by 2 vectors of attributes proportions:

- ***G***: vector of “country of residence” proportions. Inventor’s addresses can change from one patent to another. *G* represents the share of each country amongst an inventor’s list of addresses.
- ***T***: vector of “IPC classes” proportions. Each patent feature several IPC codes (9-digits) that can belong to different IPC classes (3-digits). Additionally, inventors can obtain several patents throughout their lives. Thus *T* indicates the share of each IPC class amongst the total number of IPC codes of an inventor’s patent.

Of course, *G* and *T* evolve over time. Hence we measure them at each date of the period, in order to take into account individual evolutions. This formal description of inventor’s individual attributes enables us to measure, at each date, the Geographic Attributes Distance (DGeo) and the Technological Attribute Distance (DTech) that separates any pair of inventors at each date. These distances are calculated as:

$$\frac{\sum_{i=1}^n |G_i - G_j| + \sum_{i=1}^n |T_i - T_j|}{2}$$

Where,

Let us note several interesting features of this measure: first, DGeo and DTech take values between 0 (identical profiles) and 1 (totally different profiles). Secondly, if two inventors co-invent a patent, then the same IPC classes are added to their pool of individual attributes, so that the individual profiles of the two inventors converge. This is very salient with our conceptual framework since we mentioned in section II that common attributes are built by people who interact with one another over time.

As we will see, being able to measure geographic and technological distance between any pair of inventors will enable us to measure at each date *t*, each region’s *r* geographical external range  $DGeo_{rt}$  and technological external range  $DTech_{rt}$ .

For the creation of our region sample, we focused on UE regions. And since many regions displayed very low levels of patenting, we also decided to focus only on the most active regions in terms of H01 patenting. In the end, our sample is composed of the EU regions in which at least 500 OEB H01 patents have been granted. This results in a 32 regions sample (Table 1 gives the list of these regions).

Pays	Code region	Nom région
DE	DE11	Stuttgart
	DE12	Karlsruhe
	DE13	Freiburg
	DE14	Tübingen
	DE21	Oberbayern
	DE23	Oberpfalz
	DE25	Mittelfranken
	DE26	Unterfranken
	DE27	Schwaben
	DE30	Berlin
	DE71	Darmstadt
	DE92	Hannover
	DEA1	Düsseldorf
	DEA2	Köln
	DEA5	Amberg
	DEB3	Rheinessen-Pfalz
DED2	Dresden	
DEG0	Thüringen	
FI	F118	South Finland
FR	FR10	Île de France
	FR62	Midi-Pyrénées
	FR71	Rhône-Alpes
	FR82	Provence-Alpes-Côte d'Azur
IT	ITC1	Piemonte
	ITC4	Lombardia
NL	NL41	Noord-Brabant
SE	SE11	Stockholm
	SE12	Östra Mellansverige
UK	UKH1	East Anglia
	UKJ1	Berkshire, Buckinghamshire and Oxfordshire
	UKJ2	Surrey, East and West Sussex
	UKJ3	Hampshire and Isle of Wight

Table 1: the 32 regions of our sample

## 5.2 Variables

### *Dependant variable*

Ln PAT (Logarithm of the Number of H01 patents):

Following the Griliches-Jaffe framework, we use a classical Knowledge production function with substitutable factors. Hence, we use the log of our knowledge production variable (*number of H01 patents granted*, whose priority date is T and for which at least one inventor's address is located in R) for our estimation.

### *Independent variables*

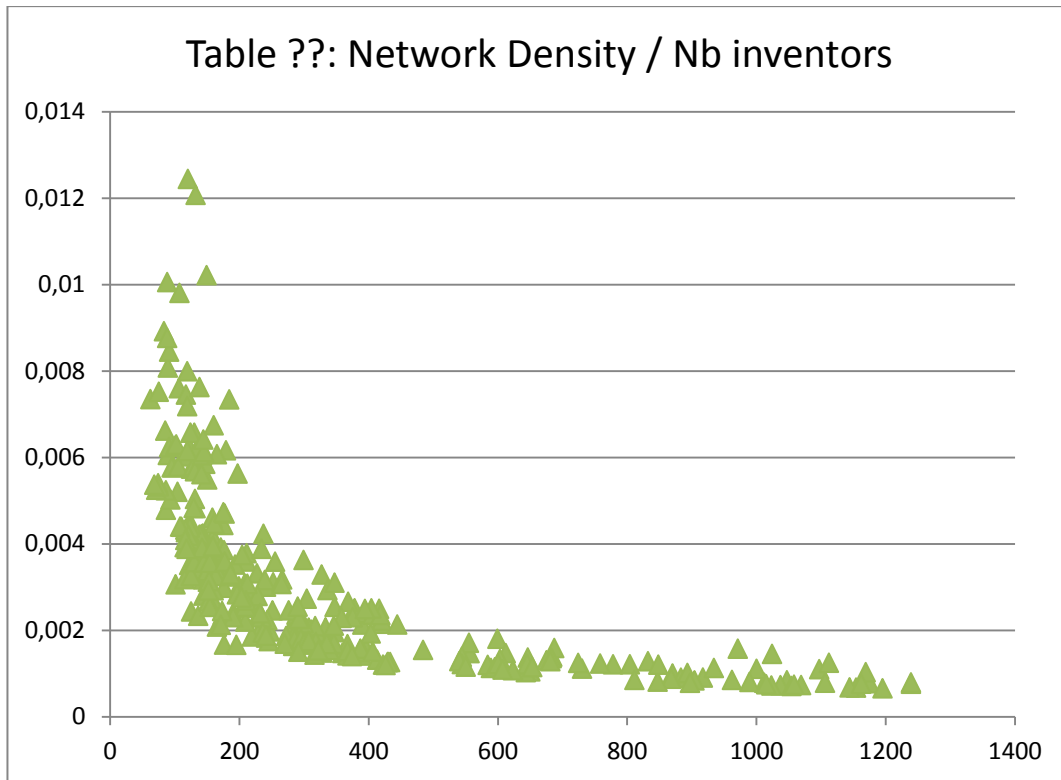
Network Density (DENS): Reagans & Zuckerman (2001) use this variable as a proxy for cohesiveness. It is expected to have a positive impact on the industry-region's innovative capacity. Network Density is calculated as the number of existing links in the network divided by the number of possible links (i.e. [number of actors in the network] X [number of actors in the network – 1]). Just like all the network variables, it is calculated for the network composed of the co-inventors links formed between T-3 and T-1.

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Where  $n$  represents the number of inventors in the network, and  $l$  represents the number of links formed between these inventors between T-3 and T-1.

Like we mentioned earlier, it is also expected to be low on average, since competition between firms as well as innovation appropriation issues naturally push firms not to share knowledge with other firms. Even though it is more and more recognized as an important driver of innovation, inter-firm collaborations remain a minority of the cases.

Additionally, an important empirical property of social networks is that their density decreases with the size of the network (number of agents) more than proportionally. Indeed, while the theoretical amount of links that an agent can form can increase infinitely with the size of the network, the physical and cognitive properties of human beings imply that the amount of links they can form cannot grow infinitely. Hence, the comparison of networks' densities between large and small networks reveals difficult. This empirical bias of network density has been highlighted by several authors (Friedkin, 1981, Faust, 2006). (Table ?? below displays the cloud of the observations plotting network density on number of inventors).



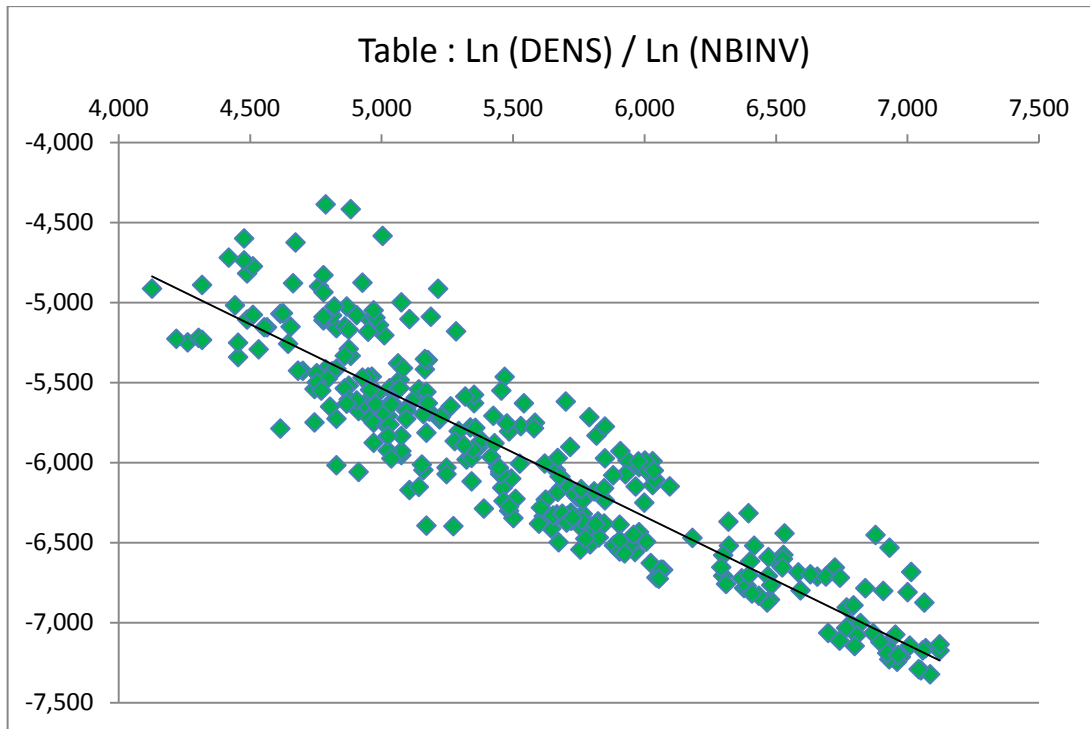
For this reason, we have chosen not to use the gross network density as an indicator of cohesiveness, but rather, a normalized value of the density. This normalized value was obtained through a log-linear regression of the variable DENS (network density), explained by the variable NBINV (number of inventors). Indeed, the distribution of the observations seems to follow an empirical relation of the form:

$$DENS = a \cdot NBINV^{-b}$$

So that, the distribution of the Ln follows a linear relation:

This relation is illustrated by table ?? below.





Finally, after having determined the estimated a and b coefficients of this regression (resp. -1,528 and -0,801) and checked their significance (both p-values <0.0001) as well as the quality of the regression (adj.  $R^2 = 0,816$ ), we have used the residuals as our explanatory variable (RES\_LNDENS).

Thus, this explanatory variable displays positive values when the observed network density is superior to the predicted value, with regard to the number of inventors, and is negative when the predicted value is inferior to the predicted value.

#### DTECH and DGEO:

The next 2 explanatory variables are the mean “technological” distance and mean “geographical” distance between inventors that have co-invented patents in the region. These variables are comprised between 0 and 1. 0 means that all inventors linked to each other have the exact same characteristics. 1 means that they all have totally different characteristics.

#### RES\_LNDENS X DTECH and RES\_LNDENS X DGEO:

Finally, the last 2 explanatory variables are the cross products of the cohesiveness and technological external range on the one hand, and of the cohesiveness and geographical external range on the other hand.

## ***CONTROL VARIABLES***

### Ln (EMP TOT) Market Size:

we need to control for the agglomeration effect that results from the size of the region, and more specifically, from the size of the job market. The measure is obtained from the EUROSTAT database which gives us each region's total employment. Our control variable is the average total employment between T-3 and T-1.

### Share of Mid-Tech Employment (EMP MT):

this variable controls for the sectoral distribution of the region. In particular, since electric devices industry is part of the Mid-Tech category of industrial sector (see EUROSTAT), one must control for this category's share of employment in the region. Unfortunately, we did not have more precise data on the sectoral specialization in electric device industry. This control variable would obviously improve the quality of the adjustment.

### Ln (GDPPC) GDP par capita:

Research is a long, costly and risky process (in particular the patenting process) for firms and individuals. This implies that in poor regions (where GDP par inhabitant is low) firms and individuals can be more reluctant to invest and involve in such processes. Including the GDP per inhabitant as a control variable controls for this effect.

### Human Resources in Science and Technology – education (HRST EDU):

this variable accounts for the human capital effect. Human capital is considered as a driver for technological progress, like illustrated by Romer's (1990) and Lucas' (1988) endogenous growth model. An important part of Human Capital holds in the average education level of the population. In order to measure such capital, countries account for inhabitants' education level. Human Resources in Science and Technology is composed of the people who have whether "successfully completed education at the third level in an S&T field of study" or who are "not formally qualified as above but employed in a S&T occupation where the above qualifications are normally required" (EUROSTAT website). We use the former part HRST EDU to account for human capital.

## ***5.3 Descriptive statistics***

The following tables show the descriptive values of our variables and displays the correlation between all explanatory and control variables.

Simple statistics						
Variable	N	Mean	Standard error	Sum	Minimum	Maximum
LN_EMPT-3	315	7.12092	0.50024	2243	6.19267	8.52323
SHAREMHT-3	316	0.08459	0.03755	26.73153	0	0.18353
SHAREHRST	315	0.31758	0.08440	100.03823	0.10479	0.53208
LN_GDPPCT	320	10.14846	0.21329	3248	9.59560	10.69799
RES_LNDE	320	1.25E-7	0.27604	0.0000400	-0.72099	1.02590
DTECHT-3	320	0.18377	0.04575	58.80504	0.06415	0.28867
DGEOT-3	320	0.10932	0.06685	34.98196	0.01035	0.37841
RESLNDE	320	-0.00501	0.05235	-1.60234	-0.17247	0.17387
RESLNDE	320	-0.00180	0.03101	-0.57464	-0.12618	0.13871

Coefficients de corrélation de Pearson									
Proba >  r  sous H0: Rho=0									
Nombre d'observations									
	LN_EMPT-3	SHAREMHT-3	SHAREHRST	LN_GDPPCT	RES_LNDE	DTECHT-3	DGEOT-3	RESLNDE	RESLNDE
LN_EMPT-3	1.00000	-0.10775	0.03917	0.31581	-0.01634	-0.25721	-0.04059	0.01081	0.00474
		0.0561	0.4885	<.0001	0.7727	<.0001	0.4729	0.8485	0.9332
	315	315	315	315	315	315	315	315	315
SHAREMHT-3	-0.10775	1.00000	-0.51330	0.13959	-0.33884	0.58926	-0.31885	-0.33687	-0.22443
	0.0561		<.0001	0.0130	<.0001	<.0001	<.0001	<.0001	<.0001
	315	316	315	316	316	316	316	316	316
SHAREHRST	0.03917	-0.51330	1.00000	0.14514	0.03470	-0.18107	0.09696	0.01207	0.00684
	0.4885	<.0001		0.0099	0.5395	0.0012	0.0858	0.8311	0.9037
	315	315	315	315	315	315	315	315	315
LN_GDPPCT	0.31581	0.13959	0.14514	1.00000	-0.18597	0.21807	0.04800	-0.16594	-0.11741
	<.0001	0.0130	0.0099		0.0008	<.0001	0.3921	0.0029	0.0358
	315	316	315	320	320	320	320	320	320
RES_LNDE	-0.01634	-0.33884	0.03470	-0.18597	1.00000	-0.39772	-0.09761	0.96845	0.83926
	0.7727	<.0001	0.5395	0.0008		<.0001	0.0812	<.0001	<.0001
	315	316	315	320	320	320	320	320	320
DTECHT-3	-0.25721	0.58926	-0.18107	0.21807	-0.39772	1.00000	0.03391	-0.32411	-0.29365
	<.0001	<.0001	0.0012	<.0001	<.0001		0.5456	<.0001	<.0001
	315	316	315	320	320	320	320	320	320
DGEOT-3	-0.04059	-0.31885	0.09696	0.04800	-0.09761	0.03391	1.00000	-0.05674	-0.07812
	0.4729	<.0001	0.0858	0.3921	0.0812	0.5456		0.3116	0.1633
	315	316	315	320	320	320	320	320	320
RESLNDE	0.01081	-0.33687	0.01207	-0.16594	0.96845	-0.32411	-0.05674	1.00000	0.83482
	0.8485	<.0001	0.8311	0.0029	<.0001	<.0001	0.3116		<.0001
	315	316	315	320	320	320	320	320	320
RESLNDE	0.00474	-0.22443	0.00684	-0.11741	0.83926	-0.29365	-0.07812	0.83482	1.00000
	0.9332	<.0001	0.9037	0.0358	<.0001	<.0001	0.1633	<.0001	
	315	316	315	320	320	320	320	320	320

We observe that there is no correlation between the explanatory variables (besides of course, the cross products variables).

#### 5.4 Model specification

We use a panel regression model with random effects. The specification of our model is the following:

### 5.5 Results

The table below displays the results for different combinations of the explanatory variables

DEP: Ln PAT	Model 1	Model 3	Model 2	Model 4
Intercept	5,253***	3,781*	5,203**	4,201*
LN_EMPT-3	0,0469	0,122	0,026	0,066
SHAREMHT-3	4,415**	3,757**	4,491**	3,884**
SHAREHRSTT-3	0,887	0,771	0,772	0,738
LN_GDPPCT-3	-0,194	-0,085	-0,173	-0,087
RES_LNDENS	-0,179*	0,525*	-0,046	0,555*
DGEOT-3			0,135	0,302
DTECHT-3		-0,541		-0,663
RESLNDENS X DGEO			-1,275	-0,603
RESLNDENS X DTECH		-3,654		-3,353**
R-squ	0,042	0,048	0,051	0,068
Hausman Test for random effect	0,111	0,243	0,287	0,431
Nb of cross section	32	32	32	32
Time series length	10	10	10	10

The results show that in the full model (model 4) as well as in the model with the DTECH and RES\_LNDENS X DTECH variables (model 2), RES\_LNDENS has a significant positive effect on knowledge production. This confirms hypothesis 1.

Concerning hypothesis 2, neither DTECH nor DGEO have any positive effect in any of the tested models.

Finally the product variable of RES\_LNDENS and DTECH has a significant negative impact on knowledge production in model 4. This is a counter-intuitive result with regards to our hypothesis 3.

Besides the quality of the regression is rather poor since the  $R^2$  does not reach 0,1 in any of the models.

## 6. CONCLUSION

Even though the effects and the significance of the results are limited, the influence of a network's cohesiveness on the knowledge production it yields is confirmed by our estimation: The denser a network (relatively) the more productive it is in terms of knowledge production.

In contrast, the results do not enable us to confirm the hypothesis about the role of technological and geographical external range in the innovation processes of a region-industry. However, the absence of significant correlation between DTECH / DGEO and Ln PAT does not discard this hypothesis. Additionally, given the rather exploratory aspect of these explanatory variables, more effort can be done in trying to make them better proxies for technological and geographical external range.

Further, the inclusion of *organizational external range* is another important improvement to carry out, in order to better proxy the theoretical concept of external range. Indeed, in patenting processes, the influence of organizational strategies in deciding which collaboration are achieved and which are not, should not be neglected. Organizational distance between collaborating inventors is an important element in allowing a widening of the scope of reachable knowledge.

Concerning the cross product variables, the results are not very clear and significant and cannot be interpreted at this point.

Another important improvement of the model to carry out concerns the control variables: in particular, a better account of the sectoral specialization of regions, could yield a greater stability in the results across specifications.

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# Values and attitudes towards innovation among Canadian, Chinese and Russian students

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## **Abstract**

This study investigated relations of basic personal values to attitudes towards innovation among students in Russia, Canada, and China. Participants completed a questionnaire that included the SVS measure of values (Schwartz, 1992) and a new measure of attitudes towards innovation (Lebedeva, Tatarko, 2009). There were significant cultural and gender-related differences in value priorities and attitudes to innovation among the Canadian, Russian, and Chinese college students. As hypothesized, across the full set of participants, higher priority given to Openness to change values (self-direction, stimulation) was related to positive attitudes toward innovation whereas higher priority given to Conservation values (conformity, security) was related negatively to attitudes toward innovation. This result is compatible with the findings reported by other researchers (Shane, 1992; Dollinger et al., 2007). There were, however, culture-specific variations in some of these associations, which may be explained by cultural differences in value priorities and implicit theories of creativity. Applying the Multiple-Group Multiple Indicators Multiple Causes Model (Muthen 1989) we have found that the type of mediation between sociodemographic factors and attitudes to innovation is different in the three samples. Whereas in Russia and Canada the effects of gender and age are fully mediated by the values, this is not true for China, where a direct effect of gender on innovation was found. The cultural differences in values, implicit theories of innovation, and attitudes to innovation are discussed.

## **Keywords**

Culture, values, innovation, gender, age, attitudes, cross-cultural comparison, Multiple Group MIMIC Model

## **JEL Classification**

A13



## 1. INTRODUCTION

Cross-cultural studies in contemporary social science have shed light on a range of social issues and their cultural variability. Researchers have shown that culture plays a significant role not only in a country's economic development, but also in its citizens' state of health, life expectancy, sense of well-being, and happiness. An additional and very important dimension tied to culture is the level of inquisitiveness and tolerance regarding new ideas (Harrison & Huntington, 2000, Inglehart & Baker, 2000; Diener, 1996; Shane, 1992, 1995; Dollinger, Burke & Gump, 2006, Kharkhurin, Motallebi, 2008).

One aspect of such cross-cultural research that has received little attention concerns relationships between individual values of people from different national and ethnic backgrounds and the attitudes towards innovation and inventiveness (Leung, Morris, 2011). These relationships are the subject of this study. Specifically, we explore the question: Can value priorities serve as universal or cultural-specific predictors in favor of innovations or not? These questions are not idle or abstract: In an increasingly complex and changing business environment, creativity and innovations are a critical factor for the success of organizations and even whole nations. In the postindustrial era, the social and economic development of countries depends to a large extent on the ability to develop knowledge, that requires new approaches and solutions. In addition we test whether the effects of gender and age on attitude towards innovation are fully mediated by individual values. Both demographic variables are used in a lot of studies as direct predictors of innovation without testing for the possible mediation via personal values (Rogers 1995). Despite the fact that creativity and innovation is an increasingly studied topic (Zhou & Shalley, 2003) we agree with Leung and Morris (2011) that there is limited research investigating it outside of Western cultures or comparatively across cultures.

In this paper we study the relationships of values and attitudes towards innovation in three groups of students with two of them from non-Western cultures (China and Russia). We also try to 'unpack' the influence of culture (Leung and van der Vijver, 2008) into the influence of implicit culture-specific gender norms through testing the direct impact of gender on attitudes to innovation. In doing this we firstly address the theoretical background of the relationship between values and innovations and the setting of the study. Then we describe the samples, the measurement instruments and the descriptive empirical results like means, standard deviations and correlations. The test of the propositions for the three countries is performed by a Multiple -Group Multiple Indicators Multiple Causes Model (MGMIMIC), which allows a simultaneous test of all

parameters in the three countries (Muthen 1989). Finally we summarize the results and discuss strengths and weaknesses of the study.

## 2.THEORETICAL BACKGROUND

### 2.1. The Importance of Innovation and the setting of the study

In recent years, the world has witnessed the power of innovation and its various constituents in revolutionizing the business and economic landscape. With the advancement of the knowledge-based economy, the world is also seeing how innovation empowers individuals, communities and countries with a profound impact on business, politics, and society. What is equally evident is the increasing role that innovation plays in accelerating economic growth and promoting development(Rogers/Larsen 1984). Therefore, more than ever, in the current global economic situation, policy makers and business leaders recognize the need to create an enabling environment to support the adoption of innovations, check their possible side effects and spread their benefits across all sectors of society.

The importance of innovation readiness, especially at the national level, has achieved prominence on the public policy agenda, with the realization that the right policies, inputs and enabling environment can help countries fulfill their national potential and enable a better quality of life for their citizens. According to the INSEAD' Global Innovation Index<sup>16</sup> 2009/10 report (see table 1) the American continent houses traditional innovators such as the USA (11th) and Canada (12th), which is not surprising.

**Table 1:** Indicators of Innovation

Country	Rank	Global Index (factor scores)	Innovation Capacity Index (ICI)
Canada	11	1,56023	74,8
China	41	-0,01059	49,5

<sup>16</sup> Global Innovation Index INSEAD (GII\_INSEAD) includes 7 subindexes: Institutes and a policy; Personnel potential; Infrastructures (General and IT); Competitiveness of the markets, Competitiveness of the companies; Creative Results; Results of scientific researches. The given subindexes include 94 variables.

Russia	55	-0,32739	52,8
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The emerging economy of China holds 15<sup>th</sup> position in the Asia zone. The Chinese economy is the third largest in the world and one of the fastest growing economies. Though the Chinese economy has expanded at a good rate in the past decades with the opening up of its markets, income inequality is still very high. One problem that continues to face the economy of China is that of brain drain, where a major portion of its highly skilled population migrates to other lucrative destinations. Innovation has therefore tended to be focused outside the country in some measure, though in recent times, this trend is slowly reversing.

Russia over the decades has produced a large number of scientists and inventors. Traditionally, space technology and exploration, nuclear technology, air craft production and the arms industry have been among the key areas of competence for the Russian economy. The 1990s crisis that struck all the post-Soviet countries affected R&D by cutting down government expenditure in science and technology. It also led to a large number of Russian scientists and researchers leaving their country for better destinations for research. Russian scientists and inventors largely tend to apply only for Russian patents, avoiding patent registration abroad, which may also be explained by the low level of English proficiency. According to The INSEAD' Global Innovation Index 2009/10 report, Russia occupies 55<sup>th</sup> place in the world rating's of innovative activity among such countries as Costa Rica (54<sup>th</sup> place), Saudi Arabia (53<sup>th</sup>), Kazakhstan (56<sup>th</sup>). China occupies 41<sup>th</sup> place, outstripping Russia. It depends on systemic approach to the innovative development of China, according to the opinion of Russian sociologist Davidov (Davidov, 2010). From table 1 it is clear that the Innovation Capacity Index of Russia is a little bit higher while the rank of Global Innovation Index is lower. It tells us, that the potential for innovations in Russia is not sufficiently exploited.

There are many different explanations as to why some countries are more inventive and innovative than others. For example, economy-related explanations regard inventions and innovations resulting from public and governmental support; imitation; the level of demand; the intensity of research; the stages of a product's life cycle and many other causes (see the review in Shane, 1992). Besides these factors, cultural differences influence the levels of inquisitiveness and tolerance in respect to new ideas (Wallace, 1970). Cultures differ in their attitudes towards business formation (Shapiro and Sokol, 1982); the *per-capita* number of Nobel Prize winners in the sciences differs across countries; furthermore the level of individualism and lack of power

distance are related to innovation and invention at the level of organizations (Shane, 1992). Shane showed how differences in values among various nations influence the levels of innovation and invention at the organizational level, making some societies comparatively more inventive than others. According to Shane, two aspects of culture strongly influence inventiveness, the level of social hierarchy and individualism. This study examined the per capita number of invention patents granted to nationals of 33 countries in 1967- 1980 and compared it with an index of the values of power distance (social hierarchy) and individualism, compiled from a survey of 88,000 IBM employees by Geert Hofstede in the late 1960s and early 1970s. The results showed that individualistic and nonhierarchical societies are more inventive than other societies (Shane, 1992). Another cross-cultural study of Kharkhurin and Motalleebi (2009) presents evidence for the impact of the sociocultural environment on the creative potential. The study revealed that, compared to the Iranians, Americans and Russians have superior abilities to consider a problem from different perspectives and to generate original solutions to a problem. The performance differences on the originality measure of the representatives of the Western and Eastern countries calls for the possible revisions of the traditional definition of creativity as a construct emphasizing originality in thinking. Although originality and innovation are inherent properties of creative behavior in the Western thought, it might have a lower value in the East.

Different conceptions of creativity and novelty, rooted in implicit theories of creativity and innovation, has been stressed by other researchers too (Amabile, 1996; Khaleefa *et al.*, 1996, 1997; Kuo, 1996; Abou-Hatab, 1997; Cheng, 1999; Oner, 2000; Baldwin, 2001; Rudowicz, Yue, 2000; Rudowicz, 2003; Leung, Morris, 2011). Studies of the implicit theories people hold about creativity and innovation have revealed differences between the views in Western (USA and Europe) and Eastern (China, Japan, Korea) cultures. For example, implicit theories in the West see innovation as based on ingenuity, novelty, originality, and an orientation to self-expression. In contrast, in the East implicit theories understand innovation as interpretation of existing traditions and actions [Lubart, 1999]. Such differences may affect interpersonal judgments, the types of educational systems, skill training, etc. in societies. These differences in implicit theories of innovation may reflect differences in prevailing basic values in the different cultures.

Since the early 1990s, much of the research on values have been based on Schwartz's (1992) theoretical and methodological approach, which was grounded in Rokeach's work. Values of individuals are assessed in terms of motivational goals or personal principles by which one lives (Schwartz, 1992). Schwartz theorized that basic human values are cognitive representations of biological needs, social interaction needs, and group welfare needs (1992, 1994; Schwartz & Sagiv, 1995). He and colleagues postulated and found ten human value types across cultures: *power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition,*

*conformity, and security*. These 10 value types can be further grouped into two bipolar dimensions (matching four higher-order value types), **Openness to change** versus **Conservation** and **Self-transcendence** versus **Self-enhancement** (Schwartz, 1992). The former refers to values emphasizing self-direction and stimulation versus security, conformity, and tradition, whereas the latter refers to universalism and benevolence versus power and achievement. Presently the number of values and the corresponding items are increased (Schwartz, in press).

The mechanism underlying the relationship between values, innovation, and creativity can be specified as follows by using the Dual Pathway to Creativity Model (DCPM) (De Dreu et al.2008; De Dreu et al 2011) Self-Direction and Stimulation may be motivational forces to lead to more cognitive flexibility and more cognitive perseverance. These factors lead according to the DCPM model to a higher creative fluency and originality. On the other hand, high values on conformity and tradition lead via a bad mood to lower cognitive flexibility and less cognitive perseverance, which leads then to lower creative fluency and originality. As striving for and introducing an innovation is one specific form of creative behavior, we postulate that the same mechanism is also true for the introduction of innovations. For the diffusion of innovation however one needs additional explanatory variables (see Rogers 1995). Schwartz (2008) found that adopting technological innovations correlated positively with Stimulation and Self –Direction and negatively with Security, Tradition and Conformity.

As De Dreu et al (2011, p. 298) argue creativity and innovation are often used interchangeably but to do so misses some important nuances. Therefore we introduce explicitly the following two definitions for creativity and innovations which they propose based on the following works (Amabile, 1996, Runco, 2004, West and Farr, 1990):

D 1 Creativity can be defined as the generation of ideas, problem solutions, or insights that are novel and appropriate.

D 2 Innovation can be defined as the intentional introduction and application within a role , group or organization of ideas, processes, products or procedures, new to the relevant unit of adoption , designed to significantly benefit the individual, the group,, the organization or wider society. Furthermore according to on-going research attitudes towards creativity and innovations are important mechanisms for organizations to encourage innovation across all employees (Basadur, Hausdorf, 1996).

Let us now refer to the relationship between the demographic attributes age and gender and innovation. According to Rogers (1995) there is inconclusive evidence for the effects of gender and age on innovation adoption. It seems to depend on the specific innovation studied and the social context, how and whether gender and age influence innovation (see the discussion on

possible underlying mechanisms in Kaufmann/Schmidt 1976). The relationship between gender and age on the one hand and values on the other hand is according to the findings by Meuleman et al. (2012) on the basis of the analysis of data of the European Social Survey as follows: Men are higher in Stimulation and Self - Direction, whereas gender has no significant effect on Tradition and Conformity. Increasing age is positively connected to Conformity and Tradition whereas it is negatively related to Stimulation and Self-Direction. Therefore one can deduce that men should be more positive in their attitude towards innovation than women and that with increasing age the attitude towards innovation becomes more negative and less innovative behavior is shown.

### **3.PRESENT STUDY**

#### **3.1. Research Questions and hypotheses**

Our study investigates how individual values of people from different cultures relate to their attitudes towards innovation. We chose Canada, Russia and China because of several reasons. Firstly, Russia is similar to Canada with regard to its geographical location and the size of the territory it occupies and thus, is comparable to it with regard to this geographical dimension. Secondly, despite this similarity, Canada and Russia have very different social systems which have been established based on different historical and cultural premises. Russia and China have also some similarities (the size of territory and similar social system in their past) and differences in their historical and cultural background as well as vectors of their future development. Therefore it is especially interesting to compare in these groups, the influence of values on the attitudes towards innovations in three different countries. We have chosen students as a group as they have the most positive attitudes towards innovations in comparison with adults (Lebedeva, 2008) and are often the targets of intervention to increase the invention and innovation rates of industrial societies. The role of young generations in the development of the economy of knowledge seems crucial in these and principally in all countries. Therefore it is especially interesting to compare the influence of values on the attitudes towards innovations in the three different national student samples in Canada, China and Russia.

Specifically, our central research questions are:

- 1) Which of the ten values have an effect on attitude towards innovation and how strong is it?
- 2) Is the invariance of the relationships between individuals' values and attitudes to innovations in three different cultural groups - Canadian, Russian and Chinese college students given, that is to test the extent to which the values promoting positive attitudes towards innovations in the three groups are universal or culturally specific.
- 3) Is the level of values and attitude towards innovation different in the three countries?

4) Are the effects of gender and age on attitude towards innovation fully or only partially mediated by values and do they operate in the three countries in the same way?.

*Research Hypotheses:*

2. There are cultural differences in value priorities and attitudes towards innovation among Canadian, Russian and Chinese college students.
3. The values of Openness to change (self-direction and stimulation) determine positively, and those of Conservation (security, conformity and tradition) negatively, attitudes towards innovations
4. Values promoting positive attitudes towards innovations are universal as well as culturally specific
5. The effects of age and gender on innovation are fully mediated by values.
6. Age has a positive effect on Conservation values and a negative effect on Openness to change values, whereas gender has no effect on Conservation but does have an effect on Openness to change.

**3.2. Method**

**Participants.** In our study we used the following samples: College students from Canada, Russian Federation and China. The data were collected in 2009 (spring semester) among students of different departments from the three universities mentioned below.

The sample embraced 444 college students from:

- a) Saskatchewan University, Saskatoon, Canada; Canadians (born in Canada), N=207;
- b) National Research University ‘Higher School of Economics’, Moscow, Russia; ethnic Russians, N=137;
- c) Harbin Normal University, Harbin, China, Chinese, N=100) [see Table 2 for the description of the samples].

**Table 2.** Description of the Sample

Cultural groups	Students (Number/Mean age)	Male (%)	Female (%)
Russians	137 / 20,6 years	39	61
Chinese	100 / 22,5 years	50	50
Canadians	207/ 21,6 years	41	59
Total	444	43	57

**Measures.** The study was a cross-sectional survey using self-administered questionnaires presented in English, Russian and Chinese (Mandarin) respectively.

### **Cultural predictor variable**

1. Schwartz Value Survey (SVS). The Schwartz Values Survey (Schwartz, 1992) is a 56-item measure now validated in more than 60 countries. Participants rate the importance of 56 values on a scale from -1 (*opposed to my values*) to +7 (*of supreme importance*). Each value item provides a key phrase plus a parenthetical elaboration. To illustrate, self-direction includes the item “*CREATIVITY (uniqueness, imagination)*” and universalism includes the item “*A WORLD OF BEAUTY (beauty of nature and the arts)*.” Forty-five of the 56 values are grouped into the 10 composites and several additional items are counted in the higher-order dimensions. Analyses of SVS data can be performed at three levels: (1) individual items, (2) the 10 cross-culturally meaningful values composites, and (3) two higher-order dimensions of Self-transcendence (universalism, benevolence) vs. Self-enhancement (achievement, power); and Openness to change (self-direction, stimulation) vs. Conservation (tradition, conformity, security).

### **Outcome Variables**

2. Self-assessment of personality’s innovative qualities (Lebedeva, Tatarko, 2009) -15 items includes short verbal portraits of different people. Each portrait describes a person’s goals, aspirations, or wishes that point implicitly to the importance of innovations, so we regard it as a measurement of person’s attitudes towards innovations.

3 scales were obtained by exploratory factor analysis:

a) *Creativity* (6 items, for example: ‘He likes to do things in his own original ways’,  $\alpha = 0,80$ );

b) *Taking Risk for achievement* (4 items, for example ‘He is ready to take risks for the sake of achievements’,  $\alpha = 0,69$ );

c) *Orientation to the future* (4 items, for example: ‘Current losses, in his opinion, are not necessarily bad for the future’,  $\alpha = 0,74$ );

The mean score of the three scales forms the *Integral Index of Acceptance of Innovations* ( $\alpha = 0,79$  for Russians; 0,80 for Chinese; 0,76 for Canadians).

The method was validated in three previous studies (N=1354 respondents), the first one has been conducted in 2007 (637 respondents: 360 Ethnic Russians and 267 North Caucasians, the other two have been conducted in 2008 (416 managers of international companies in Russia and 200 students in Canada). In each sample an independent exploratory factor analysis was proceeded. The results were as follows: in the group of ethnic Russians: KMO = 0.79, % of explained dispersion is 50.7; in the group of the people of the North Caucasus: KMO = 0.87, % of explained dispersion is 53.0; in the group of managers of the international companies: KMO =0.74, % of



explained dispersion is 52.6; in the group of Canadian students KMO = 0.70, % of explained dispersion is 50.1.

Results of the test of this technique on cross-cultural validity and reliability of scales have shown that the given technique has sufficient reliability and high cross-country-cultural validity as the same items with high frequency were included in the same factors in four different cultural and national samples in Russia and Canada. Scales have a satisfactory reliability using Cronbach's  $\alpha$ .

*Data analyses strategy*

We began by conducting mean-level analyses of the main variables across the samples, using a t-test for independent samples. These were complemented by the analyses of relationships, using correlation coefficients (Spearman's rank correlation method) and multiple regression analysis (enter method). For the controlling of sample size effects we have used Cohen's d coefficient [Cohen, 1988]. The term effect size can refer to standardized measures of effect (such as [Cohen's d](#)), or to an unstandardized measure. Cohen's d is defined as the difference between two means divided by the standard deviation.

$$d = \frac{\bar{x}_1 - \bar{x}_2}{s}$$

Cohen's d is frequently used in [estimating sample sizes](#). A lower Cohen's d indicates a necessity of larger sample sizes, and vice versa, as can subsequently be determined together with the additional parameters of the desired [significance level](#) and the [statistical power](#) [Kenny, 1987]. Using Cohen's d allows solving the problem of power of the sample. This coefficient allows to decide whether significant differences are obtained due to the big size of the sample or not. If Cohen's d coefficient is higher than 0,7 we can conclude that the effect size is really existing. So, if we will increase the size of the samples, we will definitely receive significant differences between them.

For the computation of results SPSS (Version 11.0) was used and the pairwise method of taking into account missing values was selected, as only 2 % of the values were missing in the combined sample.

**4.THE RESULTS OF THE STUDY**

**4.1.Mean differences between samples**

Firstly we consider the value differences between Russian and Canadian students (see Table 3.

**Table 3.** Cultural Differences in Values between Russian and Canadian Students

<b>Groups</b>	<b>Russians</b>	<b>Canadians</b>	<b>Effect size</b>
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<b>Values</b>	<b>Mean</b>	<b>SD</b>	<b>Mean</b>	<b>SD</b>	<b>d Cohen</b>
Security	4.04***	0.77	3.66***	0.67	0.48
Conformity	3.83	0.79	3.93	0.71	
Tradition	2.75*	0.92	2.99*	0.91	
Benevolence	4.42**	0.70	4.66**	0.70	0.30
Universalism	3.52***	0.77	3.95***	0.75	0.51
Self-Direction	4.70***	0.76	4.43***	0.64	0.30
Stimulation	3.70	1.13	3.89	1.03	
Hedonism	4.26	1.24	4.23	0.99	
Achievement	4.20**	0.80	4.48**	0.66	0.43
Power	3.32***	1.31	2.42***	1.18	0.81
<b>CONSERVATION</b>	3.54	0.51	3.53	0.52	
<b>OPENNESS TO CHANGE</b>	4.21	0.73	4.16	0.55	
<b>SELF-TRANSCENDENCE</b>	3.97***	0.52	4.30***	0.54	0.61
<b>SELF-ENHANCEMENT</b>	3.93**	0.73	3.71**	0.67	0.30

\*\*\* -  $p < 0,001$ , \*\* -  $p < 0,01$ , \* -  $p < 0,05$

As one can see in table 3 Russian students prefer the values of security, self-direction, power and self-enhancement more often than the Canadians, but the latter, in turn, prefer universalism, benevolence, tradition, achievement and the value composite of Self-Transcendence more often than the Russians. Next, we compare the value differences between Russian and Chinese students (table 4).

**Table 4.** Cultural Differences in Values between Russian and Chinese Students

<b>Croups</b>	<b>Russians</b>		<b>Chinese</b>		<b>Effect size</b>
<b>Values</b>	<b>M</b>	<b>SD</b>	<b>M</b>	<b>SD</b>	<b>d Cohen</b>
Security	4.04***	0.77	4.52***	0.73	0.81
Conformity	3.84***	0.79	4.17***	0.63	0.74
Tradition	2.75	0.92	2.91	1.00	0.53
Benevolence	4.42	0.71	4.56	1.48	
Universalism	3.52***	0.77	4.05***	0.61	0.89
Self-Direction	4.70***	0.76	4.30***	0.62	0.55
Stimulation	3.70***	1.13	2.58***	1.14	0.86
Hedonism	4.26***	1.24	3.61***	1.26	0.43
Achievement	4.20	0.80	4.07	0.76	
Power	3.31***	1.31	2.75***	1.24	0.43

<b>CONSERVATION</b>	3.55***	0.51	3.87***	0.43	0.67
<b>OPENNESS TO CHANGE</b>	4.21***	0.73	3.44***	0.73	0.43
<b>SELF-TRANCENDENCE</b>	3.97***	0.52	4.30***	0.86	0.47
<b>SELF-ENHANCEMENT</b>	3.93***	0.73	3.48***	0.74	0.60

\*\*\* - p<0,001, \*\* - p<0,01, \* - p<0,05

Chinese students prefer values of **Conservation** (security, conformity) as well as values of **Self-Transcendence** (universalism) more often than the Russian students. The Russians, in turn, prefer values of **Openness to Change** (self-direction, stimulation) and **Self-Enhancement** (hedonism, power) more often than Chinese students. Table 5 shows the value differences between the Canadian and the Chinese students.

**Table 5.** Cultural Differences in Values between Canadian and Chinese Students

<b>Groups</b>	<b>Chinese</b>		<b>Canadians</b>		<b>Effect size</b>
<b>Values</b>	<b>M</b>	<b>SD</b>	<b>SD</b>	<b>d</b>	<b>Cohen</b>
Security	4.52***	0.73	3.66***	0,67	0.89
Conformity	4.17**	1.03	3.93**	0,71	0.31
Tradition	2.90**	1.00	2.99*	0,91	0.20
Benevolence	4.56	1.38	4.66	0,70	
Universalism	4.04	0.61	3.95	0,75	
Self-Direction	4.30	1.08	4.43	0,64	
Stimulation	2.58***	1.14	3.89***	1,03	0.81
Hedonism	3.61***	1.26	4.23***	0,99	0.74
Achievement	4.07***	0.76	4.48***	0,66	0.61
Power	2.75*	1.24	2.42*	1,18	0.50
<b>CONSERVATION</b>	3.87***	0.43	3.53***	0,52	0.64
<b>OPENNESS TO CHANGE</b>	3.44***	0.73	4.16***	0,55	0.99
<b>SELF-TRANCENDENCE</b>	4.30	0.86	4.30	0,54	
<b>SELF-ENHANCEMENT</b>	3.48***	0.74	3.71**	0,67	0.31

\*\*\* - p<0,001, \*\* - p<0,01, \* - p<0,05

As table 5 shows, the Chinese students prefer values of **Conservation** (security, conformity, tradition) and power more often than the Canadians. The Canadians prefer values of **Openness to**

**Change** (stimulation) and **Self-Enhancement** (hedonism, achievement) more often than Chinese students. Let us further compare the means of attitudes towards innovations between the three groups of our respondents (tables 6-8).

**Table 6.** Cultural Differences in Attitudes towards Innovations for Russians and Canadians

<b>Groups</b>	<b>Russians</b>		<b>Canadians</b>		<b>Effect size</b>
	<b>Mean</b>	<b>SD</b>	<b>Mean</b>	<b>SD</b>	<b>d Cohen</b>
<b>Attitudes towards innovations</b>					
Creativity	3.81***	0.83	3.48***	0.67	0.43
Taking Risk for Achievements	3.12	0.83	3.14	0.69	
Orientation to Future	3.39	0.66	3.47	0.61	
<b>Index of Acceptance of Innovations</b>	3.44	0.63	3.37	0.52	

\*\*\* -  $p < 0,001$ , \*\* -  $p < 0,01$ , \* -  $p < 0,05$

We see significant intergroup differences regarding the value of Creativity for Canadians and Russians.

**Table 7.** Cultural Differences in Attitudes towards Innovations for Russians and Chinese

<b>Groups</b>	<b>Russians</b>		<b>Chinese</b>		<b>Effect size</b>
	<b>M</b>	<b>SD</b>	<b>M</b>	<b>SD</b>	<b>d Cohen</b>
<b>Attitudes towards innovations</b>					
Creativity	3.81***	0.83	3.23***	0.68	0.74
Taking Risk for Achievements	3.12*	0.83	2.86*	0.69	0.31
Orientation to Future	3.39	0.66	3.34	0.57	
<b>Index of Acceptance of Innovations</b>	3.44***	0.63	3.15***	0.52	0.50

\*\*\* -  $p < 0,001$ , \*\* -  $p < 0,01$ , \* -  $p < 0,05$

One can see that such indicators as Creativity, Taking Risk for Achievements and the Integral Index of **Acceptance of Innovations** are significantly higher for Russian students than for Chinese students.

**Table 8.** Cultural Differences in Attitudes towards Innovations for Canadians and Chinese

<b>Groups</b>	<b>Chinese</b>		<b>Canadians</b>		<b>d Cohen</b>
	<b>M</b>	<b>SD</b>	<b>M</b>	<b>SD</b>	
<b>Attitudes to innovations</b>					
Creativity	3.23**	0.68	3.48**	0.67	0.36
Taking Risk for Achievements	2.86*	0.69	3.14**	0.69	0.36
Orientation to Future	3.34	0.57	3.47	0.61	
<b>Index of Acceptance of Innovations</b>	3.15**	0.52	3.37**	0.52	0.40

\*\*\* -  $p < 0,001$ , \*\* -  $p < 0,01$ , \* -  $p < 0,05$

From the data in table 8, it is evident that such indicators as Creativity, Taking Risk for Achievements and the Integral Index of **Acceptance of Innovations** are significantly higher for Canadian students compared with Chinese students. Now we want to refer to possible differences for gender. In Table 9 one finds that women tend to be more benevolent and universalistic whereas men are more self-directed, hedonistic and power and stimulation oriented.

**Table 9.** Gender Differences in Value Priorities (entire sample)

Values	Males (157)		Females(254)		Effect size d Cohen
	M	SD	M	SD	
Security	3.92	0.77	3.96	0.75	
Conformity	3.96	0.79	4.00	0.75	
Tradition	3.11	0.99	2.96	1.11	
<b>Benevolence</b>	4.24***	0.72	4.58***	0.78	0.31
<b>Universalism</b>	3.61**	0.77	3.83**	0.69	0.30
<b>Self-Direction</b>	4.57**	0.83	4.37**	0.72	0.30
<b>Stimulation</b>	4.03***	1.10	3.55***	1.27	0.57
<b>Hedonism</b>	4.00*	1.21	3.76*	1.16	0.40
Achievement	4.25	0.85	4.12	0.79	
<b>Power</b>	3.53***	1.09	3.03***	1.17	0.51
<b>CONSERVATION</b>	3.64	.54	3.59	.50	
<b>OPENNESS TO CHANGE</b>	4.09	.75	3.95	.76	
<b>SELF-TRANCENDENCE</b>	4.12*	.54	4.25*	.69	0.27
<b>SELF-ENHANCEMENT</b>	3.87*	.71	3.66*	.73	0.30

\*\*\* -  $p < 0,001$ , \*\* -  $p < 0,01$ , \* -  $p < 0,05$

The results presented in table 10 demonstrate that men are higher in the indices of Creativity, Taking risk for achievement and the overall Index of **Acceptance of Innovations**.

**Table 10.** Gender Differences in Attitudes towards Innovations (all sample)

Attitudes to Innovations	Males (156)		Females (250)		Effect size d Cohen
	M	SD	M	SD	
Creativity	3.65***	0.68	3.37***	0.79	0.30
Taking Risk for Achievements	3.48***	0.74	3.05***	0.75	0.47
Orientation to Future	3.42	0.73	3.34	0.75	

Index of **Acceptance of Innovations** 3.50\*\*\* 0.31 3.36\*\*\* 0.38 0.30

\*\*\* - p<0,001, \*\* - p<0,01, \* - p<0,05

More detailed gender-related comparisons in the groups have shown that the gender inequality in values and attitudes towards innovations is the highest for Chinese students, the lowest for Russian ones.

Are the cultural differences revealed so far related to differences in value priorities? This forms the the topic of the next section.

#### 4.2. Relations between cultural values and attitudes towards innovations

We tested the relations using Spearman rank correlation and multiple regression analysis by controlling for the demographic variables as well as the interaction of independent variables. The results are presented in tables 11-14.

**Table 11.** Correlations of values and attitudes towards innovations among Russians

Values	Creativity	Taking Risk for Achievements	Orientatio n to Future	Index of Acceptance of Innovations
Security	-,204*	-,120	-,085	-,170
Conformity	-,177*	-,190*	-,081	-,205*
Tradition	-,332***	-,260**	-,225**	-,352***
Benevolence	-,068	-,061	,146	-,053
Universalism	-,137	-,113	,037	-,126
Self-Direction	,337***	,175*	,232**	,309***
Stimulation	,405***	,415***	,169	,408***
Hedonism	,130	,043	-,230**	,024
Achievement	,141	,194*	,140	,191*
Power	,115	,117	-,188*	,071
<b>CONSERVATION</b>	-,421***	-,344***	-,227**	-,428***
<b>OPENNESS TO CHANGE</b>	,492***	,406***	,279***	,482***
<b>SELF-TRANCENDENCE</b>	-,127	-,104	,147	-,112
<b>SELF-ENHANCEMENT</b>	,179*	,181*	-,171*	,137

\*\*\* - p<0,001, \*\* - p<0,01, \* - p<0,05

There are strong positive correlations of attitudes towards innovations with the values of self-direction, stimulation, achievement and value composite of **Openness to Change**, and negative correlations – with values of security, conformity, tradition and value composite of **Conservation** among Russian students.

**Table 12.** Correlations of values and attitudes towards innovations among Canadians

Values	Creativity	Taking Risk for Achievements	Orientati on to Future	Index of Acceptance of Innovations
Security	-,104	,006	-,017	-,049
Conformity	-,072	,085	-,023	,000
Tradition	-,129	-,105	-,117	-,167*
Benevolence	-,102	-,171*	-,124	-,182**
Universalism	,062	-,016	,009	,030
Self-Direction	,358***	,096	,165*	,268***
Stimulation	,191**	,234***	,160*	,251***
Hedonism	,006	,028	,015	,053
Achievement	,030	,055	,130	,095
Power	-,027	,145(*)	,038	,081
<b>CONSERVATION</b>	-,187**	-,027	-,093	-,139*
<b>OPENNESS TO CHANGE</b>	,340***	,232***	,213**	,344***
<b>SELF-TRANCENDENCE</b>	,015	-,117	-,066	-,076
<b>SELF-ENHANCEMENT</b>	-,006	,110	,070	,092

\*\*\* -  $p < 0,001$ , \*\* -  $p < 0,01$ , \* -  $p < 0,05$

Among Canadian students, attitudes towards innovations correlate positively with values of self-direction, stimulation, and the value composite of **Openness to Change**, and negatively – with values of tradition, benevolence and value composite of **Conservation**.

**Table 13.** Correlations of values and attitudes towards innovations among Chinese students

Values	Creativity	Taking Risk for Achievements	Orientatio n to Future	Index of Acceptance of Innovations
Security	-,296**	-,164	-,044	-,229*

Conformity	-,215*	-,072	-,018	-,130
Tradition	-,028	-,121	-,075	-,078
Benevolence	,041	,099	,104	,097
Universalism	,038	-,056	,052	,021
Self-Direction	,227*	,194	,036	,182
Stimulation	,318***	,368***	-,019	,288**
Hedonism	-,020	-,153	-,139	-,166
Achievement	-,026	,163	,121	,117
Power	-,072	-,114	-,108	-,119
<b>CONSERVATION</b>	-,323***	-,203*	-,085	-,263**
<b>OPENNESS TO CHANGE</b>	,352***	,373***	,040	,316**
<b>SELF-TRANSCENDENCE</b>	,059	,024	,084	,066
<b>SELF-ENHANCEMENT</b>	-,060	-,079	-,094	-,108

\*\*\* -  $p < 0,001$ , \*\* -  $p < 0,01$ , \* -  $p < 0,05$

The Chinese sample revealed positive correlations of attitudes towards innovations with values of stimulation and **Openness to Change**, and negative ones with values of security, conformity and the value composite of **Conservation**. Now we present the results for the the relations between value composites and the Integral Indices of Innovation in the unified sample and in the three samples separately in table 14 using multiple regression analysis (step-wise method)

**Table 14.** The relations of values composites and the Integral Indices of Acceptance of Innovations

Groups	Dependent variable	Independent variables				$R^2$
		Conser- vation B	Openness to Change $\beta$	Self- Transcenden- ce $\beta$	Self- Enhancemen- t $\beta$	
Unified	Index of Acceptance of Innovations		.46***			.23
Russians	Index of Acceptance of Innovations	-.18*	.40***			.33
Canadians	Index of Acceptance of Innovations		.38***			.14
Chinese	Index of Acceptance of Innovations		.43***	.30**		.24

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ;



Multiple regressions, revealed a universal positive relationship between the value composite **Openness to Change** and the **Integral Index of Acceptance of Innovations** in the unified sample as well as in the independent samples of Russian, Canadian and Chinese students.

To take into account the relations between the independent variables and to test statistically the invariance of parameters over countries, we used a Multi-Group MIMIC Model. The results are now presented in the next section.

#### **4.3. A Multi-Group MIMIC Model for the Prediction of Attitude towards Innovation: Comparison of the Canadian, Chinese and Russian Samples.**

In this section we want to report the results of a test of a multigroup MIMIC model which includes gender and age as additional predictors for innovation and values. By employing this method we want to reach the following research goals (Muthen 1989):

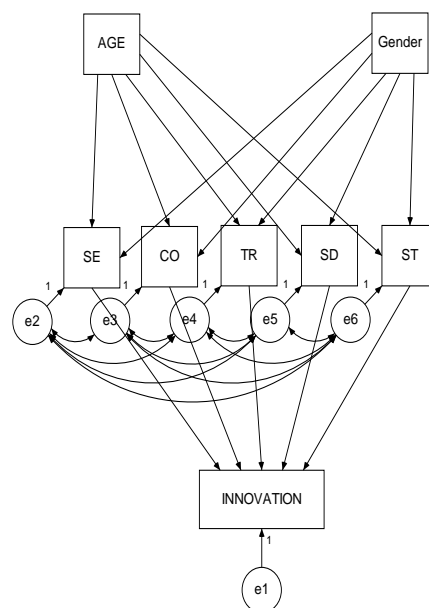
- 4) Such a model allows us to test systematically full vs. partial mediation of the effects of gender and age on attitude towards innovation via values. The issue of mediation has a long tradition in psychology (MacKinnon/Fairchild 2009) As soon as one assumes that there are intervening variables in a given model this problem arises. In our model, for example, we do not know for sure whether age and gender influence the attitude towards innovation only via the ten values or a subset of them(full mediation) or whether they also have direct effects on the attitude towards innovation(partial mediation). In the last years the structural equation approach has been used more and more often to test full vs. partial mediation in a straightforward and more elegant way compared with the classical approaches (MacKinnon/Fairchild 2009) Therefore we use this approach here.
- 5) The multi-group procedure allows to test statistically whether the relationships between gender, age and values on the one hand and innovation on the other hand are invariant over the three countries Canada, China and Russia. This approach allows to test cross-sample constraints such as the test of equality of coefficients between groups. In our case, we want to test whether, for example, the effects of gender and age on values are invariant over the three countries. Furthermore one can test whether metric invariance is given for the measurement instruments, which means that in the case of partial metric invariance at least two items per construct have equal factor loadings beside random fluctuations (Byrne et al. 1989).
- 6) The MIMIC Model itself allows to model both the effects of demographic variables as formative indicators (see Jones 2006, Woods 2009) and the effect of latent endogenous (dependent) on their reflective indicators. These formative indicators or "cause" variables

like age and gender influence values and innovation as constructs measured by reflective indicators.

Our model is a combination of a mimic model and the multiple group procedure of structural equation modeling, which allows for the adequate testing of our research questions. It can be seen as a special case of the generalized latent variable model (Skrondal/Rabe-Hesketh, 2004). As the sample size for every country was not very high, we could not test the invariance of the factor loadings of the SVS over the three countries. However, we applied a confirmatory factor analysis to the innovation scale and deleted 6 items because of low loadings. For the resulting items metric invariance could be established, which allows the comparison of regression coefficients over the three countries (Vandenberg/Lance 2000). The model specifications for the fully and partially mediated models are given in Figures 1 and 2.

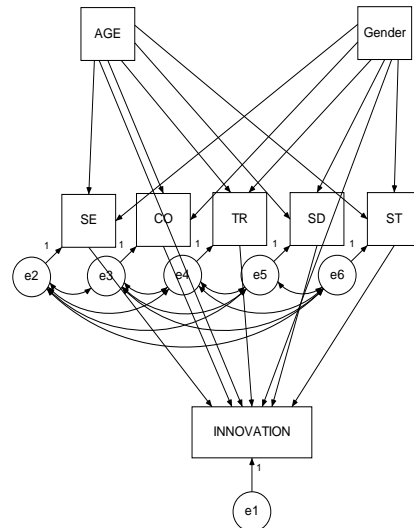
**Figure 1.** Fully mediated model

## Values and Innovation: Fully mediated model



**Figure 2.** Partially mediated model

## Values and Innovation: Partially mediated model



In figure 1 (fully mediated model) one can see that age and gender have no direct relationships(paths) with innovation. The basic theoretical idea is that the effect of age and gender is only operating via their influence on the values Security, Conformity, Tradition, Self- Direction and Stimulation. Therefore, there are only paths leading from the demographic variables to these five values. In contrast to that one can see in figure 3 that according to this model age and gender have an indirect effect on attitude towards innovation such as in the model in figure 2. However, in addition we see in figure 3 that both gender and age have also direct and significant direct effects symbolized by the directed paths on attitude towards innovation. Finally, we want to test whether the models in figures 2 and 3 and the estimated coefficients are equal by using the multiple group technique within structural equation modeling. As the fully mediated and the partially mediated model are nested models, we used the chi square difference test as a criterion to decide between them. In addition, we employed as a criterion the CFI difference of .01 proposed by Cheung/Rensvold, 2002.

The partially mediated model corresponds with both the above mentioned fit criteria. Therefore we now present the estimates only for this model. In Table 14, one finds the standardized regression coefficients for the whole model based on the maximum-likelihood estimation using the program AMOS 18. One can see, that the higher the age, the higher the Security and Tradition values both in Canada and China but not in Russia. However, only in China does age have a

positive significant effect on Conformity value. The effect of age on Stimulation is positive in China whereas in it has a negative effect. In Canada there is no effect at all. Gender only has an effect on Stimulation and Conformity in Canada and on Security in China. Only in Russia Tradition has a negative significant effect on attitude towards innovation, whereas Stimulation plays a significant and substantial effect in all three countries. Self Determination has, as predicted, a positive effect on attitudes towards innovation. However this effect is not significant at the 5% level in China. Age has no significant effect in all countries but this may be due to the composition of the sample, which has only a small range and variance of age. Gender has only a direct effect in China on attitude towards innovation, which means that in China, men have a more positive attitude towards innovation. This is the only direct effect of the two demographic variables on attitude towards innovation. In all other cases the effects of gender and age are fully mediated by values. All coefficients are at least significant at the 5% level.

**Table 14. Standardized Coefficients for the MIMIC Model**

	<b>Model 2</b>	<b>Model 2</b>	<b>Model 2</b>
	<b>PM</b>	<b>PM</b>	<b>PM</b>
<b>Standardized</b>	Canada	China	Russia
	Estimate	Estimate	Estimate
<b>SE &lt;--- age</b>	0,135	0,214	0,001
<b>CO &lt;--- age</b>	0,084	0,28	-0,112
<b>TR &lt;--- age</b>	0,182	0,208	-0,017
<b>SD &lt;--- age</b>	0,046	0,147	-0,136
<b>ST &lt;--- age</b>	0,111	0,211	-0,281
<b>ST &lt;--- sex</b>	-0,15	-0,063	-0,131
<b>SD &lt;--- sex</b>	-0,126	0,057	0,007
<b>TR &lt;--- sex</b>	-0,034	0,026	0,002
<b>CO &lt;--- sex</b>	-0,134	0,076	0,099
<b>SE &lt;--- sex</b>	-0,121	0,286	0,074
<b>INNOVN &lt;--- SE</b>	-0,115	-0,026	-0,029
<b>INNOVN &lt;--- CO</b>	0,168	-0,15	-0,003
<b>INNOVN &lt;--- TR</b>	-0,095	-0,101	-0,238
<b>INNOVN &lt;--- SD</b>	0,309	0,22	0,336
<b>INNOVN &lt;--- ST</b>	0,307	0,276	0,415
<b>INNOVN &lt;--- age</b>	0,078	-0,037	0,102
<b>INNOVN &lt;--- sex</b>	-0,053	-0,262	-0,096

## 5.DISCUSSION OF RESULTS

Our research revealed cultural differences in values as well as in innovation attitudes between respondents in the three cultural groups. The cultural differences in value priorities and innovation attitudes are compatible with each other, reflecting differences in the Traditionalism-versus-Modernism continuum, with the culture of China tending to be closer to the pole of Traditionalism (the values of **Conservation and Self-Transcendence**, promoted the group interests in survival and harmony), whereas the cultural patterns of Russians and Canadians lean closer towards Modernism (the values of **Openness to Change and Self-Enhancement** promoted the individual interests in self-development). The attitudes towards innovations are more salient among the Canadians and Russians, than among the Chinese. From this it follows that the more modernized a culture is, the more innovative its members are.

Besides that proposition it should be explained why Chinese attitudes towards innovations are less salient in comparison with Canadians and Russians from a Chinese perspective (see Leung and Morris, 2011). Low levels of innovative attitudes among Chinese students and the absence of its' relations with values of Self -Direction may be explained by the fact that striving for innovation is hardly a high value in more traditional cultures, and because of this, one's innovative behavior cannot ensure a sense of fullness of life. This explanation is compatible with Lubart's suggestion that the element of novelty may not be well suited to non-Western cultures (1999). The Western conception of creativity is primarily concerned with innovations, whereas the Eastern conception of creativity is more dynamic, involving the reuse and reinterpretation of tradition rather than breaks in tradition (Raina, 1999; Paletz, Peng, 2008). Yao, Yang, Dong, and Wang (in press) argued that the Chinese may be unwilling to express creative ideas because of the collectivist pressure for conformity and the need to take instructions from superiors as a result of high power distance. Research in China shows that the positive relationship between creative ideas and innovative behavior was moderated by *zhong yong* (the preference for moderation and the avoidance of extreme positions) and shyness. Specifically, high *zhong yong* and shyness tend to suppress the expression of creative ideas (Leung, Morris, 2011). Leung, Chen, Zhou, and Lim (2009) examined the implications of two Chinese cultural constructs, face and *renqing*, for innovative behavior. Face refers to the concern for a positive self- and public image, and *renqing* refers to the tendency to be compassionate toward others and to offer them favors. People with a positive face are likely to offer and receive *renqing*, and these two constructs are often viewed as two related facets of the Chinese relational orientation (Cheung et al., 1996). These findings might explain the higher significance of Self-Transcendence values for Chinese students (especially for women) and, possibly, their positive impact on the attitudes to innovations among Chinese students.

The results of gender differences in values confirm most other studies (Schwartz, Rubel, 2005; Meuleman et al. 2012) which imply that women tend to be more benevolent and universalistic whereas men are more self-directed, hedonistic and power and stimulation oriented. According to evolutionary perspective and social roles theory, men prefer self-direction and stimulation values more than women due to greater male competitiveness and the different placement of the sexes in the occupational world. It is reflected in behavior such as self-reliance, independence, risky behavior and innovation (Schwartz, Rubel, 2005). The results of the multi-group MIMIC model confirmed this fact demonstrating the direct effect of gender in China on attitude towards innovation, which means that in China, men have a more positive attitude towards innovation. We may suppose the culture influence attitudes towards innovations through gender-related cultural norms, which don't encourage female's strivings for novelty and originality, supporting cultural norms of *zhong yong* and shyness and not taking into account the level of individual values. It is an example of unpackaged culture's impact on social behavior.

To what extent are the attitudes towards innovations related to value priorities? Our research has shown that there are strong positive relationships between the values of **Openness to Change** (self-direction, stimulation) and attitudes towards innovations. This finding agrees well enough with the results obtained by others (Shane, 1992, 1995; Dollinger, Burke & Gump, 2006). The suggested explanations need to be tested and verified in further research. In any case, however, the fact that there are culturally specific relations of values with attitudes about innovation highlights the fact that we must consider specific features of a culture when introducing innovative patterns to it.

## 6.CONCLUSION

In general, the results supported our hypotheses.

1. There are cultural differences in value priorities: Russians prefer the values of **Self-Enhancement** more often than the Canadians, but the latter prefer values of **Self-Transcendence** more often than Russians. Chinese students prefer values of **Conservation** more often than the Russians and Canadians.
2. Russians and Canadians prefer values of **Openness to Change** more often than Chinese students. These differences, in our opinion, reflect differences in the Traditionalism-vs.-Modernism continuum, with the Chinese culture tending to be closer to the pole of Traditionalism, whereas the cultural patterns of Russians and Canadians lean towards Modernism.

3. There are significant cultural differences in **innovative attitudes** among Canadian, Russian and Chinese college students. The Canadians' and Ethnic Russians' attitudes towards innovations are more positive, while the Chinese' ones are less positive. It might be explained by different conceptions of creativity and innovations in Western and Eastern traditions (Raina, 1999; Paletz, Peng, 2008) and implicit cultural norms and behavior prescriptions in the Chinese culture (Leung and Morris, 2011).
4. There are certain universal relationships in the three cultural groups, with the values of Openness to Change being conducive to innovative attitudes, and the values of Conservation impeding them. This conclusion is compatible with the results obtained by other researchers (Shane, 1992, 1995; Dollinger, Burke & Gump, 2007).
5. There are culturally specific features in some relations of values and innovative attitudes: thus, among Russians the values of Achievement are positively related with innovative attitudes, among Canadians, values of Benevolence are negatively related with innovative attitudes and among Chinese values of Self-Direction have no relations with attitudes towards innovations. It might be explained by culturally specific values priorities and implicit theories of creativity and innovations.
6. The type of Values-Innovation mediation is different in the three countries. Whereas in Russia and Canada the effects of gender and age are fully mediated by the values, this is not true for the effect of gender in China, which also has a direct effect on innovation.
7. The regression coefficients of age and gender on values differ between Canada, China and Russia, which reflects cultural differences in the impact of age and gender on value priorities.

We fully recognize the serious limitations of this exploratory study: small students' samples, low heterogeneity in socio-demographic characteristics, first of all in age, different types of universities and their location (the capital in Russia and the provincial towns in Canada and China). Among the method's limitations are very close measurements of values and attitudes towards innovations and measurement only of attitudes towards innovations, not of the creative (innovative) behavior. Incidentally, this exploratory study pushes us to investigate culturally specific implicit theories of innovation and ascriptions of innovators' psychological qualities, which can help us to understand the socio-psychological roots of accepting and rejecting innovations in different socio-cultural contexts. Further research is needed to study the relationships revealed between culture and innovations in a more profound way.

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# Values and social capital as predictors of attitudes towards innovation

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## **Abstract**

This study examines the relationship of values and social capital with attitudes towards innovations. The respondents (N = 1238) were asked to fill in a questionnaire, which included the Schwartz value survey SVS-57, a self-assessment scale of innovative personality traits [Lebedeva, Tatarko, 2009], and a method of assessing social capital [Tatarko, 2011]. The results of the correlation analysis revealed a positive correlation between values of Openness to Change and a positive attitude to innovation. It was also found that the components of social capital (trust, tolerance, perceived social capital) positively correlated with attitudes to innovation. The empirical model obtained by means of a structural equation modeling generally confirmed the hypothesis of the study and demonstrated the positive impact of the values of Openness to Change and social capital on attitudes towards innovations in Russia.

## **Keywords**

creativity, innovation, attitude to innovation, social capital, perceived social capital, individual values

## **JEL Classification**

A13

## **1.INTRODUCTION**

In today's world, the transition of national economies into an innovative phase of development is a necessary condition for economic growth and prosperity. In consistency with this purpose, many countries develop national innovation systems, increase public and private investment in research and development and form special clusters of innovation such as free economic zones, techno-parks and centers of excellence. However, as a rule, little attention is paid to the analysis of national cultural identity, and consequently the planned processes are impeded by an unaccounted factor; the culture and social context in which innovations are designed and disseminated. In Russia, the proportion of innovative products is extremely smaller compared to other European countries. And here, in our opinion, the impediments to innovation development in general and to the market in particular are not technology-related, but rather stem from cultural implications.

According to scientists, the innovation process must involve the organizational and economic, social and cultural conditions of innovation, as it encompasses a certain interaction between units and organizations, the training and retraining of specialists, planning and designing incentive schemes and overcoming adverse effects [Chepurensko, 2004]. Innovations can be divided into two key groups: technological innovations and social innovations. Social innovations differ from technological innovations in that they have a closer relationship to society and culture and that their application is more dependent on user characteristics. Social innovation is also a result of a change in 'game rules' and typical models of behavior. It is believed that social innovation is especially difficult to implement since the uncertainty of its parameters and results allow the simulation of the required changes without its actual implementation, which is often the case in Russia. What determines the reluctance towards social innovations and resistance to them? First of all, the subjects of these innovations are people themselves, their status, habits, attitudes, behavior, values and beliefs. The second factor is the traditional lifestyle of society, its social institutions, current economic and political systems and models of human relations. Behind all these is culture as a meaning generating construct (values and implicit theories) and features of social psychology.

## **2.THEORETICAL BACKGROUND**

### **2.1. Creativity and Innovativeness**

Modern scientific literature devoted to the study of creativity and innovativeness frequently addresses the similarities and differences between these concepts. Creativity is the intellectual and social process [Lazzarato, 1996], boosted by conscious or unconscious ability of generating

ideas, concepts, and associations. Innovation is the successful exploitation of new ideas; it is a profitable outcome of the creative process, which involves generating and applying products, services, procedures, and processes that are desirable and viable. Naturally, people who create and people who innovate can have different attributes and perspectives [Serrat, 2009]. Creativity is often viewed as a certain part of innovation. Thus, West, examining the subjects of innovative activity, noted that innovators are people with enhanced creativity and innovativeness, capable of producing new ideas and applying them [West, 2004]. Therefore, innovativeness presupposes creativity, but creativity per se is not enough to demonstrate persistent capacities for innovation [Styhre & Börjesson, 2006]. Creativity precedes innovation. Creativity does not occur exclusively in a person's head but in interaction with a social context. For any successful organization, prone to innovations, it is essential to have knowledge of an organizational context and inter- and intra- organizational relationships, including the creative potential of the individuals and teams in general.

For years, psychologists in the West and ordinary people ascribed creativity only to personal and not to social or cultural factors. Therefore, studies of creativity focused on personality traits [Barron & Harrington, 1981; Helsen, 1996], cognitive processes [Sternberg, 1988] and the life paths of creative people [Gardner, 1993]. In Western psychology, creativity is most often defined as the attribute of an individual or a process capable of providing a new, suitable, nonstandard solution to a problem [Mayer, 1999]. Empirical studies on creativity initially focused on the individual, and many recent papers continue to explore the features that distinguish creative people from the rest. Amabile [1996, p. 90] lists the creative personality traits that appear repeatedly in scientific literature:

7. High degree of self-discipline in matters concerning work.
  - Ability to delay gratification.
  - Perseverance in the face of frustration.
  - Independence of judgments.
  - Tolerance for ambiguity.
  - A high degree of autonomy.
  - An absence of sex role stereotyping.
  - An internal locus of control.
  - A willingness to take risks.
  - A high level of self-initiated, task-oriented striving for excellence.

There is some evidence that cultures can encourage or frustrate creativity. Arieti [1976, p. 303] studied cultural influences on creativity and suggested that the potential for creativity is deemed much more frequent than its occurrence. Some cultures promote creativity more than others, and he labeled these cultures as 'creativogenic'.

The study of innovation has evolved drastically over the last forty years. At present, innovation is viewed as a process, the success of which rests upon interactions and exchanges of knowledge. This understanding of innovation has generated the following consequences: firstly, innovation is no longer conceived as a discrete event involving only the development of a technical solution, but as a process also involving social interactions. Secondly, innovation is no longer explained by the sole combinations of tangible forms of capital (physical, financial and etc.), but also by combinations of intangible forms of capital, especially social capital. In studies of innovation, much attention has been paid to the examination of the process and its resulting components. However, it is not less important to study the characteristics of an agent of innovation, which are related to his/her ability to implement and evaluate these ideas. These traits are labeled as "innovativeness." In a general sense, innovativeness refers to the ability to adopt and apply new ideas and the creation of new products [Thompson, 1969; Styhre & Börjesson, 2006; Rogers, 2003; West, 1997]. Thus, innovation is the successful implementation of emerging creative ideas, while innovativeness reflects the ability to apply these ideas [Hennessey & Amabile, 2010]. Some authors view innovativeness as the ability to launch new ideas into a system by importing these ideas from outside the system and as the ability to effectively present these ideas to the public [Grewal, Mehta, and Kardes, 2000; Larsen and Wetherbe, 1999].

Today, there are a number of discussions on the classification of subjects of innovative activity. One of the most popular classifications of participants of the innovation process - the theory of Diffusion of Innovations proposed by E. Rogers [2003] - categorizes them as innovators directly involved in the process and a majority (adopters), who are the recipients of innovations:

8. Innovators are characterized by creativity and the ability to take risks for the sake of new ideas
9. Early adopters usually accept new ideas immediately and are able to disseminate innovative technologies among other adopters
10. Early majority, who accept an innovation after a while
11. Late majority, who may take quite a long time to adopt new technologies, consisting mainly of skeptics
12. Laggards, who are often conservative and try to stick to "traditions".

The Diffusion of Innovations theory seeks to explain how, why and at what rate new ideas and technologies spread through cultures, groups and organizations [Rogers, 2003]. The Diffusion of Innovation is a process by which new ideas, technologies, and offers spread via communication channels among the members of a social system within a certain period of time. A social system should be understood as a group of independent units engaged in a common process. This theory defines innovation as an idea or object that is perceived as new by an adopter. The process of

emergence and implementation of new ideas and technologies is not always smooth. In order for them to function freely in society, the system of relationships and values of the society must be in compliance with the conditions of introducing and spreading innovations. Therefore, it is necessary to examine the social and cultural determinants of innovation and innovativeness.

## **2.2. Socio-cultural predictors of innovativeness**

Studies in cross-cultural psychology and related disciplines indicate that basic cultural values influence not only economic development, health, population, life expectancy, perception of well-being and happiness, but also creativity and innovative dispositions of an individual [Inglehart & Baker, 2000; Diener et al., 2000; Triandis, 1994; Shane, 1992, 1995]. However, the relationship between cultural values on the one hand, and innovation and creativity of the members of this society on the other hand, is poorly studied. Shane carried out a study and described its results in an article titled "Why do some societies invent more than others?" [Shane, 1992]. He identified two cultural dimensions affecting the degree of innovativeness of society: the degree of hierarchy (horizontal-vertical) of social structure, and individualism (the priority of individual goals over group goals). The results of studies in the U.S. [Shane, 1992] showed that individualistic and non-hierarchical ("horizontal") societies are more creative and more innovative. This is not surprising, since the psychological characteristics of innovation require a certain environment; equality in relations, equal opportunities for all, promotion of individual development, presence of some degree of freedom, good communications, and in particular, the opportunity to freely express one's thoughts and feelings. Another study also carried out in the USA [Dollinger, Burke & Gump, 2007] revealed that the more creative students differ from their peers in their value systems. Performance on test items in new creative ways positively correlated with such individual values (according to Schwartz) as Self-Direction, Stimulation and Universalism and correlated negatively with the values of Tradition, Security and Power. This study confirmed the initial assumption that creativity depends on the value priorities of an individual. A study by Lebedeva, conducted on samples of Canadian, Russian and Chinese students [Lebedeva, 2011] highlighted the cross-cultural differences in individual values of Russian, Canadian and Chinese students. The Russian students preferred values of Openness to Change and Self-Enhancement; the Canadian students preferred the values of Openness to Change and Self-Transcendence; and the Chinese students favored the values of Conservation and Self-Transcendence.

According to Schwartz, the value-oppositions are central to a person's self-conception and motivate a person towards corresponding behavior in terms of benefit / cost [Schwartz, 2006]. Within this paradigm, behavior consistent with the values of Conservation may lead to social approval, and the cost of rejecting these values is social disapproval or threat to security.



Openness to Change values motivate our quest for inner freedom, creativity, curiosity, pleasure, and the rejection of these values indicates rejecting development and expression of individuality. Thus, it can be assumed that modernization contributes to the dynamics of value preferences from the pole of Conservation to the pole of Openness to Change. According to foreign and domestic research as well as the theoretical model of Schwartz values, the values of Openness to Change (Self-Direction, Stimulation) and the value of Universalism contribute to the creativity and innovativeness of an individual.

Scientific literature recognizes the importance of social capital as a key asset in the manifestation of innovation at organizational level [Calantone, Cavusgil, & Zhao, 2002; Hult, 2002; Hult, Hurley & Knight, 2004; Lu & Shyan, 2004; Song & Thieme, 2006]. For example, organizations face the complex structure of the environment, increasing environmental pressures, global markets with different rules and increase in competition. Product life cycles have dramatically shortened; consumers are a demanding community and want something new every day. Thus, firms have to become more skilled in the production of innovations, since their products and services remain in the market for a shorter period time. The ability to change, including the ability to innovate, is essential for this process. The concept of human capital preceded the development of the notion of social capital (Putnam, 1993; Coleman, 2001). Social capital can be defined as a resource contained in social networks and accessible to its actors. Therefore, this notion has two important components: (1) resources that social relations contain, but not people, and (2) access for actors to such resources (Hauberer J.,2011)

The contribution of social capital to innovation lies in the fact that it reduces transaction costs between firms and other actors, bargaining and decision costs, and policing and enforcement costs [Maskell, 1999]. Social community as an integrity begins to possess social capital as a set of instruments for achieving its aims: compliance without sanctions, self-organization (communities, solidarity) and political activity. But the basis of social capital is people's relations, their attitude to the closest surrounding (trust, tolerance), attitude to the community as a whole (perceptible social capital, social trust), and their attitude to their belonging to this community (identity). All these types of attitude make up the social-psychological capital of the group. They are contributed to the group by separate people but belong to the group as a whole (Tatarko, 2012). Firms with a large stock of social capital will always have a competitive advantage. This advantage becomes even bigger when globalization augments the need for coordination between and among firms [Maskell, 1999].

On a social level, social capital is connected to characteristics of social structure that can increase the efficiency of social development. They are: trust, interactions standards and social network

density. Dakhli and de Clercq describe the influence of social capital on innovation as forming the innovative milieu [Dakhli & de Clercq, 2004]. Innovations are not implemented and disseminated in isolation. There has to be interaction with the environment. First of all, innovation significantly depends on the spread of information, especially in high-technological fields [Fukuyama, 2000]. Further specialization and the creation of more complex technologies demand cooperation. Networks consist of ties between people and, through them, between firms too. These ties facilitate and accelerate information exchange and also lower the costs of information search. Connecting different creative ideas and thoughts can lead to unusual combinations and radical innovations [Subramaniam, Youndt, 2005]. In addition, networks not only facilitate the innovative behaviour itself, but also help and accelerate the distribution of changes [Abrahamson & Rosenkopf, 1997]. However, the information exchange via networks cannot work without interpersonal trust [Tsai & Ghoshal, 1998].

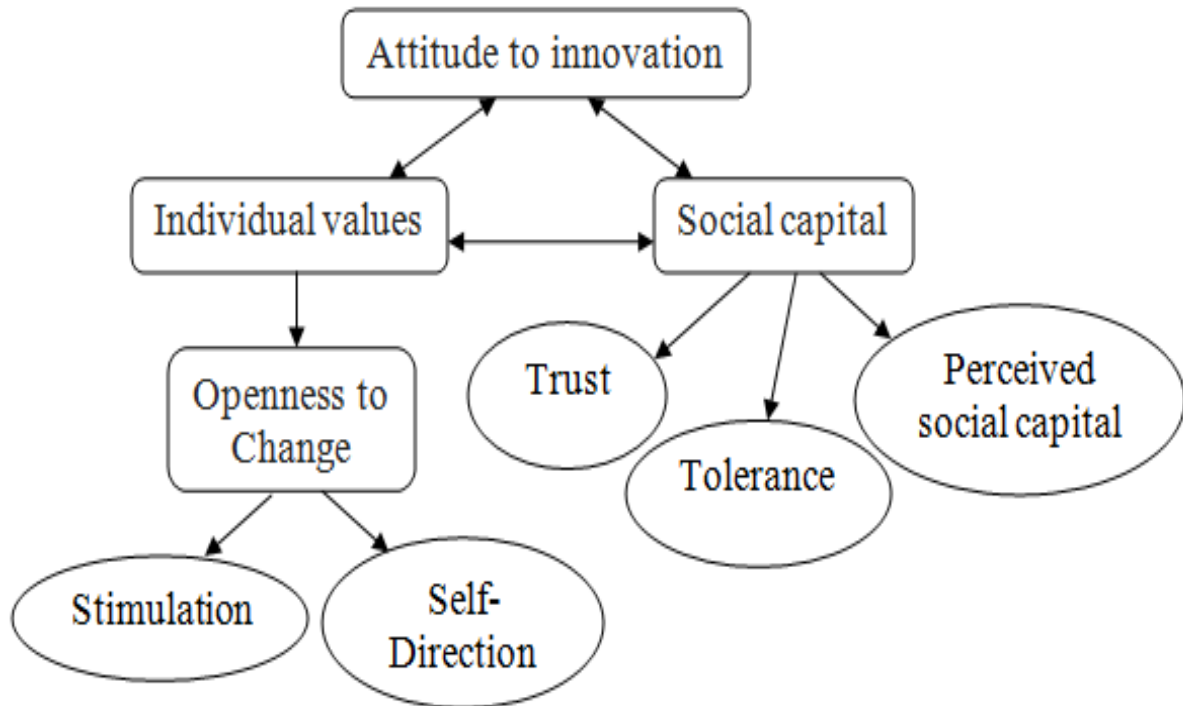
Trust can influence innovation through many mechanisms. First, the higher the general trust, the lower the monitoring costs of possible malfeasance or non-compliance by partners [Keefer, 1997; Tamaschke, 2003]. Consequently, higher trust enables firms to spend more time and finances on innovative activities. Secondly, more trust encourages investors to invest more in big projects [Akçomak et al., 2006]. Thirdly, in case of an increase in general trust, human capital is more important [Knack & Keefer, 1997]. Thus, the labor force is likely to have higher skills and education that are needed for innovative activity. Fourthly, trust between firms and the development of cooperation may lead to more radical innovative projects [Ackomak et al., 2006].

Diverse forms of social capital influence the decision to innovate and, more importantly, an increase in social capital contributes the likelihood of innovation in firms. The level of social capital determines the radicalness of innovation. Social capital taking the form of research network assets contributes more than any other explanatory variable to explaining the radicalness of innovation. The second variable that exerts the strongest impact on the radicalness of innovation is the number of different advanced technologies employed by firms for production [Landry, Amara, Lamari, 2002]. The study by Subramaniam and Youndt [2005] showed that social capital influenced positively both the frequency and the radicalness of innovative behavior. Ackomak and ter Weel [2006] analyzed European regional-level data and found that trust had a positive influence on the number of patent applications.

The analyzed literature on the relationship between social capital and attitudes to innovation allow us to assume that such components of social capital as trust, tolerance, perceived social capital, which characterizes social capital in the theoretical approach developed by IRTL SCI [Tatarko, 2011], contribute to creativity and a positive attitude to innovation. The analysis of scientific

literature on the socio-cultural factors of innovation formed the basis for constructing a theoretical model of the relationship of individual values and social capital with attitudes to innovation, presented in Figure 1, and for the hypotheses of empirical research.

**Figure 1.** Theoretical model of the relationships of values and social capital with attitude to innovation



General hypothesis: Individual values of Openness to Change and social capital contribute to a positive attitude towards innovation

Alternative hypotheses:

- d) Values of Openness to Change promote a positive attitude towards innovation.
- e) Trust, Tolerance and Perceived social capital contribute to a positive attitude towards innovation.
- f) Values of Conservation and Self-Direction, expressing the interests of a group, positively correlate with the dimensions of social capital.
- g) Social Capital, both directly and through the value of Openness to Change, positively influences the attitude towards innovation.

### 3. THE EMPIRICAL EXAMINATION OF THE RELATIONSHIP OF VALUES AND SOCIAL CAPITAL WITH ATTITUDES TOWARDS INNOVATION

**The aim of the research:** identifying the relationship of values, social capital and attitudes

towards innovation.

**Objectives of the study:**

2. To identify the relationship between Schwartz value; oppositions and attitudes towards innovation.
3. To identify the characteristics of the relationship between social capital and attitudes towards innovation in Russia.
4. To construct an empirical model of the relationship of values and social capital with attitudes towards innovation in Russia, using structural modeling with latent variables (SEM).

**Methodology**

**The participants of the study.** The study involved people from four federal districts (Central, North Caucasus, Far East, Volga), aged from 19 to 40. The description of the sample is presented in Table 1. A total of 1238 respondents participated in the study.

**Table 1** - The composition of the sample

	Number	F (num)	F (%)	M (num)	M (%)	Age Mean	Age Mode	Age Median
Russian respondents	1238	641	52%	597	48%	34	19,5	32

The study used a socio-psychological survey. For this a special questionnaire was developed, which included both existing and new research methodologies developed in the International Research and Training Laboratory of Socio-Cultural Research at the HSE.

The questionnaire included the following methods:

1. Schwartz’s value survey -SVS-57. Schwartz’s value survey for analyzing cultural value orientations translated into Russian by Lebedeva and adapted in a number of studies [Lebedeva, 2000; Lebedeva, Tatarko, 2007]. We calculated the arithmetic means of the four value oppositions, which, according to Schwartz’s theory, include 10 groups of individual values (Schwartz, 1992.) Conservation values: (Security, Conformity, and Tradition) contradict with Openness to Change values (Stimulation, Self-Direction, and Hedonism). Self-Transcendence values (Universalism and Benevolence) contradict with Self-Enhancement values - emphasis of the “self” (Power, Achievement, and Hedonism).
2. The self-assessment scale of innovative personality traits (Lebedeva, Tatarko, 2009) was used to analyze the innovative traits. Respondents were presented with brief descriptions of different people (a total of 12 statements), which they had to assess

according to the degree of similarity with themselves on a 5-point scale (from "not at all like me" to "very much like me"). Furthermore, in accordance with the key, the average values on the scales "Creativity," "Risk for the sake of success", and "Focus on future" were calculated. The general index of innovativeness was calculated as the average of these scales.

3. The method of estimating social capital was developed by the International Research and Training Laboratory of Socio-Cultural Research [Tatarko, 2011]. In this case, the following parameters had to be evaluated: a) perceived social capital, b) the level of interpersonal trust, and c) tolerance towards representatives of other groups.

a) Perceived social capital. This indicator is calculated as the arithmetic mean of the five items assessing perceived social capital of an individual in different areas. The respondents were asked to evaluate the typicality of behavior ("trusting each other", "behaving respectfully towards each other", "treating people around as equals", "being prepared to share material things", "being prepared to share thoughts, ideas, feelings of other people who need it", "seeking to understand and support other people") for the people around them on a 5-point scale (from 1 - "not typical" to 5 - "very typical").

б) General level of trust. This indicator was measured using a Likert scale from 1 ("one must be careful with people") to 7 ("most people can be trusted") and allowed to evaluate to what extent an individual was inclined to trust other people. This item is adopted from the World Values Survey.

в) Tolerance towards representatives of other groups. This indicator is calculated as the arithmetic mean of 4 items assessing tolerance. Respondents had to rate the degree of tolerance of the people around them towards the representatives of certain groups (ethnic minorities, other religions, sexual minorities, dissidents (people with different political beliefs)).

#### **4. RESULTS OF THE STUDY**

In order to test hypothesis 1, Spearman's Rank Order correlation of the relationships between personal values and attitudes to innovation was carried out (see Table 2, only significant relationships are indicated).

**Table 2.** The relationships between values and iattitudes towards innovation (N=1238)

	Risk for the sake of			
	Creativity	success	Focus on the future	Innovativeness index
Openness to Change	.38 <sup>***</sup>	.41 <sup>***</sup>	.17 <sup>***</sup>	.40 <sup>***</sup>
Conservation	-.24 <sup>***</sup>	-.28 <sup>***</sup>	-.15 <sup>***</sup>	-.29 <sup>***</sup>
Self – Transcendence	-.07 <sup>**</sup>	-.19 <sup>***</sup>		-.13 <sup>***</sup>
Self- Enhancement		.25 <sup>***</sup>	.10 <sup>***</sup>	.16 <sup>***</sup>

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001

From the data presented in Table 2, we can note that the value of Openness to Change had a strong positive correlation with all the variables that reflect the attitude to innovation. The value of Conservation had a strong negative correlation with all the indicators of the attitude to innovation. Self-Transcendence negatively correlated with Creativity, Risk for the sake of success and the Index of innovativeness. A strong positive correlation with the value of Self-Enhancement with Risk for the sake of success, Focus on the future, and Innovativeness index was also revealed.

Next, to test hypothesis 2, we examined the obtained relationship between the components of social capital and attitudes to innovation (see Table 3)

**Table 3.** The relationship between the indicators of social capital and attitudes towards innovation (N=1238)

	Risk for the sake of			
	Creativity	success	Focus on the future	Innovativeness index
General level of trust			.12 <sup>***</sup>	.07 <sup>**</sup>
Perceived social capital	.11 <sup>***</sup>	.14 <sup>***</sup>	.13 <sup>***</sup>	.16 <sup>***</sup>
Tolerance	.11 <sup>***</sup>		.12 <sup>***</sup>	.10 <sup>***</sup>

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001

Table 3 shows the revealed correlations between the indicators of social capital and attitudes towards innovation. Thus, a positive correlation of the general level of trust with Focus on the future and the Index of innovativeness was found. Strong positive correlations of the indicator of "Perceived social capital" with all the components of the construct "Attitude to innovation" (p

<0.001) were also revealed. Tolerance was positively associated with Creativity, Focus on the future and the Index of innovativeness.

Below are the results of the correlation analysis of values and social capital.

**Table 4.** The relationship between social capital and value - oppositions (N=1238)

	Openness to Change	Conservation	Self-Transcendence	Self-Enhancement
General level of trust	-.06*	.09***	.21***	-.15***
Perceived social capital			.12***	-.10***
Tolerance	-.06*		.13***	-.15***

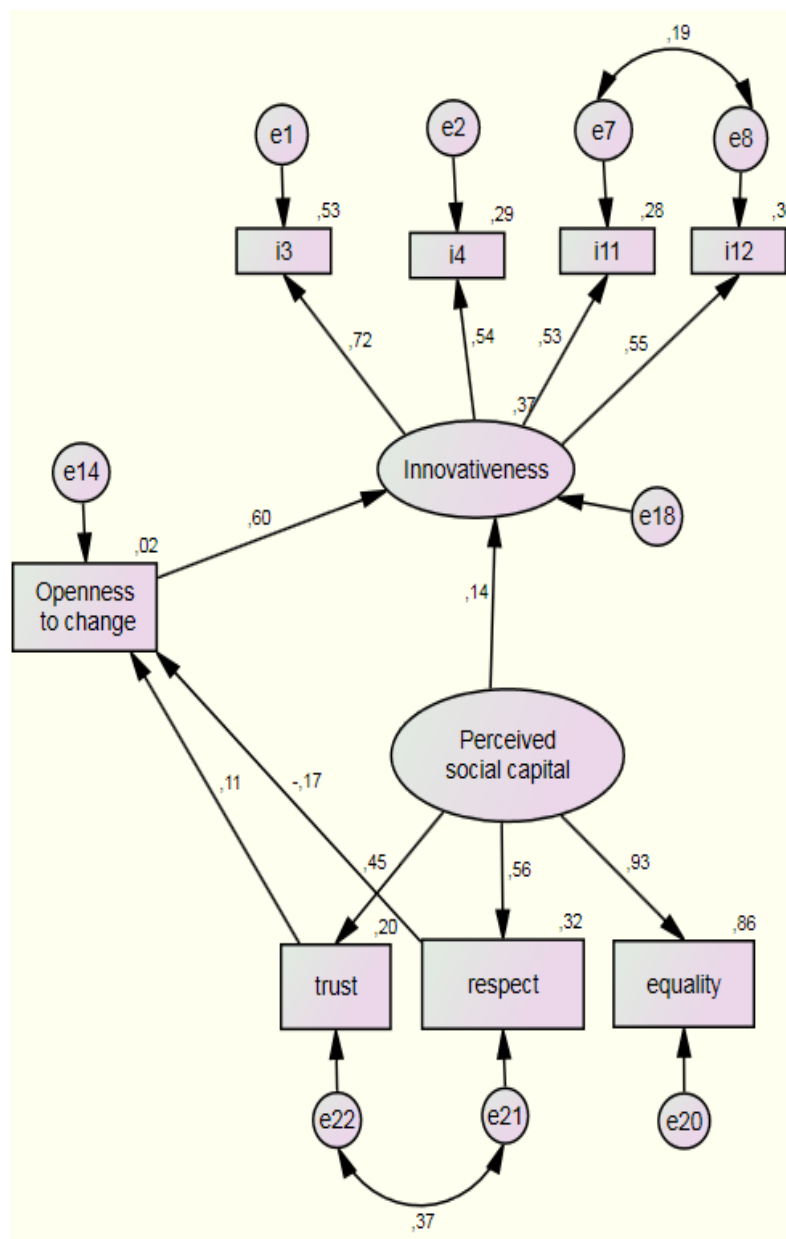
\* p<0.05; \*\* p<0.01; \*\*\* p<0.001

The data presented in Table 4 demonstrate that the general level of trust had a strong negative correlation with the values of Openness to Change and Self-Enhancement and a strong positive correlation with the values of Conservation and Self-Transcendence. The variable "Perceived social capital" had a strong positive correlation with the value of Self-Transcendence and a strong negative correlation with the value of Self-Enhancement (p <0.001). Tolerance had a weak negative correlation with the value of Openness to Change and a strong negative correlation with the value of Self-Enhancement. This parameter also had a strong positive correlation with the value of Self-Transcendence.

To verify the theoretical model of the relationship of values, social capital and attitudes towards innovation, we employed the method of structural modeling using SPSS Amos 7.0. Correlation analysis allowed us to identify the main variables that we included in the model. In the first phase, we conducted a confirmatory factor analysis to test the scales that measure attitudes towards innovation and social capital. The results showed that not all the items on the scales were effective, therefore the items that showed strong relationships were left out. Modification indices suggested adding correlations between the errors in the scales on the attitude to innovation (between items i11 and i12) and perceived social capital (between the items of "trust" and "respect for other people"). The earlier analysis of literature gave us the basis to test the model of not only full but also partial mediation, since relationships of the components of social capital were found both directly with an attitude towards innovation, and indirectly through the value of Openness to Change [Landry et al., 2002; Tura T., Harmaakorp V., 2005; Akcomak and ter Weel, 2007; Hauser, Ch. et al., 2007; McCallum S., O'Connell D.2009].

The resulting empirical model (see Figure 2) of partial mediation, built with the help of SEM, includes the following indicators: Attitude to innovation (a 4-item scale: "He/she is ready to take risks for the sake of progress", "He/she likes to do things their own original way", "He/she is ready to invest in innovation", "He feels quite comfortable in an unstable environment"); the values of Openness to Change; perceived social capital measured by 3 items ("How typical these behaviors are of the people around you: trusting each other; behaving respectfully towards each other; treating people around as equals").

**Figure 2** - The empirical model of the relationship of attitude to innovation, openness to change and perceived social capital (N=1248).



Note: Chi-square = 18,480, p=0,000, CFI = 0,998, RMSEA = 0,014



The results obtained using the structural equation modelling allowed us to assert that the perceived social capital and the value of Openness to Change positively influence the attitude towards innovation. Relationships between the parameters of perceived social capital and the value of Openness to Change were also found. Thus, the item "Trusting each other" positively affects the value of Openness to Change, and "Respect for each other" as a component of perceived social capital does not contribute to the Openness to Change.

## **5.DISCUSSION OF THE RESULTS**

The correlation analysis revealed that the value of Openness to Change correlated with all the dimensions of innovation; creativity, risk for the sake of success, focus on the future and the general index of innovativeness of an individual. Creativity involves the creation of new knowledge different from previous experience, which certainly carries in itself a desire and openness towards the new, i.e., change. The relationship of this indicator with the parameter Risk for the sake of success may be due to the fact that changes bring instability and potential risks. The focus of a person on the future tells us about his/her anticipation of new upcoming events, of the unknown, implying openness and a focus on new experiences and changes. The general index of innovativeness, summing up all these characteristics of innovations, implicitly contained the individual readiness for change and openness to them. The value of Conservation, in fact contradicting with Openness to Change, negatively correlated with all the components of the Attitude towards innovation. It is logical that creativity, risk for the sake of success and focus on future as important components of the innovation process, contradict values of Conservation, including values of security and tradition.

Values of Self-Transcendence, assuming universalism and benevolence towards others, negatively correlated with creativity and risk for the sake of success. The given relationships seem logical, since innovativeness as a construct gives rise to competition and the desire to stand out, which contradicts with the values of Self-Transcendence contributing to group harmony. The obtained positive relationships of values of Self-Enhancement, which include the value of Achievement, Power and Hedonism, with indicators of Attitude to innovation may be due to the following: the respondents, focusing mainly on achievements or, in other words, success, are ready to take risks for this. Individuals seeking to implement the values of Self-Enhancement focused on the future, since the realization of their basic needs was in that timeframe. The relationship between the values of Self-Enhancement serving the interests of an individual and the general Index of Innovativeness seems quite logical, since the values of Achievement and focus on success

constitute a part of the characteristics of an innovator. Thus, our first hypothesis about the positive relationship between values of Openness to Change and attitudes towards innovation was confirmed.

As noted by researchers, innovation is now viewed not as the sole combination of material forms of capital (physical, financial), but also as a combination of intangible forms of capital, especially social capital [Landry, Réjean; Amara, Nabil; Lamari, Moktar, 2002]. Therefore, it is interesting to examine the way the dimensions of social capital in our study associate with the attitude to innovation. We see that all the dimensions of social capital relate to attitudes toward innovation. The general level of trust (trust to strangers) positively correlated with a Focus on the future and the Index of Innovativeness. We assume that both parameters reflect the trust of the respondents towards the world. This is the reason for the relationship between these parameters. In addition, people with positive attitudes to innovation have a high level of trust to the unknown, since innovations involve changes and introduction of the new.

The positive relationship between the indicator "perceived social capital" and attitudes to innovation reflects the fact that trust, respect and equal relations form the most optimal social milieu for the development of innovation. Perceived social capital is an attitude to society as a whole. An individual's attitude to society is mediated between relations in this society, and the perception of those relations. Foreign empirical studies show that trust in other people is mediated by the perception of trust by others or, in terms of authors, ascribed trust (Hauberer, 2011). Russian authors note that the perception of the level of social capital is important for self-orientation on success and economic activity (Tatarko, 2012), which was also revealed in this study in the positive correlation with the innovativeness of individual.

The indicator of "Tolerance" also positively correlated with the components of attitude to innovation. The relationship between the indicator of "Tolerance" and the Index of innovativeness, from our point of view, indicates that the respondents with positive attitudes to the introduction of innovations demonstrate tolerance towards any novelty, including people and groups that are different. The obtained data are consistent with studies of social capital and its impact on innovation [Landry, Réjean; Amara, Nabil; Lamari, Moktar, 2002, Tura T. and Harmaakorpi, 2005, Lebedeva, 2011]. Thus, our second hypothesis on the positive impact of the characteristics of social capital (trust, tolerance and perceived social capital) on the attitude towards innovation was confirmed.

Regarding the relationship between values and social capital, the correlation analysis revealed a

positive relationship of values of Conservation and Self-Transcendence, and a negative relationship of values of Openness to Change and Self-Enhancement with the dimensions of social capital. This can be explained by the fact that the values of Conservation and Self-Transcendence represent the interests of a group and contribute to group harmony, while the values of Openness to Change and Self-Enhancement serve the interests of an individual and negatively correlate with indicators of social capital. Since trust, tolerance, social ties and other dimensions of social capital also contribute to social harmony and cohesion, their close relationship with the values of Conservation and Self-Transcendence is not surprising, as it had been assumed in our third hypothesis.

The obtained empirical model of the relationship of values and perceived social capital with the attitude towards innovation partly confirmed the results of the correlation analysis. The strong relationship of the value of Openness to Change with the attitude towards innovation is indicative of the need for creating conditions to form the given value as a powerful value-motivational basis of individual creativity and innovativeness. In this model, perceived social capital performs to some degree the function of a mediator. Trust relationships in the group, both directly and indirectly through the values of Openness to Change, promote the adoption and support for innovation. Interestingly, the correlation analysis showed no relation between perceived social capital and Openness to Change. Moreover, it showed a weak negative relationship between trust and Openness to Change.

In the empirical model, we find a positive relationship of the component "trust" of perceived social capital and the negative relationship of the other component "Respect for others" with the value of Openness to Change. This may indicate that, in the minds of our respondents, confidence is a necessary element of the innovative environment and openness to change, whereas respect, which is an important component of perceived social capital, contradicts with openness to change, since it assumes a status quo. Openness to Change and innovation often lead to overthrowing of authorities, confrontations and conflicts, which is not always compatible with respect for others. If we follow the logic of Fromhold-Eisebith, who argues that the general purpose of social capital is "to sustain elements of stability and reliability in an environment of change" [Fromhold-Eisebith M., 2002], while an innovative or creative milieu is more focused on change, our model proves this mechanism once again.

Thus, our hypotheses were confirmed in the empirical study, proving once again that the socio-cultural context and the dominant values in society play a significant role in attitudes to innovation, and it is essential to take them into account while designing and implementing innovation policies at any level.

## 6. CONCLUSION:

- 7) Values of Openness to Change positively correlate with attitudes to innovation
- 8) Trust, Tolerance and Perceived social capital positively associate with attitudes towards innovation
- 9) Values of Conservation and Self-Transcendence, expressing the interests of a group, positively correlate with the dimensions of social capital
- 10) Social Capital, both directly and through values of Openness to Change, positively influences attitudes towards innovation
- 11) The identified relationships of values and social capital with attitudes towards innovations require the consideration of contextual characteristics in planning and implementing innovations.

This study confirms the ideas of our predecessors [Amabile, 1990; Rudowicz & Yue, 2000], stating that in order to obtain a better understanding of the psychological nature of innovation, it must be studied, just as creativity, in the context of the interplay of individual and socio-cultural variables.

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# Implicit theories of innovativeness: cross-cultural analysis

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## **Abstract**

This study revealed and examined cultural differences in values, implicit theories of innovativeness and attitudes to innovation across three ethnocultural groups: Russians, representatives of the peoples of North Caucasus (Ingush and Chechens), and Tuvins (N = 804). Individual theories of innovativeness appeared to be more pronounced in Russians; whereas social theories of innovativeness are more discernible in the respondents from North Caucasus and Tuva. Using structural equation modeling was identified a culturally universal model of values' effects – direct and mediated by implicit theories of innovativeness – on attitudes to innovation. The study demonstrates how the direct negative impact of Conservation values on positive attitudes to innovation is transformed into positive impact, promoting the acceptance of innovations, through the mediating role of implicit theories of innovativeness. The current research study sheds light on the important mediating role of implicit theories of innovativeness in the impact of individual values on attitudes to innovation in different cultures.

## **Keywords**

culture, values, attitudes, creativity, innovations, implicit theories, innovativeness

## **JEL Classification**

A13



## **1. Introduction**

The economic growth and prosperity of any country in modern times depends not so much on favorable geographical location and availability of natural resources, but on the concentration and degree of development of intellectual potential (Innovative Development..., 2008). Currently, Russia continues to maintain low level of innovative activity (Innovative Development of ..., 2008), despite the fact that the intellectual and creative potential of Russian youth is quite high (Lebedev, 2008, 2009; Kharkurin & Motalleebi, 2008).

Modern scientific literature devoted to the study of creativity and innovativeness increasingly raises the question of similarities and differences between these concepts. Creativity is both a cognitive and a social process, boosted by conscious or unconscious ability of generating ideas, concepts and associations [Lazzarato, 1996]. Innovativeness is the successful exploitation of new ideas; it is the result of a creative process in terms of "profitability" which involves the generation and implementation of new products, services, procedures and processes that are desirable and viable [Serrat, 2009]. Often, creativity is viewed an essential building block for innovativeness – innovativeness implies creativity, but creativity itself is not sufficient for a sustainable capacity for innovativeness [Styhre & Börjesson, 2006 West, 2004]. Creativity precedes innovations; it is not born merely in a person's mind of but in interaction with social context. There is a considerable amount of evidence indicating that culture can stimulate or frustrate creativity. Arieti [1976], examining the impact of culture on creativity, suggested that potential creativity is more widespread than factual creativity. Some cultures promote creativity much more than others, and he called these "creativogenic cultures".

For many years, psychologists in the West and just ordinary people attributed creativity to personal rather than social or cultural factors. Therefore, studies of creativity have focused on the study of personality traits [Barron & Harrington, 1981; Helsen, 1996], cognitive processes [Sternberg, 1988] and the life path of creative people [Gardner, 1993]. In Western psychology, creativity is defined most commonly as a quality attributed to a person or a process that can generate novel, appropriate, non-algorithmic solution to a problem [Mayer, 1999].

For over 30 years, such an individualistic western approach to the study of creativity hampered researchers' understanding of the social nature of creative processes. Numerous studies in Chinese and Korean cultures (Chan & Chan, 1999; Rudowicz & Yue, 2000, etc.) and cultures of Islamic countries and Turkey (Khaleefa et al., 1997) have demonstrated that there is no universal

understanding of creativity. For a better understanding of creativity, it should be studied in the context of interaction of individual and socio-cultural variables of creativity.

Research on innovation pays much attention to analyzing its procedural and resulting components; however, studying the characteristics of subjects of innovative activity, which are related to their ability to implement and evaluate these ideas, is not less important. These characteristics are denoted by the term "innovativeness". Innovativeness by itself can be defined as ability to adapt new ideas and implement them in practice, to develop new products [Styhre & Börjesson, 2006; Rogers, 2003; West, 1997]. Some authors view innovativeness as the ability of a subject to draw ideas from outside and introduce them into the current system, as well as the ability to effectively present these ideas to the public [Grewal, Mehta, and Kardes, 2000; Larsen and Wetherbe, 1999]. Thus, innovation is the successful application of emerging creative ideas, while innovativeness reflects the ability to evaluate and implement these ideas.

Theories and concepts of creativity can be described as explicit (external, explicit) and implicit (internal, implicit). Explicit theories of creativity are the constructions of psychologists or social scientists drawing on theoretical hypotheses that can be tested empirically (Sternberg, 1985). Implicit theories derive from individual belief systems rooted in the minds of members of a particular culture; implicit theories must be discovered rather than invented. People use their implicit theories as psychological bases for making evaluations of their own and others' behavior; implicit theories can serve as bases for education and skills training.

In cross-cultural studies of implicit theories of creativity in the West (the USA, Europe) and East (China, Japan, Korea), there as revealed a clear mismatch – in the West the essential attributes of creativity and innovation are creativity, novelty, originality, focus on self-expression, whereas in the East, any innovation is regarded as an interpretation of existing tradition. Empirical studies of implicit concepts of creativity among teachers in the U.S. and China revealed both similarities and differences which consisted primarily in the fact that such qualities as “aesthetic taste” and “humor” are consistently absent in the Chinese perception of a creative person, whereas such characteristics as “honesty”, “respect for elders”, “responsibility” and focus on collectivism are perceived as indicative of creativity (Rudowicz & Yue, 2000). The results of a cross-cultural study of implicit concepts of creativity among teachers and parents in India and the U.S. with the use of ACL (Adjective Check List) Runco et al., 1993) revealed that personality traits (individualism, independence, etc.) associated with creativity are rated as undesirable by teachers and parents, i.e., in implicit culture-specific concepts of creativity dominate culturally approved personality traits (Runco & Johnson, 2002).

In Russia, studies examining teachers' evaluation of the concept of “good student” showed that teachers rated as the most desirable such qualities as “discipline” and “perseverance”; qualities

such as “intellectual curiosity” and “independence” were regarded as desirable; whereas “initiative”, “shrewdness”, “audacity” were viewed as undesirable (Efimenko, Hwang, 2006). Clearly, creativity and innovativeness associate stronger with independence and initiative than with discipline and perseverance; so the question is: Do Russian socialization practices contribute to nurturing in children qualities necessary for innovation? Since comparative studies of implicit theories of creativity and innovativeness in the multicultural Russian society have not been conducted, we consider them relevant and timely.

Attitudes to innovation are largely conditioned by cultural values. In 2008 -2009, Lebedeva carried out an empirical study on student samples in Russia, Canada and China, which revealed cross-cultural and gender differences in value priorities of students of the three countries (Lebedev, 2008, 2009). The results of correlation and multiple regression analyzes of the relationship between values and innovative attitudes allowed to confirm the hypothesis that values of Openness to Change promote positive attitudes to innovations, whereas Conservation values serve as impediments. These results are consistent with those of overseas studies (Dollinger et al., 2007) and are indicative of the near-universal nature of this relationship.

Review of theoretical and empirical studies on implicit theories of creativity [Seng, Keung & Cheng, 2008; Runco, Johnson, 2002] as well as investigations of the impact of culture on creativity and innovation [Chan & Chan, 1999; Rudowicz & Yue, 2000; Lim and Plucker, 2001 Amabile, 1996, Runco, 2004, West and Farr, 1990, Leung & Morris, 2011] allowed us to propose **the general hypothesis** of our study: values, implicit theories of innovativeness and their impact on attitudes to innovation vary across cultures. **Specific hypothesis:**

- 1) The content of implicit theories of innovativeness varies between Russians, the peoples of North Caucasus and Tuvins – “individual” theories of innovativeness are more important for Russians, while “social” theories of innovativeness are more important for the peoples of North Caucasus and Tuvins.
- 2) Individual values vary across the three different cultures – Openness to Change values are more significant for Russians, whereas Conservation values are of greater importance for Tuvins and the representatives of the North Caucasus.
- 3) Values of individuals affect their attitude to innovation both directly and through implicit theories of innovativeness, and this effect varies across different cultures.

**Study objectives:**

8.to identify and compare individual values and implicit theories of innovativeness in the three ethnocultural groups;

9.to identify values’ direct and indirect effects – mediated by implicit theories of innovativeness – on attitudes to innovation in a cross-cultural comparison.

**Object of the study:** implicit theories of innovativeness

**Subject of the study:** effect of values on attitudes to innovation, mediated by implicit theories of innovativeness.

## 2. METHODOLOGY

The study *participants* were university students and secondary school teachers from three ethnocultural groups: Russians (Moscow, Novokuznetsk), peoples of the North Caucasus (Ingush, Chechens - Southern Federal District), Tuvins (Tuva Republic). The total sample size was 804 people (see Table 1).

**Table 1 .** The characteristics of the study sample

Group	Number of respondents	Sex		Age (median)
		male, number, %	female, number, %	
Russians	390	98 (22.3%)	292(77.7%)	M=30,2 Me -21 (min -17, max-63)
Peoples of the North Caucasus (Ingush, Chechens)	194	34 (18%)	160 (82%)	M=31 Me -28 (min -17, max-62)
Tuvins	217	31(14%)	186(86%)	M=29,3 Me -24 (min -17, max-69)
Total	801	163(19%)	638 (81%)	M=30,1 Me -23 (min -17, max-69)

Students and teachers were intentionally chosen as respondents since secondary school teachers are the ones who translate cultural values and concepts to future generations; they are actively involved in socio-cultural socialization of children and young people, their ideas about creativity

and innovation affect the development of creative abilities and the formation of attitudes towards innovation in their students. University students are the “product” of the Russian school; their implicit concepts of creativity and innovation influence their attitudes and behavior in relation to innovation, consequently, the formation of socio-psychological climate in which an innovative economy is to be developed.

*Procedure.* A questionnaire in Russian was administered to respondents to be completed individually or in small groups (5-7 people) in person and in the presence of interviewer. The survey was conducted in educational institutions (universities and secondary schools); the procedure was the same. The average time for filling in the questionnaire was 15-20 minutes.

*Measures of the study.* A socio-psychological survey with the following instruments:

h) A modified ACL (Adjective Check List) (Runco et al., 1993) for measuring traits necessary for an innovator. The measure contained 30 adjectives that a person checks as potential qualities of an innovator. The respondents were asked to rate from 1 (min) to 7 (max) the desirability of each of these personality traits for an innovator, an inventor, and a creative person (trying to choose different numbers).

i) A measure developed by the author – *Innovative Personality Traits* [4] – which consisted of 12 statements. The respondents were asked to assess how much they resembled the person whose personality traits were described using a five-point scale ranging from 1 - ‘absolutely not like me’ to 5 - ‘absolutely like me’. The measure in its original version contains 3 main scales identified through exploratory factor analysis with Varimax rotated principal components analysis. Scales of the measurements: a) “Creativity” (4 items, for example: ‘He (she) likes to do things their own peculiar way’; Cronbach  $\alpha = 0.80$ ); b) “Risk for the Sake of Success” (4 items, for example: ‘He (she) is ready to take risks for the sake of achievements’; Cronbach  $\alpha = 0.72$ ); c) “Focus on Future” (4 items, for example: ‘In his (her) opinion, today's losses are not necessarily bad for the future’; Cronbach  $\alpha = 0.74$ ). The average value of the above four scales was the integral “Person’s innovativeness index” (Cronbach  $\alpha = 0.79$  - Russians, 0.85 - Caucasians, 0.80 - Tuvins). The testing and adaptation of the measure was carried out in a series of cross-cultural studies (N = 4573) in Russia (2007-2011), Canada (2008), and China (2009).

j) Schwartz value survey (SVS57) translated into Russian and adapted in Russia (Lebedeva, 2001). For the analysis we used the key for the 10 individual value blocks, which were then summed into value-oppositions: Openness to Change - Conservation and Self-Enhancement - Self-Transcendence.

Main variables:

Independent variables:

Innovator characteristics (based on ACL): *energetic, active, curious, ambitious, adventurous, self-confident, highly motivated, enthusiastic, optimistic, inspirational, open-minded, intelligent, logical, intuition, imaginative, risk inclination, resourceful, clear thinking, leadership, respect for authority, independent, conformity, individualistic, perseverance, daring, honest, trust toward people, humorous, obedient, artistic, aesthetic taste (measured on a seven-point scale from 1 (min) to 7 (max)).*

Individual implicit theories of innovativeness were identified using exploratory and confirmatory factor analysis (Lebedev, 2012) taking the arithmetic mean of the following innovator qualities: *open-mindedness, creativity, enthusiasm, risk inclination, imagination, high motivation, optimism.*

Social implicit theories of innovativeness were identified using exploratory and confirmatory factor analysis (Lebedev, 2012) taking the arithmetic mean of the following innovator qualities: *respect for authority, honesty, trust toward people.*

Individual value-oppositions were calculated in accordance with the key: Openness to Change, Conservation, Self-Enhancement, Self-Transcendence.

The dependent variables:

The Index of innovativeness (attitudes to innovation) was determined based on the measure “Innovative qualities of a person” developed by Lebedeva and Tatarko using confirmatory factor analysis and was considered as the arithmetic mean of the following statements:

He/she is ready to take risks for the sake of achievement.

He/she likes to do things their own peculiar way.

Diversity in life is important to him/her

Meeting the unknown and new does not scare him/her.

He/she is a creative person, always striving to create and invent something new.

Love for the study of the new and curiosity are characteristic of him/her.

The data was processed using SPSS (version 19). To determine the significance of differences we applied the Kolmogorov-Smirnov test for independent samples and calculated the effect-size (Cohen’s d). To determine the relationship between the variables we used structural modeling of latent variables through SPPS AMOS (version 19).

### **3.RESULTS OF THE STUDY**

#### **3.1. Cross-cultural similarities and differences between implicit theories of innovativeness, values and attitudes to innovation**

Among the qualities necessary for an innovator, we revealed both similarities and significant differences between Russians, peoples of the North Caucasus and Tuvins. In particular, cross-cultural similarities in innovator's priority qualities manifest in the fact that in all three groups

there are present such qualities as *intelligence, logic, creativity, self-confidence and activeness*. The application of Kolmogorov-Smirnov test for independent samples revealed significant differences in the qualities of innovators between Russians and the people of the North Caucasus: Russians viewed as more important such qualities as *curiosity* ( $Z = 2,41$  \*\*\*), *high motivation* ( $Z = 1,36$  \*), *clear thinking* ( $Z = 1,69$  \*\*); whereas Caucasians valued *conformity* ( $Z = 1,59$  \*), *honesty* ( $Z = 2,77$  \*\*\*), *trust toward people* ( $Z = 2,05$  \* \*\*), and *obedience* ( $Z = 3,00$  \*\*\*). It is easy to note that the main differences relate to individual (more important for Russians) and social (more important for the peoples of the Caucasus) personality traits of an innovator.

Comparison of innovator's qualities in Russians and Tuvins revealed the following significant differences: Russians regard as more important such qualities as *ambition* ( $Z = 1,70$  \*), *enthusiasm* ( $Z = 1,58$  \*), *intuition* ( $Z = 1,69$  \*), *imagination* ( $Z = 1,36$  \*), *risk inclination* ( $Z = 1,69$  \*), *creativity* ( $Z = 1,44$  \*), *perseverance* ( $Z = 1,82$  \*\*), and *individualism* ( $Z = 1,59$  \*); whereas Tuvins value *respect for authority* ( $Z = 1,58$  \*), *conformity* ( $Z = 1,51$  \*), *honesty* ( $Z = 2,60$  \*\*\*), *trust toward people* ( $Z = 1,96$  \*\*\*), and *obedience* ( $Z = 3,68$  \*\*\*). Again, as is the case with peoples of the Caucasus, Russians give higher value to individual qualities of innovators, while Tuvins cherish social qualities.

The intergroup comparison of innovator's quality preferences in the North Caucasian respondents and Tuvins showed that the representatives of the peoples of the North Caucasus more than Tuvins value innovators' *risk inclination* ( $Z = 1,43$  \*), *clear thinking* ( $Z = 1,59$  \*), *independence* ( $Z = 1,86$  \*\*), *individualism* ( $Z = 1,94$  \*\*\*), i.e., individual qualities of an innovator.

Through exploratory and confirmatory analysis there were identified two blocks of implicit concepts of innovativeness – “individual”: *open-mindedness, creativity, enthusiasm, risk inclination, imagination, high motivation, optimism* and “social”: *respect for authority, honesty, trust toward people* (for more details see Lebedeva, 2012). Next, we conducted a cross-cultural comparison of the identified implicit theories of innovativeness using Kolmogorov-Smirnov test (see Tables 2-4)

**Table 2.** Cross-cultural differences in implicit theories of innovativeness (Russians - Representatives of the Peoples of the North Caucasus)

Group	Russians			Peoples of the North Caucasus			Z-factor
	Me	range	Min-max	Me	range	Min-max	
Individual ITI	5,50	5,17	1,83-7	5,33	4	3-7	1,119
Social ITI	3,75	6,25	,75-7	4,5	5,75	1,25-7	1,957**

\*\*\* -  $p < 0,001$ , \*\* -  $p < 0,01$ , \* -  $p < 0,05$

*ITI* – Implicit theories of innovativeness

The Kolmogorov-Smirnov Z revealed significant differences in social theories of innovativeness between Russians and representatives of peoples of North Caucasus, namely, Caucasian respondents believe social qualities – respect for authority, honesty, trust to people – are more necessary for an innovator than it is viewed by Russian respondents.

**Table 3.** Cross-cultural differences in implicit theories of innovativeness (Russians - Tuvins)

Group	Russians			Tuvins			Z-factor
	Me	range	Min-max	Me	range	Min-max	
Individual ITI	5,50	5,17	1,83-7	5,17	5	2,00-7,00	2,196***
Social ITI	3,75	6,25	,75-7	4,75	6	1,00-7,00	2,975***

\*\*\* -  $p < 0,001$ , \*\* -  $p < 0,01$ , \* -  $p < 0,05$

*ITI* – Implicit theories of innovativeness

According to Table 3, significant differences were observed in individual (more important for Russians) and social theories of innovativeness (more important for Tuvins).

**Table 4.** Cross-cultural differences in implicit theories of innovativeness (Representatives of the Peoples of the North Caucasus - Tuvins)

Group	Caucasians			Tuvans			Z-factor
	Me	range	Min-max	Me	range	Min-max	
Individual ITI	5,33	4	3-7	5,17	5	2,00-7,00	1,063
Social ITI	4,5	5,75	1,25-7	4,75	6	1,00-7,00	,814

\*\*\* -  $p < 0,001$ , \*\* -  $p < 0,01$ , \* -  $p < 0,05$

*ITI* – Implicit theories of innovativeness

The data in Table 4 demonstrate that Caucasians give higher priority to the individual qualities of an innovator, whereas Tuvins rate highly the social qualities of an innovator.

Next, we compared values and attitudes to innovation in the three groups of respondents (Table 5-7).

**Table 5.** Intergroup differences in values (Russians - Caucasian peoples)



Groups	Russians		Peoples of North Caucasus		Cohen's D
	M	SD	M	SD	
Conservation	3,94***	,57	4,42***	,46	-.85
Openness to Change	3,78***	,83	3,35***	,85	.48
Self-Transcendence	4,14*	,48	4,24*	,46	
Self-Achievement	3,49***	,71	3,26***	,71	

p<0.05; \*\* p<0.01; \*\*\* p<0.001;

We see significant differences in values between Russians and representatives of the peoples of Caucasus: Conservation values (Security, Conformity, Tradition) are more important for Caucasians, and these differences are not random as evidenced by the size of the effect size. Close to this threshold is the difference in values of Openness to change which are more significant for Russians.

**Table 6.** Intergroup differences in values (Russians - Tuvins)

Groups	Russians		Tuvins		Cohen's d
	M	SD	M	SD	
Conservation	3,94***	,57	4,13***	,39	-.39
Openness to Change	3,78***	,83	3,55***	,63	.36
Self-Transcendence	4,14	,48	4,19	,53	
Self-Achievement	3,49**	,71	3,65**	,61	

p<0.05; \*\* p<0.01; \*\*\* p<0.001;

Tuvins, in comparison with Russians, rate higher values of Conservation and Self-Achievement; whereas Russians prefer values of Openness to Change which are more pronounced in Russians.

**Table 7.** Intergroup differences in values (the peoples of the Caucasus - Tuvins)

Groups	Peoples of North Caucasus		Tuvins		Cohen's d
	M	SD	M	SD	
Conservation	4,42***	,46	4,13***	,39	.66
Openness to Change	3,35**	,85	3,55**	,63	
Self-Transcendence	4,24	,46	4,19	,53	
Self-Achievement	3,26***	,71	3,65**	,61	

p<0.05; \*\* p<0.01; \*\*\* p<0.001;

Comparing the values of representatives of the North Caucasus and Tuvins revealed significant and non-random differences in the values of Conservation (more important for the peoples of Caucasus).

Next, we conducted a cross-cultural comparison of the Index of Innovativeness in the three cultural groups using the Kolmogorov-Smirnov test, which showed no significant cross-cultural differences in the Index of Innovativeness.

## **5. 2.An empirical model of the effect of values on attitudes to innovation through implicit theories of innovativeness**

In the second phase of our study, through the use of structural equation modeling, we verified the hypothesis about the mediating role of implicit theories of innovativeness in the effect of values on attitudes to innovation. The analysis included three groups of variables:

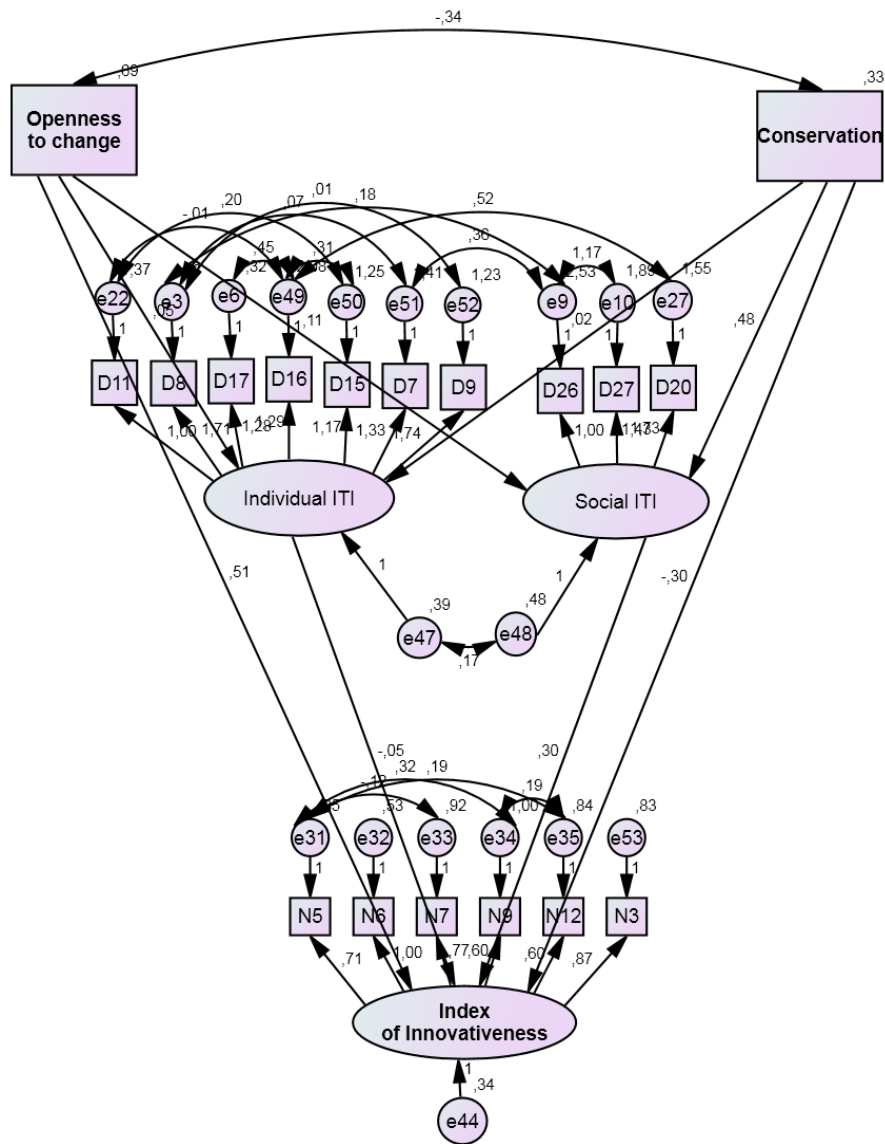
12) Value - oppositions “Openness to Change” and “Conservation” since according to our previous study (Lebedeva, 2008, 2009, 2012) these value-oppositions affect attitude to innovation.

13) Implicit theories of innovativeness (Individual and Social).

14) The scale of Index of innovativeness, tested earlier with confirmatory factor analysis [Lebedeva, 2012].

Two competing models of full and partial mediation were tested. The results of the analysis have shown that the model of partial mediation has better fit (CFI = .954 against CFI = .906 for the model of full mediation). The model of partial mediation is shown in the Fig. 1.

**Figure 1.** Model of the effect of values and implicit theories of innovativeness on attitudes to innovation (“Index of Innovativeness”) (CMIN/DF = 1.46, CFI = .95, RMSEA = .03, PCLOSE = 1.00)



The results of intergroup analysis confirmed the metric invariance of the model across the three cultural groups (Russian, Caucasians, and Tuvins) ( $P = .090$ , CFI = .951), which allows us to compare the regression coefficients for these three groups of respondents. Table 5 shows the standardized regression coefficients for significant relationships.

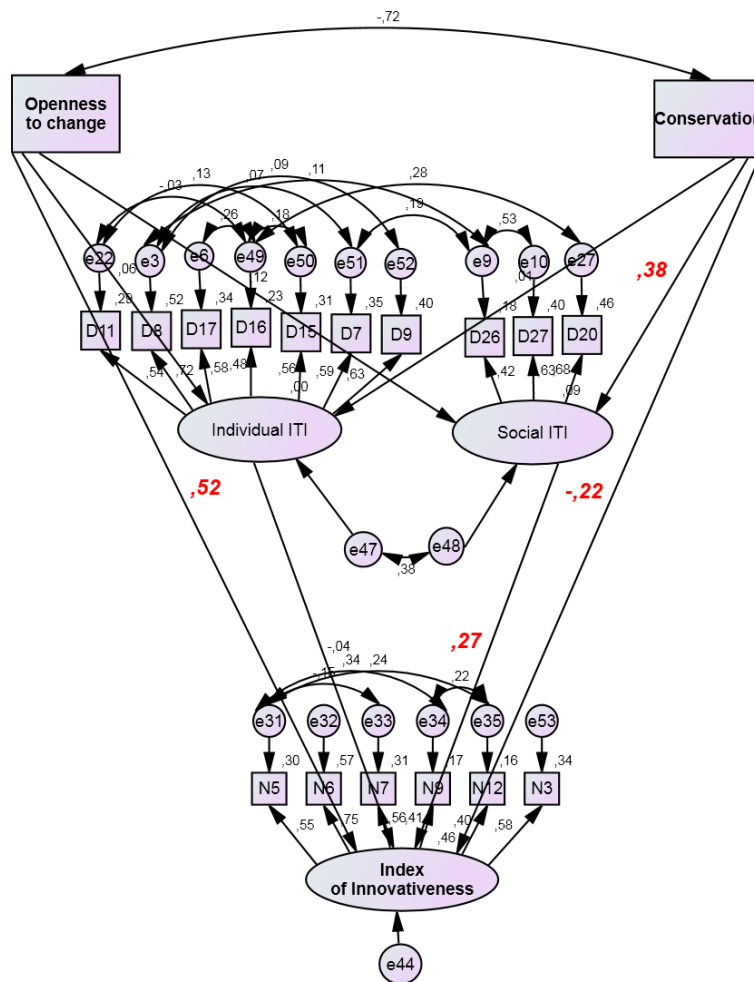
**Table 5** - Standardized regression coefficients for the three ethnic groups

	Russians	Caucasians	Tuvins
Conservation values □ Social ITI	.38***	.23	.16**
Conservation values □ Individual ITI	.01	-.13	-.23***
Conservation values □ Index of Innovativeness	-.22**	-.19	-.19
Openness to Change values □ Index of Innovativeness	.52***	.19	.31***

Individual ITI □ Index of Innovativeness	-0.04	.22	.28**
Social ITI □ Index of Innovativeness	.27***	.03	-.08

We see significant correlations between values, implicit theories of innovativeness and attitudes to innovation in groups of Russians and Tuvins and their absence in the group of representatives of the peoples of the North Caucasus. Below, in Figures 2-4 the effects of values and ITI on Index of Innovativeness for each of three ethnic groups are given. All significant effects are shown in red.

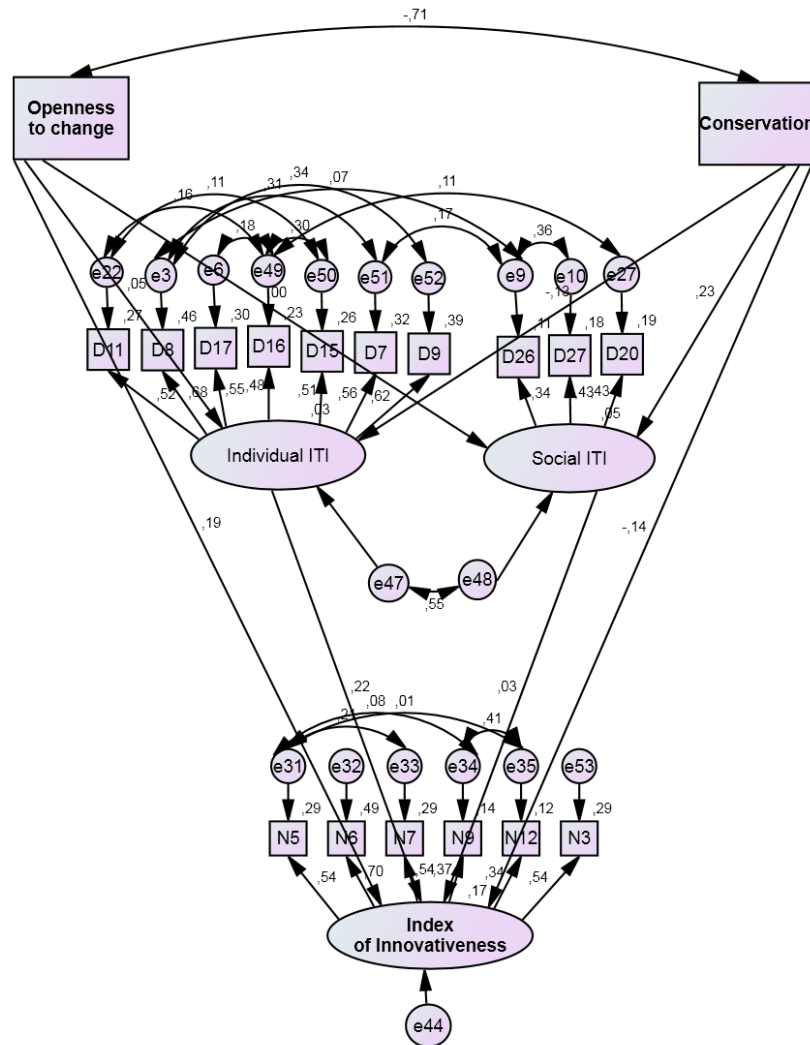
**Figure 2.** Model of individual values' effects (direct and mediated by implicit theories of innovativeness) on attitudes to innovation (the Russian sample).



We see that the values of Openness to Change in Russians directly affect the Index of innovativeness, and the effect is significant and positive. Conservation values directly and negatively impact the Index of innovativeness. In doing so they have a positive influence on social ITI, which in their turn also have a positive impact on the Index of innovativeness. This model

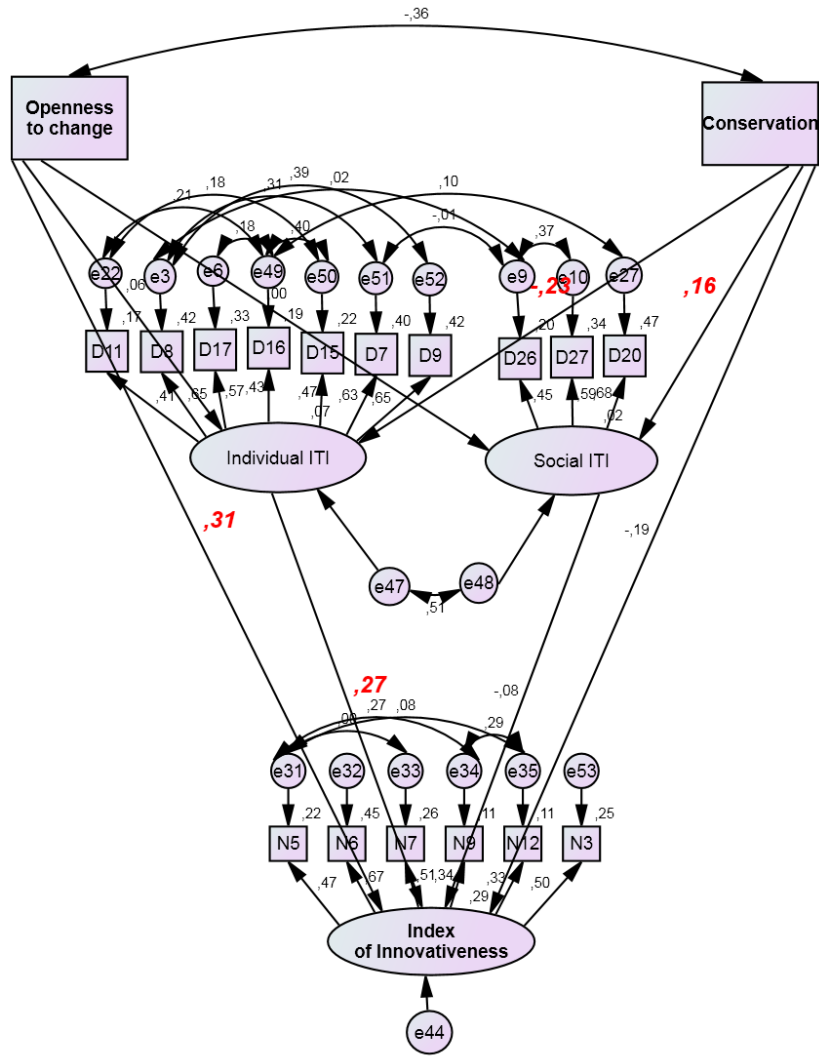
revealed the mediating role of social values in the impact of ITI on attitudes toward innovation. It is important to note that the direct and mediated by implicit theories of innovation impact of values on attitudes to innovation has a multidirectional nature: a negative direct effect and a positive effect mediated by social ITI.

**Figure 3.** Model of individual values' effects (direct and mediated by implicit theories of innovativeness) on attitudes to innovation (the Caucasian sample).



According to calculations, there were not revealed any significant relationships between individual values, implicit theories of innovation and attitudes to innovation in the sample of respondents from the North Caucasus; this is also supported by the data in Table 5.

**Figure 4.** Model of individual values' effects (direct and mediated by implicit theories of innovativeness) on attitudes to innovation (the Tuvin sample).



In Tuvins, the Openness to Change values positively and directly affect the attitude to innovations; Conservation values have a negative impact on Individual ITI, which in turn positively affect the Index of innovativeness. Conservation values also positively affect the social ITI which have no effect on attitudes to innovation.

**4.DISCUSSION OF RESULTS**

Thus, our study revealed cross-cultural similarities and differences in the qualities necessary for an innovator as viewed by Russians, respondents from the North Caucasus and Tuvins. The two blocks of implicit theories of innovativeness identified earlier with exploratory and confirmatory analyses – “individual” (*open-mindedness, creativity, enthusiasm, risk inclination, imagination, high motivation, optimism*) and “social” (*respect for authority, honesty, trust toward people* (for more details see Lebedeva, 2012) – differ in their significance in different cultures: for Russians Individual implicit theories of innovativeness are more significant, whereas the peoples of the Caucasus and Tuvins consider significant the social implicit theories of innovativeness. This is

consistent with the research results of our colleagues in China who discovered that the concept of creativity among Chinese teachers included such characteristics as “honesty”, “respect for elders”, “responsibility” and collectivist orientation (Rudowicz & Yue, 2000) as well as with the findings showing that in the implicit culture-specific theories of creativity in India and the U.S. dominate culturally-approved personality traits (Runco & Johnson, 2002).

The comparison of values revealed significant differences between Russians and representatives of the peoples of North Caucasus: Conservation values are more important for the representatives of the peoples of North Caucasus than for the Russians and Tuvins, and Openness to change values are more important for Russians than for Tuvins and the peoples of North Caucasus. These differences reflect the different positions of the studied cultures on the “traditional - modernized” continuum where the Russian culture is closer to the modernized pole, while the Tuvin culture and that of the peoples of the North Caucasus are closer to the pole of traditionalism. Comparing the values of the representatives of North Caucasus and Tuvins revealed significant differences in values of Conservation (more important for the peoples of North Caucasus). In addition, the comparison of the Index of innovativeness across the three cultural groups based on Kolmogorov-Smirnov showed no significant cross-cultural differences in the Index of innovativeness, i.e., the attitudes of respondents from all cultural groups are all positive (mean values from 3 to 4 points on the 5-point scale) (Lebedeva, 2012).

The analysis through structural equation modeling revealed a culturally universal model of influence of values on attitudes to innovation, both direct and through implicit theories of innovation, in three different cultures. In addition, the indicators of the partial mediation model, combining both the direct effect of values on attitudes to innovation, and the indirect effect of implicit theories of innovativeness, were better which allowed us to treat this as a model closer to the studied reality. There were revealed significant correlations between values, implicit theories of innovativeness and attitudes to innovation in the Russian and Tuvin groups, but not in the sample of representatives of the peoples of North Caucasus. This can be tentatively attributed to the fact that individual values in more traditional cultures may not have a significant effect on attitudes and behavior. This is confirmed by international studies that show that the degree to which values motivate behavior depends on social norms and group pressure: the more normative the behavior is, the more it is influenced by individual values (Bardi & Schwartz, 2003; Lebedeva, Schmidt, 2012).

The cross-cultural analysis of the models and relationship schemes in the three cultural groups separately showed that in Russians values of Openness to Change have a direct and positive impact on the Index of innovativeness while values of Conservation affect it directly and negatively. In this case, the values of Conservation exercise a positive impact on social implicit

theories of innovativeness, which transmit this positive impact onto attitudes towards innovation (Index of innovativeness) without changing. This model revealed the mediating role of social implicit theories of innovativeness in the impact of Conservation values on attitudes to innovation. It is important to note that the direct and mediated by social theories of innovativeness impact of Conservation values on attitudes to innovation is of a multidirectional nature: while the direct impact is negative, the impact mediated by social theories of innovativeness is positive. In Tuvins, values of Openness to Change, just like in Russians, positively and directly affect the attitude towards innovation. Conservation values have a negative impact on individual implicit theories of innovativeness which transform this effect into opposite (positive) effect on attitudes towards innovation (Index of innovativeness). Conservation values also positively affect the social ITI which do not have significant effect on attitudes to innovation.

The two samples reveal the positive mediating role of implicit theories of innovativeness - both individual and social - in the influence of Conservation values on attitudes to innovation. This is the principal novelty of this study which throws light on the salient role of implicit theories of innovativeness in the relationships between values and attitudes to innovation in different cultures, which consists in converting the direct negative impact of Conservation values on attitudes to innovation into positive impact mediated by implicit theories of innovativeness.

In conclusion, this study was the first to identify the implicit theories of innovativeness in different cultural groups of the Russian society. It revealed a culturally universal model of influence of values through implicit theories of innovativeness on attitudes to innovation. This indicates that innovative human behavior is conditioned not only by one's attitudes toward innovation, but also by the culture in which one was socialized and learned values and implicit theories of innovativeness. The study demonstrates how Conservation values, commonly regarded as hindrance to innovation, can be transformed through implicit theories of innovativeness and, thus, support innovation. The notion that an innovator must possess socially-oriented qualities (trust toward people, honesty, obedience, respect for authority) can contribute to acceptance of innovations, and this is important to consider when planning and implementing innovations in different regions of Russia.

## **5.FINDINGS**

13. There were revealed cross-cultural differences in implicit theories of innovativeness: individual theories of innovativeness are more pronounced in Russians, whereas the respondents from North Caucasus and Tuva have more pronounced social theories of innovativeness.



14. There were found significant cross-cultural differences in values between Russians and the representatives of the peoples of North Caucasus: Openness to Change values are more important for Russians, while Conservation values are more essential for the representatives of Caucasus and the Tuvins.

15. The study constructed a culturally universal model of direct and mediated by implicit theories of innovativeness effects of values on attitudes towards innovation.

16. The direct effect of Openness to Change values on attitudes to innovation is positive, while that of Conservation values is negative.

17. The study revealed the important mediating role of implicit theories of innovativeness - both individual and social - in the effect of Conservation values on attitudes to innovation, transforming the negative effect of Conservation values into a positive one.

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## **Report on Task 5.3: Background: Comparative View of the Quality of National Institutional Environments**

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### **1. Introduction**

The quality of national institutional settings play a major role in the economic success of countries since institutions, in a general sense, shape the modalities according to which economic actors organise their economic life, produce, consume and invest. More precisely, “institutions are the rules of the game in a society or [...] the humanly devised constraints that shape human interaction” (North, 1990: 3). As such, understanding the link between institutions and the economy in the European Union as well as in European Neighbouring Countries (NCs) is of utmost importance for economic development and success.

The European Union has recently experienced two Eastern enlargements that have enriched the whole area with a variety of institutional backgrounds. Although New Member States (NMS) succeeded in being in line with the so called *acquis communautaire*, which fundamentally represents a set of political and legal principles that all EU member countries should embrace, they are still characterised by some institutional features that influence their economic development potential, especially in more deprived regions. The existence of an institutional differential appears even more pronounced considering NCs, that is those countries that are part of the European Neighbouring Policy (ENP), described in the conceptual part of the SEARCH project by Monastiriotis and Borrell (2012) and Wesselinck and Boschma (2012). Institutional reform is fundamental in most of these countries for national economies to work and development process to be encouraged and sustained.

The objective of Task 5.3 is exactly that of analysing and comparing the institutional features of EU countries and NCs in order to create both a static map of different institutional contexts, which affect differently national economic performance, and also a dynamic map of institutional change and evolution that may guide institutional reform in NCs towards European values and norms.

In this Task each researcher has addressed a particular aspect of institutional quality exploring the topic from different perspectives. Thus, they individually provide interesting comparative studies of institutional quality and collectively offer a manifold view of institutional context that characterises EU countries and their bordering neighbours. Much variety in the treatment of the topic is also connected to the width of

the notion of institutions. In this respect, the various contributions employ different concepts of institutions that reflect separate aspects of institutional quality, ranging from governance to the rule of law, from the level of corruption to regulatory quality etc. Therefore, while all studies develop a comparative analysis of institutional quality across countries, they focus on peculiar aspects of the notion of institutions. These different aspects, in turn, not only play specific roles in shaping national economic performance but they also interact among each other.

The first paper in this task is titled “Institutional Quality and Growth in EU Neighbouring Countries” (Bartlett, Čučković, Jurlin, Nojković and Popovski) and provides an investigation of the link that exists between economic growth and institutional reform. Furthermore, since institutional reform implies change, the authors also explore the extent to which institutional (formal and informal) in NCs converge with EU norms. Recalling (Acemoglu and Robinson, 2012) and based on the anecdotal evidence that NMS exhibit better economic performance and institutions than other transition countries that are less integrated with the EU, their central hypothesis is that institutions that guarantee political and civil freedoms and rule of law are necessary for economic development. Empirical test is therefore aimed at studying whether convergence towards transparent, stable institutions compatible with those in consolidated democracies and the developed market economies of the EU, has a positive impact on economic growth and development of NCs.

The second contribution named “The Quality of National Institutional Environment of EU and Neighbouring Countries in Comparative Perspectives” (Hlepas) offers an analysis of convergence/divergence dynamics in institutional quality across countries and time and their influence on global competitiveness. The operationalisation of the empirical comparative research is based on the construction of four pillars of institutional quality (“Government Effectiveness”, Regulatory Quality”, “Rule of Law”, “Control of Corruption”) and a “composite” Index of Institutional Quality for each examined country. According to the different “waves” of Europeanization and geographical criteria, several groups of countries are comparatively analyzed: EU 15 old member states, EU 12 new member states, EU 27, candidate countries, ENC countries (south and east) and Black Sea countries.

Third, in the paper “Governance in the European Union and Neighbouring Countries” (Kaasa) an exploratory analysis on the level of governance quality is conducted for EU27 countries and 27 NCs. Six different measure of governance from the World Governance Indicators are employed in this comparative study and include (i) Voice and Accountability, (ii) Political Stability and Absence of Violence/Terrorism, (iii) Government Effectiveness, (iv) Regulatory Quality, (v) Rule of Law and (vi) Control of Corruption.

Finally, in “Similarities and differences of institutional change between ENP countries and other catch-up countries” (Revilla-Diez, Schiller and Zvirgzde) a comparative study of institutional change is carried out analysing NCs and East Asian economies. The role of institutions, both formal and informal, for uneven economic growth is clearly proved to be prominent in East Asian countries as well-known catch-up states. By contrast, institutional transformation of most ENP countries shows how the low quality of institutions affects negatively economic transformation. The role of the government in high performing Asian economies is compared to the role of centralized

post-communist governments within the perspective of institutional path-dependency and informal institutions being unready to accept formal institutional transformations.

## **2. General conclusions**

Task 5.3 generally addresses the relationship between national institutional quality and economic development. In this respect, a particular focus is devoted to the comparison between European countries (both old and new) and other group of countries including ENP countries and candidate countries. The aim of the Task is essentially that of exploring the current status of national institutional environment in interest countries and assessing the importance of institutional change in bridging the development gap. Main results found by individual contributions are as follows:

In first paper, “Institutional Quality and Growth in EU Neighbouring Countries” (Bartlett, Čučković, Jurlin, Nojković and Popovski), several key conclusions emerge from the analysis. Overall, ENP countries show a weaker institutional convergence to the EU than candidate countries. Some institutional aspects, such as political stability, governmental accountability, freedom of media and control of corruption are important for the success of economic policies. However, nominal adoption or transposition of EU norms and rules does not guarantee successful institutional performance as the continuing problems in Bulgaria and Romania demonstrate. Moreover, although Eastern ENP countries have shown considerable progress in the last years, they lag behind others in creating a stable rule of law, political and economic freedom, respect for minorities and free media and are still considered as only partly free societies with respect to political and civil liberties. The convergence target is not yet reached and the final outcome is far from certain. Fourthly, the EU has not yet played an important role as a “transformative power”, shaping faster institutional convergence and there is a danger that the reform processes will either stagnate or “run out of steam” if the EU does not take a more decisive role in the process. In sum, the process of institutional reform is incomplete due to an absence of a clear European perspective. Reforms should focus as much on informal institutions as on formal institutions. For example, the development of institutions based around improvements in social capital that would counteract the deeply rooted tolerance for corruption would contribute greatly to the elimination of the “governance gap” between these countries and the EU. Finally, the research suggests that capacities for change are improving based on the considerable improvements in the quality of education and in the capacity for innovation.

In “The Quality of National Institutional Environment of EU and Neighbouring Countries in Comparative Perspectives” (Hlepas), the analysis suggests that, in line with some previous studies, institutional reform is a positive force for economic development. While this does not shows that a country’s global competitiveness is only shaped by institutions, it suggests that institutional change may have beneficial effects. The study argues that at the macro level Europeanization process shows incremental progress in the quality of national institutional environments and in the global competitiveness of the countries. The adoption of “European acquis”, either through legal compliance of the regulative and legislative framework, or through “voluntary” domestic policies in the framework of new Governance arrangements has certainly improved the institutional quality and its positive impact on economic development in EU and neighboring countries. Notwithstanding, important differences have been also detected, concerning the

trends of convergence and divergence among countries and groups of countries. These trends change also across time. Thus in the period of “Enlargement euphoria”, until 2006, candidate countries being under strong Europeanization pressure improve their institutional quality converging to the EU 15 average, while after 2006 stagnation is evident. Even among the core EU 15 countries a divergent pattern is detected. Southern European countries, such as Greece, Italy, Portugal and Spain diverge after 2006 from the EU 15 average, indicating a deterioration of their institutional quality, while northern countries are above the EU 15 average.

In the third contribution to this report, ““Governance in the European Union and Neighbouring Countries” (Kaasa), the exploratory analysis conducted on governance indicators reveals that most post-communist countries tend to have lower levels of governance quality than old western economies. Among the latter, North-European countries have the highest and South-European countries the lowest governance quality. It can be said that the communist background seems to have a strong influence, as those countries (except for Baltic countries that are already in EU) that belonged to the former Soviet Union have the lowest levels of governance quality. Among the countries of Middle East, the governance quality in North-African countries is, comparable to the countries that belonged to the former Soviet Union.

Finally, in the paper on “Similarities and differences of institutional change between ENP countries and other catch-up countries” (Revilla-Diez, Schiller and Zvirgzde) it is suggested that there is a number of reasons why the post-communist economies lag behind as compared to the high performing Asian countries that outstrip competitors in terms of economic growth. First and foremost, post-socialist states did not manage to effectively change the institutions of the old regime for the new efficient ones. Secondly, even the minor institutional changes incorporated failed to work out as planned due to the lost faith in the state and absence of fit with the existing informal institutional environment. In this respect the path-dependency of institutions is addressed with an affirmation of the fact that institutional transformation is endogenous in its sense. Furthermore, institutions are place-dependent, meaning that institutional regimes are formed within specific regional contexts and the more institutions are embedded in those regional contexts, the less flexible they are to accept the changes. Thirdly, in contrast to East-Asian states, other transition economies failed to build up government-business supporting relationships, since while in East Asia the government has never intended to replace the market, in post-Soviet states the government has tried to rule despite the market, not in favor of it.

Overall, these working papers offer a comparative view of national institutional environment in ENP countries. The comparison with EU countries, both old and new, suggest that the speed of the process of convergence of institutional quality towards European norms and values is still slow, although some progresses have been registered. Good institutional quality appears extremely important in the ENP area to encourage economic actors to get involved in economically productive activities and to trigger economic development. For this purpose, institutional change and reform is strongly needed.

# Institutional Quality and Growth in EU Neighbourhood Countries

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## **Abstract**

The research has investigated the relationship between institutional reform and economic growth in the European neighbourhood policy (ENP) countries, and the extent to which formal and informal institutions have converged towards EU norms. Several key conclusions emerge from the analysis. First, the ENP countries show a weaker institutional convergence to the EU than candidate countries. Secondly, political stability, governmental accountability, freedom of media and control of corruption are important for the success of economic policies. However, nominal adoption or transposition of EU norms and rules does not guarantee successful institutional performance as the continuing problems in Bulgaria and Romania demonstrate. Thirdly, although Ukraine and Moldova have shown considerable progress over the last eight years, they lag behind others in creating a stable rule of law, political and economic freedom, respect for minorities and free media and are still considered as only partly free societies with respect to political and civil liberties. The convergence target is not yet reached and the final outcome is far from certain. Fourthly, the EU has not yet played an important role as a “transformative power”, shaping faster institutional convergence and there is a danger that the reform processes will either stagnate or “run out of steam” if the EU does not take a more decisive role in the process. In sum, the process of institutional reform is incomplete due to an absence of a clear European perspective. Fifthly, in the ENP countries changes in the complementarity of institutional reform are positively related to growth, and changes in reform level and reform complementarity have a greater effect on growth than in other regions. A corollary is that reforms that reduce institutional complementarity are likely to have a significant negative impact on economic growth. In Ukraine and Moldova the consequence is an increase in corruption and in political instability. The change in formal institutions brought about by reforms should therefore not be allowed to outpace the (slower) change in informal institutions. Reforms should therefore focus as much on informal institutions as on formal institutions. For example, the development of institutions based around improvements in social capital that would counteract the deeply rooted tolerance for corruption would contribute greatly to the elimination of the “governance gap” between these countries and the EU. Finally, the research suggests that capacities for change are improving based on the considerable improvements in the quality of education in Ukraine, and in the capacity for innovation in Moldova.

## **Keywords**

Institutions, governance, structural reforms, transition, growth

## **JEL Classification**

P2, O40, C33

## **INTRODUCTION**

Although the role of institutions in social transformation has been extensively analysed in the sociological literature, their importance has only recently been recognised within economic theory. In the period after WWII, economists argued that physical and financial capital, labour and technical progress could explain most differences in the rate of economic growth and development between countries (Solow, 1956). In the 1980s, the development of endogenous growth theory introduced the role of innovation (Romer, 1986) and education (Lucas, 1988) as important factors in explaining economic growth and development. However, since the beginning of the 1990s and the transition of the former socialist countries into market-based economies, interest in the quality of institutions as an important determinant of economic growth has increased considerably (Elster et al. 1998). The idea that institutions in both the public and the private sectors have distinctive role to play in supporting economic development is widely acknowledged (Acemoglu and Robinson, 2012; Rodrik, 2008). It has been argued that appropriate institutions can trigger economic growth and act as important growth accelerators (Housemann et al., 2004). The positive link between the quality of institutions and economic growth has been widely explored and empirically tested.<sup>17</sup>

Increasingly, investors take into account the quality of institutions as an important factor in assessing the risk of business operations. This is because the institutional framework creates both incentives and disincentives for economic transactions and business decisions. Firms are generally keen to invest in countries which protect property rights, have a developed legal framework and enforced rules of law, well developed public services without burdensome bureaucracy, redundant regulation or corruption. It is also

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<sup>17</sup> The important empirical work on measuring institutional quality has been done by the World Bank; World Economic Forum, OECD; EBRD, Transparency International, Freedom House and others. For the theoretical background see the works of many neo-institutional economists started from North, 1990; Williamson (1994), Hodgson (1998), La Porta et al (1999), Rodrik (2004), Rodrik, (2008), Acemoglu, Johnson and Robinson (2004), Acemoglu and Johnson (2005), Boettke (2000) and many others. For the good overview of literature of literature see Campbell (2004).

important that government policies are transparent, the judiciary does not hinder business and there is strong protection against crime and fraud. Institutional failures, on the other hand, significantly raise transaction costs for firms if public institutions fail adequately to enforce property rights, fail to protect business contracts or fail to ensure an adequate level of information to all market agents. Basic rules of conduct (both formal and informal) of citizens and enterprises and the instruments used to control corruption all reflect the capacity of society to efficiently enforce regulations and contracts (Budak, 2006; Budak and Sumpor, 2009). Such elements should be taken into account in measuring the quality of the institutional framework.

Political institutions affect the choice and shape of economic institutions both directly and indirectly, although the relation between institutions, governance and economic growth is complex (Acemoglu et al. 2004). The central hypothesis of empirical research into the impact of the quality of institutions on economic development is that institutions that guarantee political and civil freedoms and rule of law are necessary for economic development (Acemoglu and Robinson, 2012). Both institutions and governance structures are important for understanding the path of economic growth and why some countries have been more successful than others in building market-compatible institutions (Beck and Laeven, 2005). Transition countries that are better integrated into the EU such as the new member states (NMS) demonstrate better long-term economic performance and governance capacities than the countries in the European Neighbourhood or even EU candidate countries, and the quality of their institutional framework may provide some answers why this is so.

In our analysis we test the above hypothesis to see whether convergence towards transparent, stable institutions compatible with those in consolidated democracies and the developed market economies of the EU, has a positive impact on economic growth and development of the European Neighbourhood countries (ENC). Further conceptual frameworks for analysis of the quality of ENC institutions is set out in the analysis presented in the conceptual papers produced within the SEARCH project, especially Monastiriotis and Borrell (2012), Ascani et al. (2012) and Wesselink and Boschma (2012). This paper will map the quality of institutions measured by various governance indicators and assess the degree of “institutional complementarities” and harmonization with the EU in two European Neighbourhood countries, Ukraine and Moldova, which

have stated their political aspirations to integrate with the EU and started to work towards institutional arrangements to achieve that goal. Both countries are part of the European Neighbourhood Policy (ENP) as well as the EU Eastern Partnership (launched in 2009) which also includes Armenia, Azerbaijan, Belarus and Georgia. Although the EU is unlikely to enlarge on such a scale as it did in the 2000s, it nevertheless aims to facilitate political and economic development of its neighbours and bring them closer to its vision of Europe as a space of democracy and market economy based on respect for the rule of the law and human rights. These ENP countries will be compared with two accession and candidate countries (ACC), Croatia and Macedonia.

The next section sets out some theoretical background to the relationship between institutional reforms and economic growth in transition countries, exploring the concepts of social capital and institutional complementarity. Section 3 discusses the methodology of the research. In section 4, the comparative patterns of institutional evolution in the case study countries (Bulgaria, Croatia, Macedonia, Moldova, Romania and Ukraine) are analysed based on an exploration of a number of international databases on institutional quality. In section 5 an econometric analysis of the role of institutional complementarity in explaining differences in economic growth performance in transition economies is developed, comparing the ENP countries with other country groupings. Section 6 sets out the policy conclusions.

## **THE QUALITY OF INSTITUTIONS AND SOCIAL CAPITAL**

To understand economic transition and growth it is not enough to analyse physical and human capital; it is vital to also understand the broader context in which they perform. The discussion above has suggested that the level of institutional reform may affect the rate of economic growth in transition countries. However, in this paper we argue that it is not just the level of institutional reform that determines growth but also the path of change in the various institutions that make up the economic and social system that is important in explaining growth. Douglass North (1990) was among the first to highlight the role of both formal and informal institutions for economic performance. Formal institutions are formed by sets of rules such as laws and property rights, while informal rules are “a part of the heritage that we call culture” (North, 1990: 37). North’s analysis initiated a growing

literature addressing formal and informal institutions in relation to economic development. Institutions evolve over time. This point is rather important, especially in the context of the transition countries in Eastern Europe, the Western Balkans, and the European Neighbourhood region. Political and economic changes in the early 1990's meant that formal institutions that define the economic, political and legal systems have changed in a short period of time. However, informal institutions have needed time to absorb these changes as they have evolved at a slower pace. This suggests that during the process of transition the change in formal institutions may outpace the change in the informal institutions. If "institutional complementarity" is important to ensure the coherence of an economic and social system (Amable, 2003) then it is likely that the coherence of institutions diminishes during the initial stages of transition, and this may have adverse effects on economic growth. Institutions may become less complementary in these early stages of transition, and it may only be in a later stage of transition that the complementarity of institutions is restored, as informal institutions catch up with the rapid pace of change of formal institutions. We return to this point later in section 4 below.

Informal institutions have also been analysed by sociologists. Pierre Bourdieu (1986) has identified social, cultural and symbolic capital as specific institutional configurations that also determine the pace of economic development and specifically the structure of social differentiation and inequality. Given the EU's new emphasis on "inclusive growth" in the Europe 2020 Strategy this would seem to be an important consideration for our analysis. Bourdieu argues that social capital depends on cultural capital, which in turn is formed by the acquisition of knowledge and skills that give a person a higher status in society. Furthermore, symbolic capital reflects additional resources based on prestige, status and honour. All these forms of capital are important elements in determining the extent of social inclusion. Bourdieu also emphasises the role of social networks as an important element of social capital (what North would call informal institutions) realising that they are underpinned by formal rules (the rule of the law and property rights). Individuals gain resources in the form of social, cultural and symbolic capital in part through their membership of social networks (Bourdieu, 1992). In this theoretical approach, any type of network could be used to gain advantage, including institutional as well as family networks.

The theory of social capital was also developed by Robert Putman who identified social capital with social networks. “Social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them” (2000:19). In his analysis of social capital he stresses the importance of being involved in a community. The destruction of communities which can occur with large structural changes such as those which occur during the process of economic transition represents a loss of social capital. This view, that social capital is essentially a question of membership in groups, has been adopted by international organisations such as the World Bank. However it has come under attack for neglecting the role of power relations and interests of the dominant elites which shape and provide a context to the institutional framework and which limit the extent of institutional reform (Harris, 2002; Spencer, 2011). Institutional reforms have become stuck at a sort of half-way stage in many transition economies, a phenomenon that can be explained by the resistance to continuing reform imposed by specific interest groups.

Institutional reforms in transition economies can be seen the outcome of a policy process which involves a political struggle between pro-reform and anti-reform elite groups and the emergence of political coalitions which have specific interests in the outcome. In the transition literature there has been a long debate about the relative influence of ‘winners’ and ‘losers’ on the transition process. According to one account, the potential losers from the transition process are likely to resist reform, and present the reform process with severe political constraints (Roland, 2000). The losers, including workers thrown out of their jobs as a consequence of the privatization and restructuring of state owned enterprises may be mobilized into opposition to reform by members of the old elites, including managers of state-owned enterprises and the top echelons of the security establishment who prefer the status quo to radical reform. In order to minimize this opposition to reform, pro-reform leaders should ensure that economic reforms are accompanied by appropriate social reforms, and that a social safety net is established to compensate vulnerable groups for their losses (Kramer, 1997). Another view holds that it is the winners from reform that are the most dangerous opponents of reform progress (Hellman, 1998). The winners are the new elites who gain from the early stages of reform. They include managers of large privatized enterprises, politically well-connected tycoons who gained privatized assets at bargain prices, media barons and directors of public institutions who owe their positions to political connections, and political leaders who

represent these groups. According to this view, in a partially reformed economy, new elites establish monopoly positions that provide opportunities for rent-seeking, and they strive to prevent further reforms that would undermine their new privileges.

Social capital as an outcome of institutional reform can therefore be seen as a contested concept. While for Putnam, social capital is essentially a positive resource, for Bourdieu social capital can have both positive and negative consequences because social networks are both inclusive and exclusive at the same time. An example is the Mafia, for which ties within a family are strong while at the same time members of the broader community are mistrusted. The Mafia has developed a strong presence in the EU Neighbourhood region (Glenny, 2008). Opinion polls have shown that the belief that organized crime and the mafia are the most influential group in Ukrainian society has increased over time (Panina, 2005).

A further influential analysis of social capital has been developed by Francis Fukuyama who emphasised the important role of inter-personal trust and economic and social networks in promoting economic growth (Fukuyama, 1995). In his view, social networks play an important role in market economies since they reduce the transaction cost of doing business on the basis of arms-length contracts with strangers by substituting for the need to monitor and enforce formal agreements. The networks that Fukuyama describes are those based on honesty, the keeping of commitments, reliable performance of duties and reciprocity - networks that have positive externalities for one's own group as well as for the broader society.

The transition countries provide an interesting example for the analysis of the role of institutions, social capital, trust and networks in explaining differences in the rate of economic growth and development among countries. In the 1990s, the institutional legacy of communism imposed a strong inertia on the evolution of institutions in both Ukraine and Moldova, as in other transition countries. Thus for example, many organizations and associations formed after the collapse of communism were connected with organizations from the communist period; trade unions, the industrialists' unions and agricultural organizations that were seldom independent from the state that either controlled them or co-opted them. Furthermore, the state discouraged the development of civil society on the basis of independent social networks, NGOs and pluralistic institutions. In cases where the

state guaranteed a space for civil society its goal was often to fragment it and to prevent the emergence of independent associations (Kubichek, 2000).

## **EMPIRICAL METHODOLOGY**

The starting point of this research is the hypothesis that institutions affect the conditions in which economic agents, entrepreneurs and citizens interact, especially with regard to the stability of political institutions and accountability of the government, voice in government policy-making, extensiveness of corruption and state capture, the quality of entrepreneurial infrastructure and business environment, and the quality of public services (education, quality of research and development system and the innovation system). Among their effects, we distinguish those that affect all citizens (such as stability of political institutions, accountability of government or level of corruption) from those that affect in particular entrepreneurs and investors (such as business environment and quality of public services). The analysis identifies the trends of convergence/divergence in the quality of governance indicators for the selected of countries, especially having in mind the geographical focus of the SEARCH Project. The analyses will also explore whether the pressure of Europeanization has provided an incentive to develop structures and institutions compatible with the other EU member states. For accession and candidate countries, the EU membership negotiations have also been an important external influence on national policies, institutions and governance structures, while the EU neighbourhood countries have been able to acquaint themselves with the conditionality and procedures for the accession.

In this paper, the institutional environment refers to the development of democratic institutions, which include both formal institutions such as parliaments and political parties as well as informal ones, such as civil society organisations. The rule of the law as well as respect for human rights is another important characteristic of the institutional environment. We focus on selected institutions as measured by the Worldwide Governance Indicators (WGI) from the World Bank Governance Matters database (Kaufmann et al., 2010). Kaufmann defines governance as “*traditions and institutions by which the authority in a country is exercised. This includes a) the process by which the governments are selected, monitored and replaced; b) the capacity of government to*



*effectively formulate and implement sound policies and c) respect of citizens and the state for the institutions that govern economic and social interactions among them”* (Kaufmann et al., 2010: 4). Our analysis will build on that understanding of institutions by using data from other international sources such as Freedom House, Transparency International, UNESCO and the World Bank Doing Business database.

The institutions of public governance institutions, along with their misuse through corruption and state capture, continue to shape business environment in transition countries, especially in the European neighbourhood. Empirical analyses have suggested that the quality of institution has an important impact on economic growth (Acemoglu et al 2004; Kaufman et al., 2010) as the choice of institutions reflects the initial distribution of political power and economic resources. Also different interest groups and especially ruling elites (Bartlett and Prica, 2012) may succeed in rent seeking and creating institutions that are favourable only to them and not for society as a whole. Several authors have argued that political and administrative corruption presents a significant obstacle for doing business in many transition economies (Griffits et al, 2009; Grodeland and Aasland, 2011; Dreher and Gassebner, 2007).

Our analysis of quality of institutions consists of various governance indicators combined at three levels, including but not limited to the following:

1. Overall political governance (such as political stability, government accountability, control of corruption, and civil liberties)
2. Institutions shaped by the public sector (education, R&D, innovations and the quality of infrastructure).
3. Business environment institutions in a narrower sense, such as enforcing contracts and protecting investors, the availability of credit, property rights and the ease of obtaining licences and permits.

Our focus will be on qualitative data analysis although in measuring the quality of public sector institutions, we will also construct a quantitative indicator (the Institutional Quality of Public Sector Index) as well as identify the trend of convergence or divergence of the selected countries measured by changes in the coefficient of variation over time. The period examined will be 2004-2011, to be compatible with the ICBSS analyses.

It should be noted that the WGI indicators are not without their critics. These argue that the World Bank defines governance as the way in which power is exercised in the management of a country's economic and social resources for development and stresses the role of the government. In short, for the World Bank the governance is what government does. However, social scientists have suggested that there is a need for the broader definition of governance, so that it includes both formal and informal institutions. "Governance refers to the formation and stewardship of the formal and informal rules that regulate the public realm, the arena in which states as well as economic and societal actors interact to make decisions" (Hyden et al. 2004:16). The WGI indicators are based on hundreds of specific and disaggregated individual variables measuring various dimensions of governance taken from 35 data sources provided by 32 different organizations. The data reflect the subjective views of respondents from the public and private sectors and NGO experts, as well as thousands of survey respondents. The World Bank Governance Indicators are often criticised on technical and objective grounds. First, the data reflects points of view of experts. Yet, even if experts are not biased they are just one, usually small however vocal, group in a society. Second, how concepts are defined plays an important role in collecting data and interpreting them.

We start the examination of the quality of the public governance institutions in selected countries by looking at indicators of political stability, government accountability, success in the control of corruption, the protection of civil liberties and the effectiveness of governance institutions. We compare these indicators for selected accession, candidate and neighbourhood countries as well as the new EU member states directly bordering with the region. The point of departure of our analysis is the premise that effective public governance is underpinned by institutions that ensure political and democratic stability, political and civil freedoms and the rule of law. The focus of our analysis is to assess the institutional framework of Ukraine and Moldova, two members of the European Neighbourhood Policy (ENP) group, and extent of democratization and political stability of their governance institutions and the capacity to combat corruption. Two accession and candidate countries (ACC) Croatia and Macedonia are selected to illustrate the path ahead for Ukraine and Moldova on their way towards the EU. For comparisons, we added Bulgaria and Romania as two neighbouring new EU member states from the SEE region to see if they stand out when compared to selected ACC and ENP countries (see Table 2

in the Appendix). For this analysis we use the World Governance Indicators (WGI) dataset 2004-2010<sup>18</sup>. WGI provides percentile rank in the range of 1-100 for selected countries grouped into four categories: 0-25; 25-50; 50-75 and 75-100. The higher percentile rank the country holds, the better governance institutions function and perform.

## **RESEARCH FINDINGS**

According to the governance indicators (see Table 1. in the Appendix) despite the progress in compliance with democratic principles and rule of law, both Ukraine and Moldova are still fragile in terms of political stability, freedom of expression and media freedoms, as well as implementation of electoral processes. Both states are also characterised by lower levels of government's accountability and confusing responsibility chains. But most of all, dealing with corruption remains the greatest problem these countries face. This is not surprising, given the political struggles and accompanying social and economic instability in the last decade, which made these two countries politically vulnerable, unstable and democratically less consolidated when compared to Croatia and Macedonia which had rather similar histories in the 1990s. The world financial and economic crisis has additionally aggravated the public governance problems of both Ukraine and Moldova (EBRD, 2011) and, according to the EBRD reform index, despite considerable progress on various reform fronts they continue to belong to the group of "slow reformers".

In 2004, the "Orange Revolution" in Ukraine increased expectations for the creation of a functioning democracy and market institutions. It brought about important changes that improved the constitution and brought the electoral system closer to international democratic standards. However, this also created new divisions among pro-reform forces and created political instability. Since 2006 the country has entered into a profoundly unstable period characterised by early elections and frequent changes of governments and struggles among political opponents including the arrest, conviction and imprisonment of former pro-reform Prime Minister Timoshenko. All these developments prevented the full consolidation of democratic institutions and a reduction of the trust placed in them and in the political elite. Political institutions have remained inadequately reformed and

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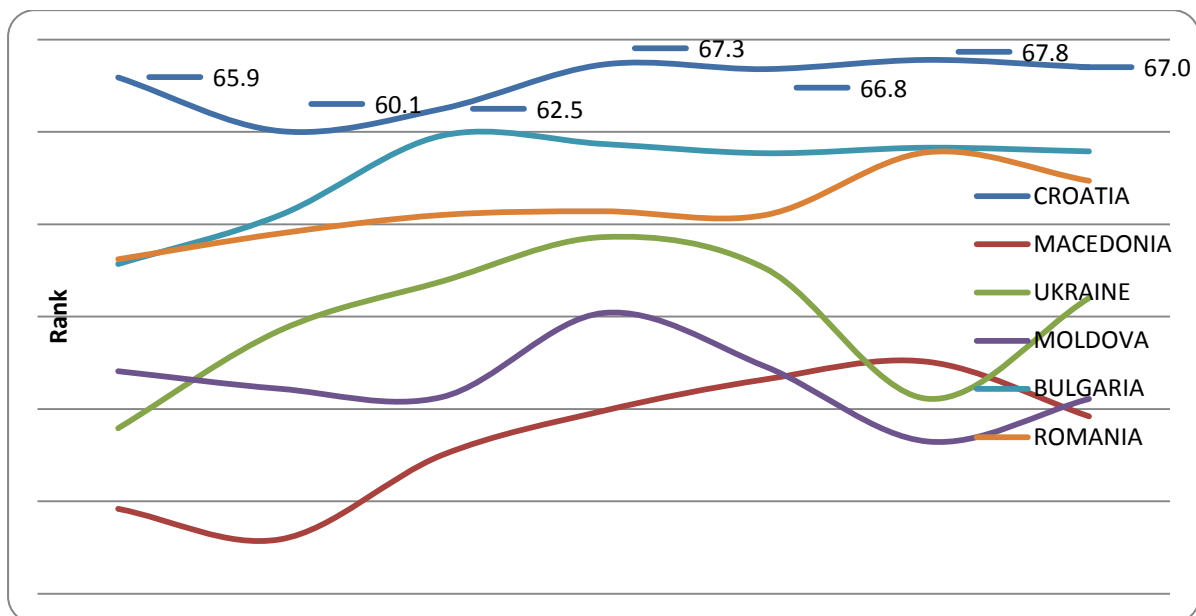
<sup>18</sup> The data for 2011 are still not publically available.

inefficient by international standards (FRIDE; 2010). Nevertheless, this non-linear and uneven progress in building the political institutions and other institutions of governance have not altered the underlying political consensus on the main directions of socio-economic development in Ukraine towards a market economy integrated with the EU. Most recently, in 2011 there has been some progress with both institutional and structural reforms (EBRD, 2011). For instance with regard fighting corruption, a new Anti-corruption Law become effective in July 2011 aimed at reducing red-tape and introducing measures to make the institutions of public administrative more effective.

In Moldova, the situation is rather similar with regard the changes in institutional and governance structures. However, political instability has been aggravated by the deadlocked conflict concerning secession of the eastern region Transnistria. As the situation has not been resolved for many years, most analysts consider this a determining reason why it was not possible to transform the country into the well-governed democratic state (Nieman and de Wekker, 2010). The secession of Transnistria was not internationally recognized but nevertheless still poses a serious political problem for Moldova as it threatens its sustainability as a state and blocks its faster transformation and integration efforts. The shared neighbourhood of Moldova between EU and Russia is another geopolitical aspect that prevents any easy and hasty solutions of that matter.

Not surprisingly, Croatia is the best ranked in the selected countries, given that it successfully complied with all the required political conditionality and transposed most of the common legal rules and adjusted its institutional system to the EU *acquis communautaire* as a precondition for joining the EU on 1 July 2013. Macedonia, another candidate country, has lower scores, especially in perceptions of political stability that have been aggravated by the dispute with Greece over the name of the state.

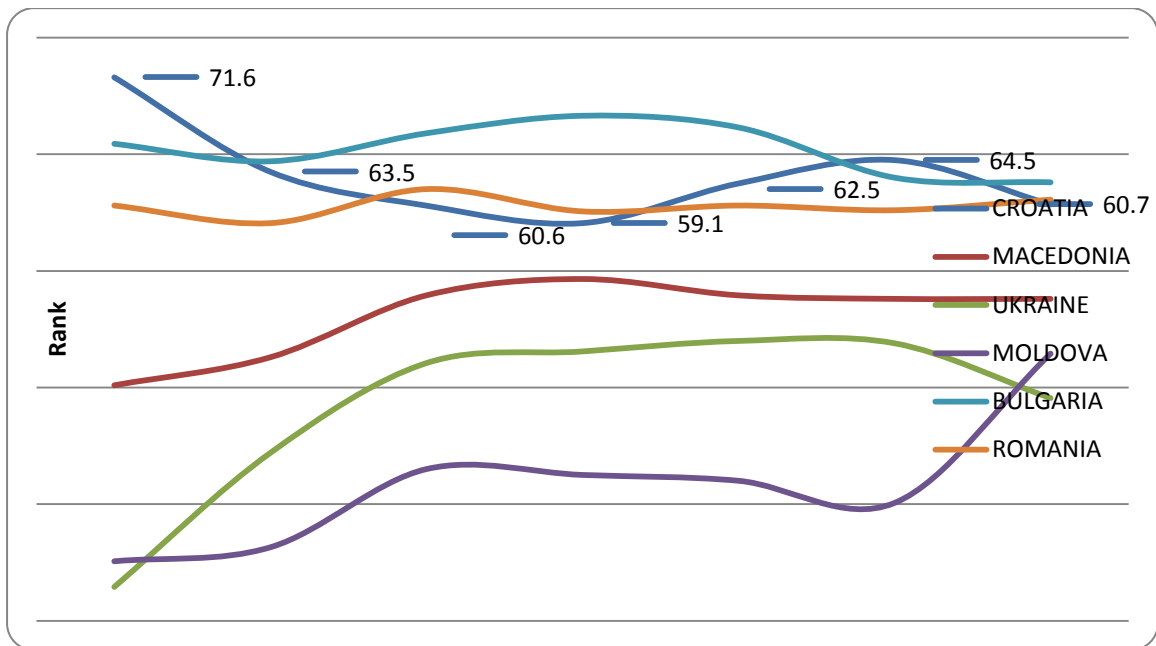
**Figure 1: Political Stability Rank (2004-10)**



Source: WGI dataset 2011, The World Bank

Bulgarian and Romanian indicators are weaker than those for Croatia, indicating the persisting problems in the control of corruption, freedom of media and other civil liberties and political stability. However, there is some progress, particularly in Romania since it joined the EU, especially with regard political stability while control of corruption has slightly improved right before and a year after joining the EU, but has worsened since 2008. In Bulgaria, the indicators of the perception of corruption control, voice and accountability of government have also worsened since 2007. It seems that intensified monitoring of combating corruption and increasing effectiveness of judiciary over the last five years has produced weak results. Given that fact, the toughening of the accession conditionality for Croatia and other candidate countries to create efficient institutions for dealing with corruption before joining the EU might be justified. Also the motivation for policy change is much higher in pre-accession period.

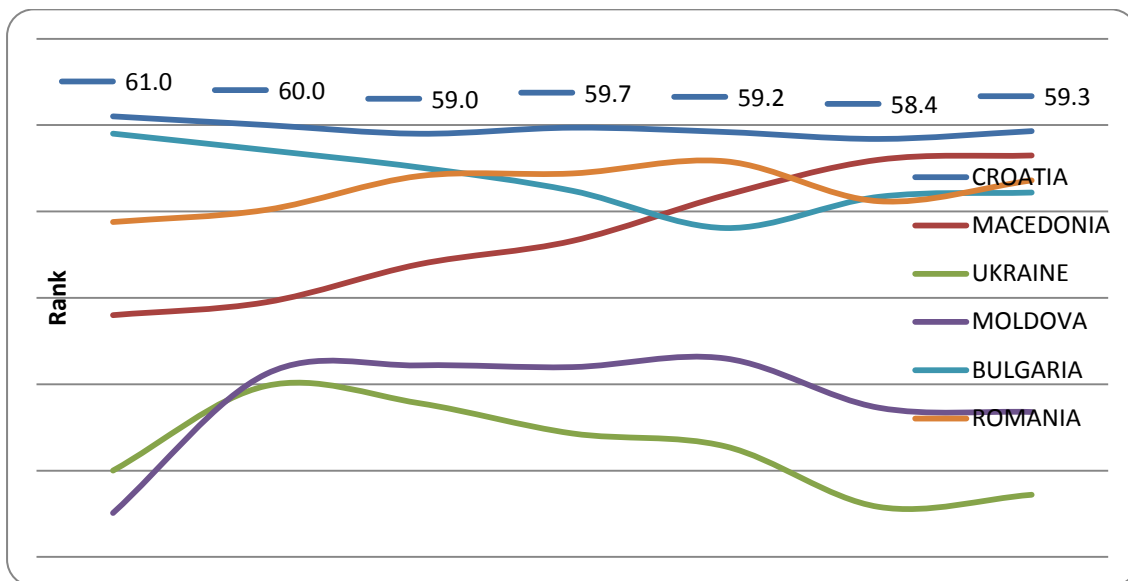
**Figure 2: Voice and Accountability Rank, 2004-2010**



Source: WGI dataset 2011, The World Bank.

As it seems the control of corruption remains weak across the South East Europe region, regardless of EU membership, as the level of corruption has stayed high in both Bulgaria and Romania. An explanation may be the role of the slow change in informal institutions, which are embedded in the culture, history and behaviour patterns in these countries.

**Figure 3. Control of Corruption Rank, 2004-2010**



Source: WGI dataset 2011, The World Bank

In the European neighbourhood, Ukraine has the weakest institutions to fight corruption and needs to make a concerted effort to catch up with the accession and candidate countries. Combating corruption is among the priorities of Ukraine's recently signed Association Agreement with the EU (December 2011) and it is expected that more significant progress will be achieved in years to come. Moldova has done better, but nevertheless there is a clear gap between ENP and ACC countries in this respect.

According to the Worldwide Governance Indicators, Croatia is ranked better than Romania and Bulgaria in controlling corruption. However, the rank for that indicator has not changed much since 2004, which suggests a lack of convergence to EU norms especially when compared to the New Member States. Macedonia has made significant progress in controlling corruption since 2004, and by 2009-2010 outperformed both Bulgaria and Romania in this respect.

Although the WGI score ranks are actually composed from the indices of Freedom House and Transparency International (TI), it would be useful to look into their rankings separately as their focus slightly differ. The analysis of the control of corruption is therefore complemented by the *Transparency international Corruption Perception Index* dataset as provides more detail on the problem of corruption in public administration.

**Table 3. Corruption Perception Index (CPI) in 2004 and 2011**

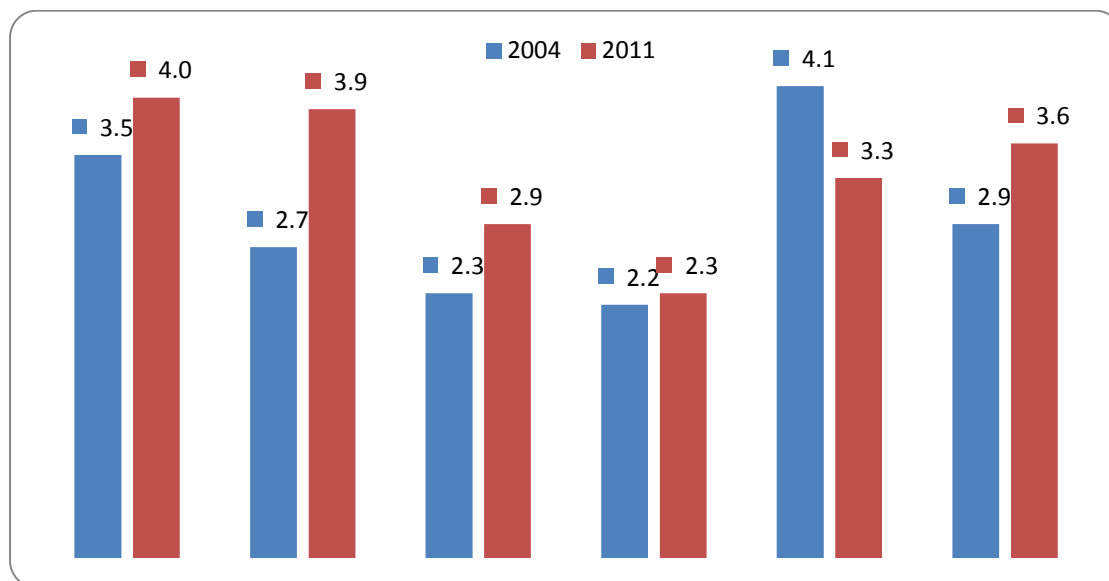
Country	CPI Rank 2004 and Score		CPI Rank 2011 and Score	
<b>MOLDOVA</b>	114 <sup>th</sup>	2.3	112 <sup>th</sup>	2.9
<b>UKRAINE</b>	122 <sup>th</sup>	2.2	152 <sup>th</sup>	2.3
<b>CROATIA</b>	67 <sup>th</sup>	3.5	66 <sup>th</sup>	4.0
<b>MACEDONIA</b>	97 <sup>th</sup>	2.7	69 <sup>th</sup>	3.9
<b>BULGARIA</b>	54 <sup>th</sup>	4.1	86 <sup>th</sup>	3.3
<b>ROMANIA</b>	87 <sup>th</sup>	2.9	75 <sup>th</sup>	3.6

*Source: Corruption Perception Index, Transparency International, 2004 and 2011, Explanatory Notes: CPI score relates to perceptions of the degree of corruption as seen by business people and country analysts and ranges between 10 (corruption free) and 0 (highly corrupt)*

As with the WGI indicators, Croatia is best ranked according to the TI Corruption Perception Index 2011, remaining in 66<sup>th</sup> – 67<sup>th</sup> place during 2004-2011. The perception

of corruption substantially worsened in Bulgaria, falling from 54<sup>th</sup> in 2004 to 86<sup>th</sup> place in 2011, diverging from other NMS. Ukraine plunged even further from 122<sup>th</sup> to 152<sup>th</sup> place, while Moldova improved its rank by only two places, from 114<sup>th</sup> to 112<sup>th</sup>. This vividly illustrates the weak capacities of the institutions in ENP to effectively deal with the problem of corruption.

**Figure 4: Corruption Perception Index (CPI) Scores**



Source: *Corruption Perception Index*, Transparency International, 2004 and 2011, *Explanatory Notes: CPI score relates to perceptions of the degree of corruption as seen by business people and country analysts and ranges between 10 (corruption free) and 0 (highly corrupt)*

In Croatia, according to the *Global Corruption Barometer 2011*, the highest corruption is perceived to be in the judiciary, followed by the parliament and political parties. In Macedonia, similarly, the judiciary leads, followed by the political parties and then parliament. In Bulgaria the judiciary is also perceived as highly corrupt and then political parties, public officials and civil servants. In Romania, the most corrupt according to citizens' perceptions are political parties, parliament and judiciary. In Ukraine it is again judiciary, police, public officials and parliament. In Moldova, the police are perceived the most corrupt, followed by the judiciary and political parties.

**Table 4. The extent to which the following institutions are perceived by the public to be most affected by corruption in 2011**

Country	Judiciary	Parliament	Political Parties	Public officials	Police



				<b>and civil servants</b>	
<b>CROATIA</b>	4.1	4.0	4.0	3.8	3.7
<b>MACEDONIA</b>	3.9	3.5	3.7	3.6	3.3
<b>BULGARIA</b>	4.3	3.9	4.1	3.9	3.8
<b>ROMANIA</b>	4.0	4.5	4.5	3.8	3.9
<b>MOLDOVA</b>	3.9	3.7	3.8	3.8	4.1
<b>UKRAINE</b>	4.4	4.1	4.0	4.1	4.3

Source: *Global Corruption Barometer 2011*. Explanatory note: The perceptions are in the range from 1 (not at all corrupt) to 5 (extremely corrupt).

The Global Corruption Barometer also shows the perception of how many people pay bribes. In Croatia, According to *Global Corruption Barometer 2011*, only 5% of people were reported to pay a bribe<sup>19</sup>, and only 8% in Bulgaria. The proportions are around one fifth to one quarter in Macedonia (21%) and Romania (28%), while the proportion is above one third in Ukraine (34%) and even Moldova (37%). These data suggest that the most important policy area in the ENP countries is strengthening institutions to combat corruption, state capture and bribery in order to reduce the transaction costs they impose on the economy. Having such a high percentage of people who pay a bribe suggests that the public officials in the government administration pursue their own agendas rather than the interests of their societies, which increases general transaction costs and distorts the potential for economic growth.

An additional qualitative assessment of overall political stability, respect of political rights and freedoms, local democratic governance, free media and expression other civil liberties as well as control of corruption is provided by indicators from Freedom House. Basically the indicators attempt to describe whether the countries in question are consolidated democracies (scores 1-2.99); semi-consolidated democracies (3-3.99); transitional or hybrid regimes (4-4.99); semi-consolidated authoritarian regimes (5-5.99) or consolidated authoritarian regimes (6.99).

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<sup>19</sup> For comparison, according to UNODC Report „*Corruption in Croatia: Bribery as Experienced by the Population*“ (2011) based on field survey results of systemic and petty corruption which focuses more on people’s experiences with bribe rather than perceptions, the rate of population paying bribes to public officials is higher and amounts around 11%.

**Table 5. Political Freedom Status, Civil Liberties and Political Rights in Ukraine and Moldova, Croatia, Macedonia, 2004-2011**

<b>Country</b>	<b>Year</b>	<b>Political Freedom Status</b>	<b>Civil Liberties (free media, academic freedom, etc) Rank</b>	<b>Political Rights</b>
<b>UKRAINE</b>	2004	Partly Free 4.0	4	4
	2005	Partly Free 3.5	3	4
	2006	Free 2.5	2	3
	2007	Free 2.5	2	3
	2008	Free 2.5	2	3
	2009	Free 2.5	2	3
	2010	Free 2.5	2	3
	2011	Partly Free 3.0	3	3
<b>MOLDOVA</b>	2004	Partly Free 3.5	4	3
	2005	Partly Free 3.5	4	3
	2006	Partly Free 3.5	4	3
	2007	Partly Free 3.5	4	3
	2008	Partly Free 3.5	4	3
	2009	Partly Free 4.0	4	4
	2010	Partly Free 3.5	4	3
	2011	Partly Free 3.0	3	3
<b>CROATIA</b>	2004	Free 2.0	2	2
	2005	Free 2.0	2	2
	2006	Free 2.0	2	2
	2007	Free 2.0	2	2
	2008	Free 2.0	2	2
	2009	Free 1.5	2	1
	2010	Free 1.5	2	1
	2011	Free 1.5	2	1
<b>MACEDONIA</b>	2004	Partly Free 3.0	3	3
	2005	Partly Free 3.0	3	3
	2006	Partly Free 3.0	3	3
	2007	Partly Free 3.0	3	3
	2008	Partly Free 3.0	3	3
	2009	Partly Free 3.0	3	3
	2010	Partly Free 3.0	3	3
	2011	Partly Free 3.0	3	3

*Source: Freedom House, Country Reports, 2004-2011*

Moldova and Ukraine have shown considerable progress in the last eight years but have had difficulties in complying with democratic standards and are still considered to be only partly free societies with selective respect to political and civil liberties.

The Freedom House (FH) data especially point out towards the deterioration of democratic conditions in the last two years in Ukraine whose status altered from Free to Partly Free (limited respect for political rights and civil liberties) due to number of negative political developments that were accentuated by the conviction and imprisonment of Yulia Timoshenko on doubtful charges (Freedom House, 2012). The deterioration was especially visible in the indicator measuring civil liberties and freedom of expression. In Moldova, there were no significant shifts in the assessment of the level of the democratic governance, as the country remained Partly Free throughout the examined period, although there were some signs of progress in 2011 especially with regard media environment and loosening of the political influence over the media. On the other hand, there were setbacks in the protection of minorities' rights, including gay rights, with the government withdrawing an EU-backed Anti-Discrimination Law. The FH ratings provide a separate assessment of the breakaway Transnistria region, considering it to have authoritarian regime lacking respect for basic democratic rights.

**Table 6. Political Freedom Status, Civil Liberties and Political Rights in Bulgaria and Romania, 2004-2011**

Country	Year	Political Freedom Status	Civil Liberties (free media, academic freedom etc) Rank	Political Rights
<b>BULGARIA</b>	2004	Free 1.5	2	1
	2005	Free 1.5	2	1
	2006	Free 1.5	2	1
	2007	Free 1.5	2	1
	2008	Free 1.5	2	1
	2009	Free 2.0	2	2
	2010	Free 2.0	2	2
	2011	Free 2.0	2	2
<b>ROMANIA</b>	2004	Free 2.0	2	2
	2005	Free 2.5	2	3
	2006	Free 2.0	2	2
	2007	Free 2.0	2	2
	2008	Free 2.0	2	2
	2009	Free 2.0	2	2
	2010	Free 2.0	2	2
	2011	Free 2.0	2	2

Source: Freedom House, Country Reports, 2004-2011

The Freedom House data also confirm that Croatia, Bulgaria and Romania belong to the group of consolidated democracies and could be considered as free societies with democratic respect of political and civil liberties, free media, academic and other freedoms. Also their ability to control corruption is also higher, despite the fact that problems remain.

### *Institutional Quality of the Public Sector*

In trying to measure the most important elements of the quality of services generally provided or organized by the public sector we focused on four elements i.e. pillars that may be crucial for economic growth and in particular for capacities of human capital development and for business development. These pillars are education, research and development (R&D), innovation and the use of information and communication technologies (ICT). In this preliminary analysis we relied on the secondary database of the INSEADs Global Innovation Index 2012<sup>20</sup>, which uses a variety of primary information sources. For the indicators we have chosen, these sources are UNESCO, International Telecommunication Union, UN Public Administration Network, World Intellectual Property Organization, World Bank Development Indicators and Wikimedia Foundation. The indicators are compared with the average of EU-8 (Central and Eastern Europe members) and EU-14 (old EU-members) and time series will be analysed to indicate convergence or divergence trends for the selected countries over time. For each of the four pillars, we have selected three indicators. The selected indicators and their original values are presented in the following table.

**Table 7. Indicators of the Institutional Quality of Public Sector Index**

	Bulgaria	Romania	Croatia	Macedonia	Moldova	Ukraine
<b>Education</b>						
Years of schooling	13.77	14.72	13.85	13.32	11.85	14.76
Pupil-teacher ratio (secondary)	11.99	12.39	8.33	12.36	10.5	n.a.
Tertiary enrolment	53.02	63.77	49.17	40.42	38.15	79.47
<b>Research and Development</b>						
Gross expenditure on R&D (% GDP)	0.53	0.48	0.83	0.23	0.53	0.86

<sup>20</sup> <http://www.globalinnovationindex.org>

GERD financed by business (% of total)	30.62	34.75	39.79	7.79	0	25.9
Researchers, (per million population)	1767	1430	2697	1002	988	1666
<b>Innovation</b>						
National patent application (per billion GDP in USD PPP)	2.6	5.48	3.49	1.73	11.8	8.34
Royalty and licence fees receipts (per 000 GDP)	0.71	2.88	0.52	0.75	0.84	0.96
Creative goods exports (% total exports)	1.38	2.35	2.82	0.88	4.58	1.18
<b>Use of ICT infrastructure</b>						
Government online service index	0.49	0.52	0.64	0.45	0.52	0.42
ICT use index	3.17	3.2	4.33	3.11	2.26	1.35
Wikipedia monthly edits (per population 15-69)	5227	1887	5651	3907	1482	3076

*Source: Global Innovation Index 2012, INSEAD*

In order to put these data in broader perspective and make them comparable, we have used the original rank values for each indicator, as presented in the Global Innovation Index 2012 report. Combining these rank values for each pillar as a simple average, we calculated average score for each pillar. Finally, we have calculated average values of the respective four pillars to create a single Institutional Quality of Public Sector Index.

**Table 8. Pillars of the Institutional Quality of Public Sector Index (rank values)**

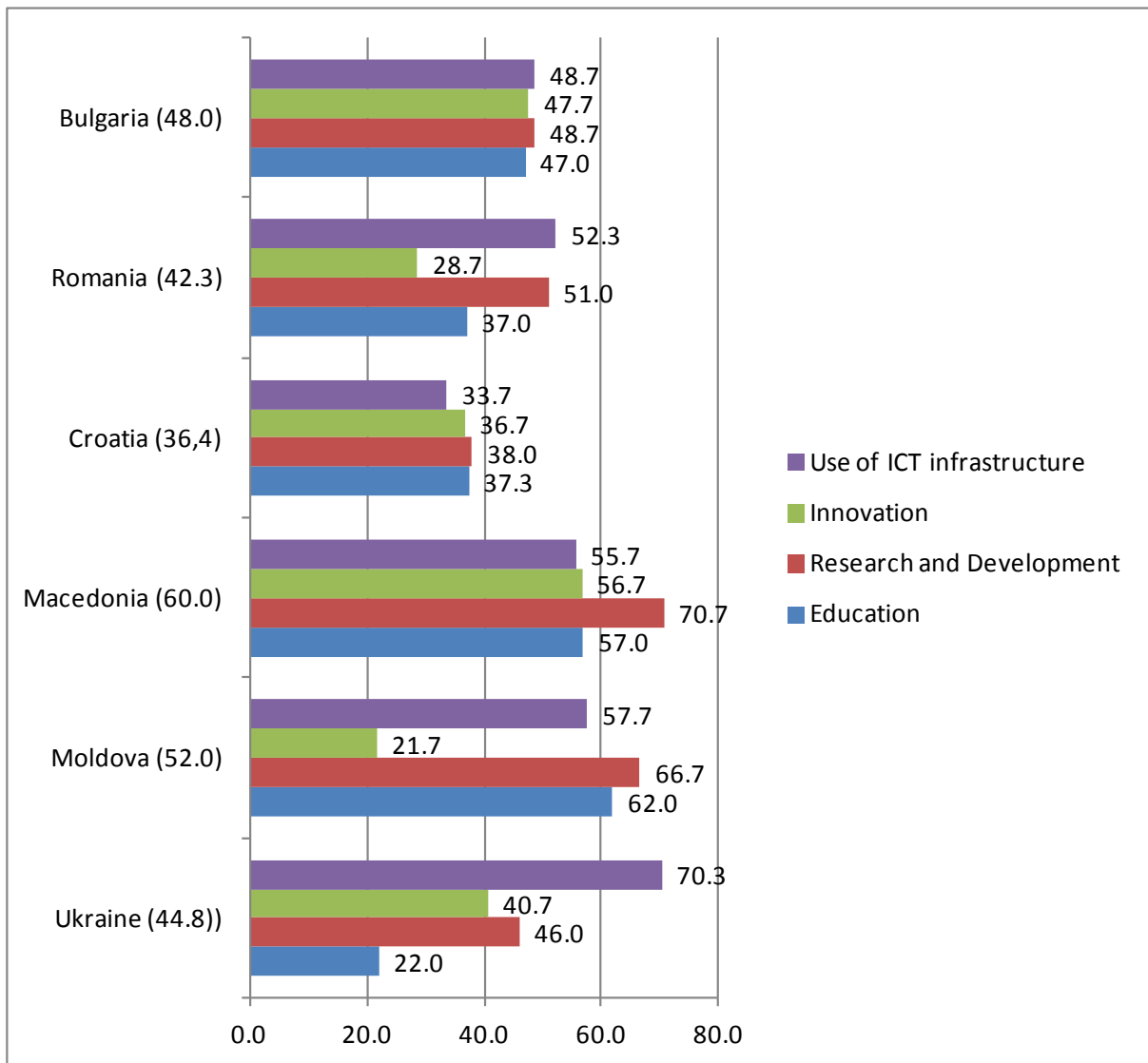
	Bulgaria	Romania	Croatia	Macedonia	Moldova	Ukraine
<b><u>Institutional Quality of Public Sector Index</u></b>	<b><u>48.0</u></b>	<b><u>42.3</u></b>	<b><u>36.4</u></b>	<b><u>60.0</u></b>	<b><u>52.0</u></b>	<b><u>44.8</u></b>
<b>Education</b>	<b>47.0</b>	<b>37.0</b>	<b>37.3</b>	<b>57.0</b>	<b>62.0</b>	<b>22.0</b>
School life expectancy	53	38	52	65	90	36
Pupil-teacher ratio (secondary)	46	51	13	49	34	n.a.
Tertiary enrolment	42	22	47	57	62	8
<b>Research and Development</b>	<b>48.7</b>	<b>51.0</b>	<b>38.0</b>	<b>70.7</b>	<b>66.7</b>	<b>46.0</b>
Gross expenditure on R&D (% GDP)	52	57	40	80	53	37
GERD financed by business (% of total)	51	47	41	76	90	57
Researchers, (per million population)	43	49	33	56	57	44
<b>Innovation</b>	<b>47.7</b>	<b>28.7</b>	<b>36.7</b>	<b>56.7</b>	<b>21.7</b>	<b>40.7</b>
National patent application (per billion GDP in USD PPP)	47	32	41	57	15	25
Royalty and licence fees receipts (per 000 GDP)	37	19	42	36	35	32
Creative goods exports (% total exports)	59	35	27	77	15	65
<b>Use of ICT infrastructure</b>	<b>48.7</b>	<b>52.3</b>	<b>33.7</b>	<b>55.7</b>	<b>57.7</b>	<b>70.3</b>
Government online service index	71	61	40	84	61	88
ICT use index	46	45	33	48	57	81
Wikipedia monthly edits (per population 15-69)	29	51	28	35	55	42

Source: Global Innovation Index 2012, INSEAD. Note: The scores of the indexes (pillars) are calculated as simple averages of the ranks of the underlying indicators, which means the lower value is favourable

This simplified analysis provides a first glance into the present “state of art” in selected countries. Rather unexpectedly, the overall score for Ukraine and Moldova is not as low as expected having in mind rather low level of GDP per capita. The score for the two new EU members (Bulgaria and Romania) is lower than for Croatia and not much better than for Moldova and Ukraine. Macedonia stands out as a country with significantly lower values of the Index and pillars.

Finally, Figure 5 compares values of the four pillars within each country.

**Figure 5. Pillars of the Institutional Quality of Public Sector Index (in brackets)**



Source: Global Innovation Index 2012, INSEAD

Croatia has very similar values of the four pillars, indicating no significant strength and weakness among them. Romania is relatively more advanced in innovation and education, while lagging behind in the use of ICT. Ukraine shows a similar pattern while performing rather well in education. Bulgaria has well-balanced scores, apart from a significantly lower average score for ICT use. Moldova is rather specific case, with very good performance in innovation while education and R&D lagging behind. Finally, Macedonia performance scores the weakest, with comparatively much lower scores in R&D and ICT use.

Ukraine is a specific case with Innovation and R&D pillars surprisingly better than in Bulgaria, while being ranked low in the use of ICT infrastructure. The very good

scores for the Education pillar will be further reviewed because the overall score was very much influenced by high tertiary enrolment figures.

In order to test the previous findings we tried to create a similar, complementary index, composed of the same four pillars, with each of three indicators, using the WEF survey data for 2006-2011. The values of indicators, shown in Table 9 below, were calculated using moving averages – i.e. biannual averages for each indicator to mitigate yearly discrepancies in the public opinion to better investigate long-term trends. Moldova was not included in the 2008/09 competitiveness report, which limits the analysis for this country. The selection of the survey indicators is made to assess the impact on the private sector and how it is perceived within the framework of business competitiveness. For a detailed explanation of the methodology see Table 3 in the Appendix. The value of each pillar was calculated using simple averages of the underlying indicators, and the final index value was calculated as simple average of the four pillars. In order to show the relative performance, all values were expressed as compared to the average of the “old” EU members (EU15=100). For comparison, the values were also calculated for the “new” EU members (EU10). In order to calculate how much the six countries lag behind the EU15 countries we have calculated simple averages of the relative values of the four pillars and the final index. Also, to assess if the six countries converge or diverge to each other, we have calculated the variation coefficient for these countries.

**Table 9: The pillars, survey indicators and questions used to create the survey based Institutional Quality of Public Sector Index**

EU15=100			INDEX	Education	R&D	Innovation	ICT
2010	EU15		100.0	100.0	100.0	100.0	100.0
2010	EU10		84.4	89.2	80.5	75.1	92.5
2010	SEE	Bulgaria	70.8	73.9	65.9	62.3	80.9
2010	SEE	Croatia	76.2	84.1	72.6	69.4	79.0
2010	SEE	Macedonia	70.5	78.1	62.0	57.9	83.9
2010	SEE	Romania	69.2	80.0	61.5	63.1	72.8
2010	SEE	Ukraine	73.2	82.1	67.9	66.8	76.7
2010	SEE	Moldova	65.1	72.4	55.8	57.5	74.8



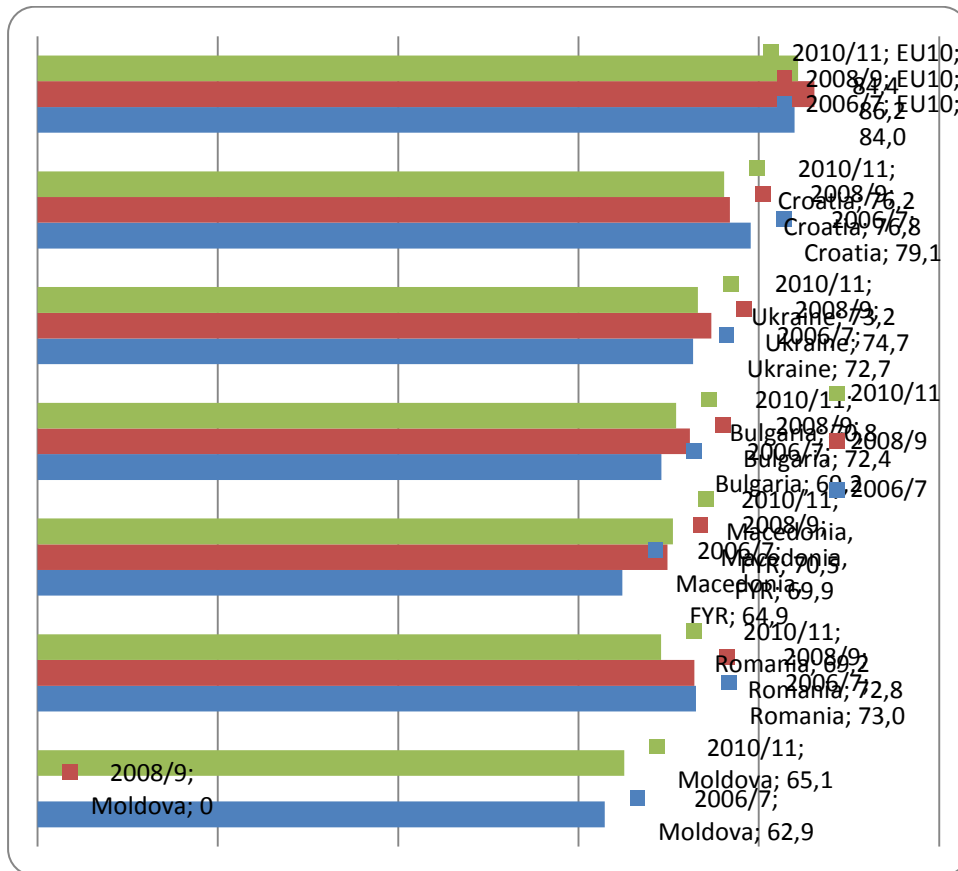
		<i>SEE Average</i>	70.8	78.4	64.3	62.8	78.0
		<i>SEE C.V.</i>	5.3	5.8	9.0	7.5	5.3
2008	EU15		100.0	100.0	100.0	100.0	100.0
2008	EU10		86.2	93.2	82.5	77.3	92.0
2008	SEE	Bulgaria	72.4	77.9	67.8	61.4	82.5
2008	SEE	Croatia	76.8	82.7	73.8	70.9	80.1
2008	SEE	Macedonia	69.9	81.9	62.3	56.8	79.1
2008	SEE	Romania	72.8	83.0	69.4	65.8	73.8
2008	SEE	Ukraine	74.7	83.9	71.4	66.9	77.3
2008		<i>SEE Average</i>	73.3	81.9	69.0	64.3	78.6
2008		<i>SEE C.V.</i>	3.6	2.9	6.3	8.4	4.1
2006	EU15		100.0	100.0	100.0	100.0	100.0
2006	EU10		84.0	92.2	79.8	75.6	88.9
2006	SEE	Bulgaria	69.2	78.1	65.8	58.4	75.3
2006	SEE	Croatia	79.1	85.7	77.5	75.1	78.4
2006	SEE	Macedonia	64.9	79.5	61.4	55.2	64.3
2006	SEE	Romania	73.0	86.5	71.6	61.8	73.2
2006	SEE	Ukraine	72.7	82.4	70.9	67.3	70.8
2006	SEE	Moldova	62.9	73.4	59.7	56.1	63.2
2006		<i>SEE Average</i>	70.3	80.9	67.8	62.3	70.9
2006		<i>SEE C.V.</i>	8.4	6.1	10.0	12.3	8.6

*Source: Authors calculations based on WEF, GCI, survey data*

If we compare the values of the variation coefficient, the six countries diverged among themselves in the institutional quality of the public sector in 2010/11 as compared to 2006/07. The difference is largest for innovation and rather small for education.

The countries show some improvement in building an institutional framework for improvement of competitiveness of private sector. The survey data also reveal the good position of Ukraine, which was ahead of Romania in Bulgaria and slightly improving. Moldova has also improved, although its overall level is very low.

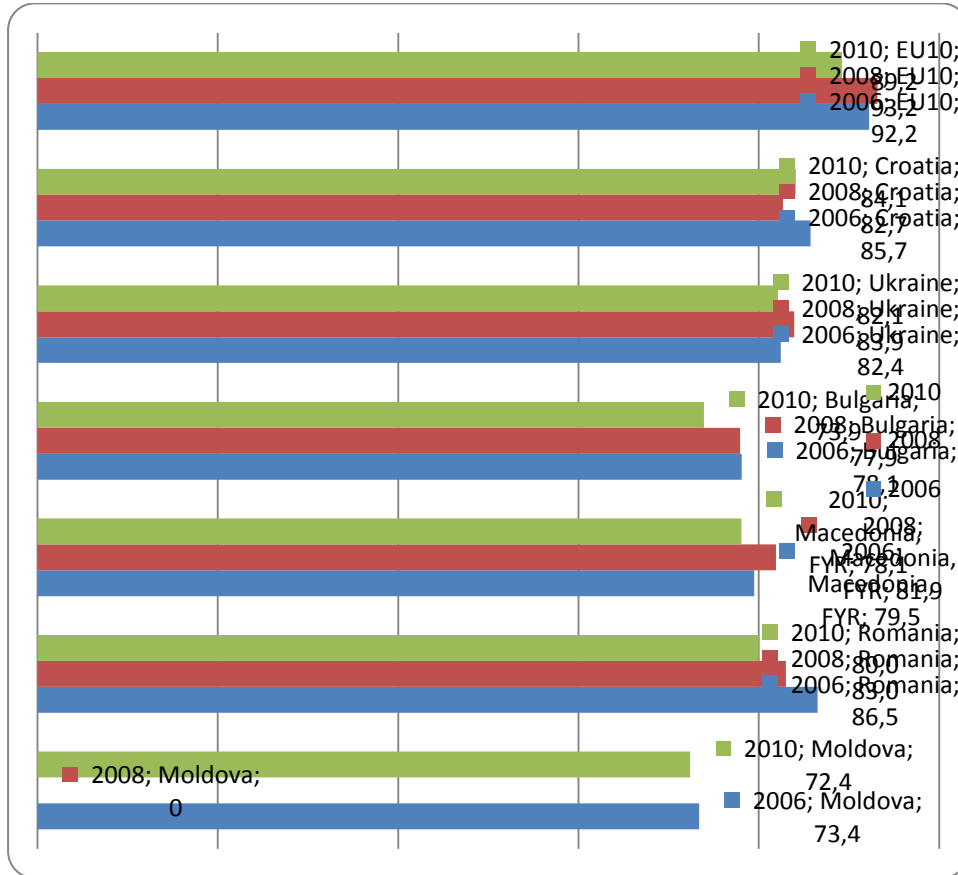
**Figure 6: Values of the Survey Based Institutional Quality of Public Sector Index, EU15=100**



Source: Authors calculations based on WEF, GCI, survey data

For education, there is no clear improvement in any country, and Romania has even deteriorated.

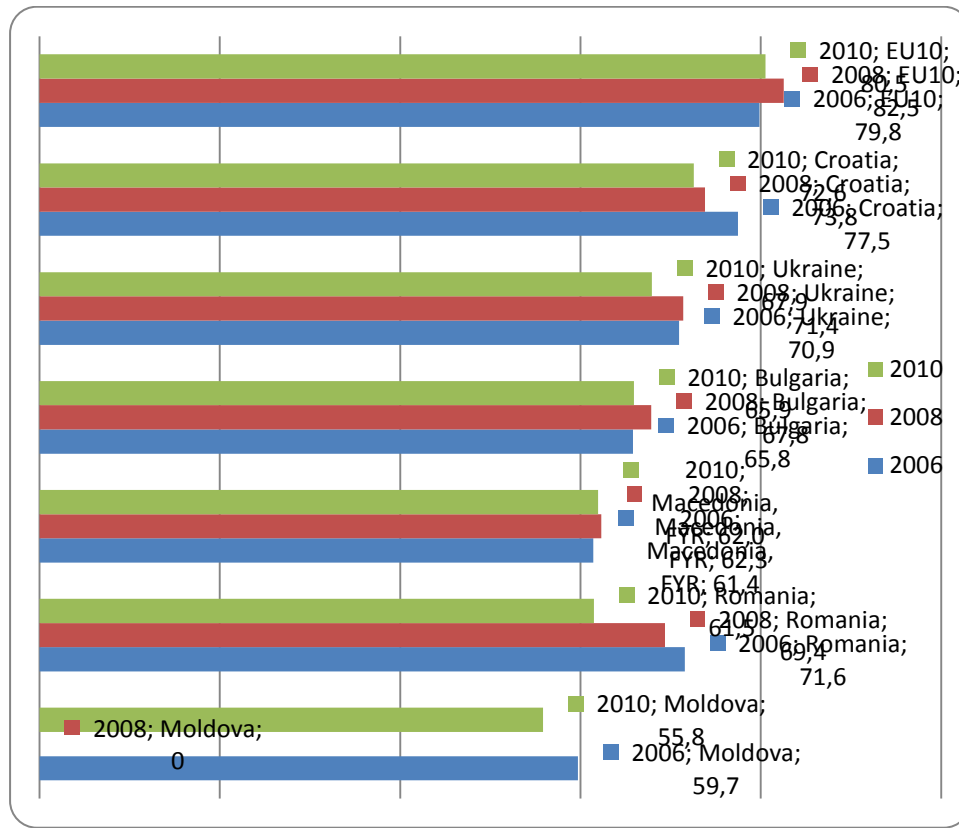
**Figure 7: Values of the Education Pillar of the Survey Based Institutional Quality of Public Sector Index, EU15=100**



Source: Authors calculations based on WEF, GCI, survey data

For R&D there are also no signs of improvement, while the levels of the pillars are strikingly low.

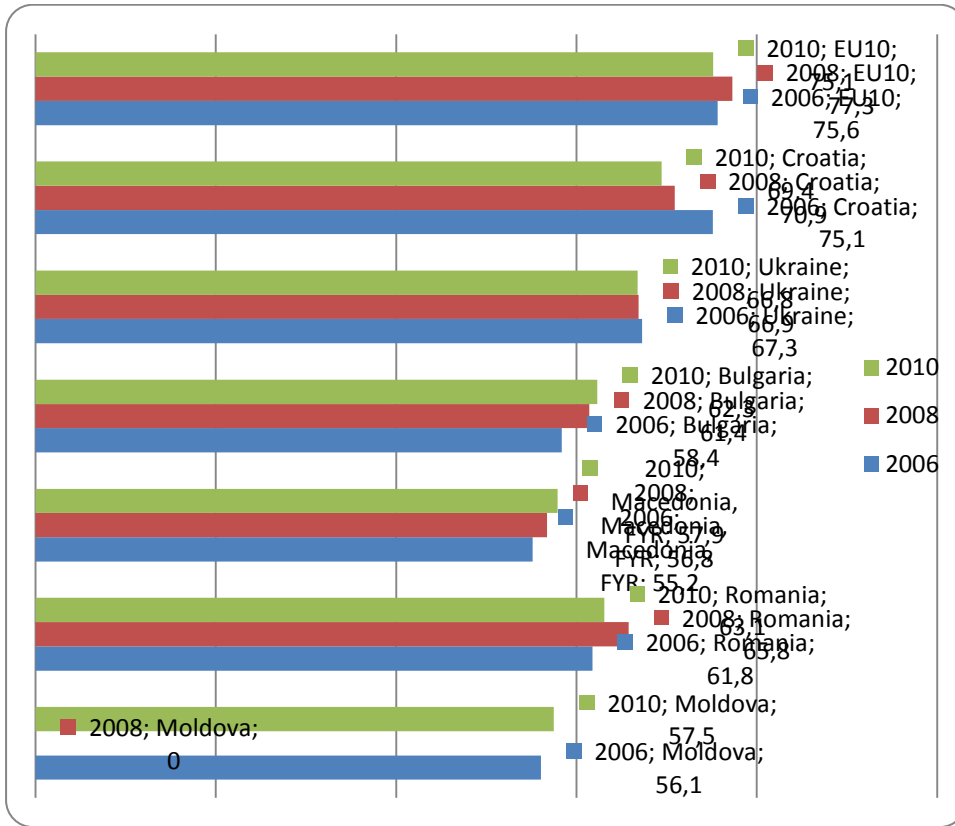
**Figure 8: Values of the R&D Pillar of the Survey Based Institutional Quality of Public Sector Index, EU15=100**



Source: Authors calculations based on WEF, GCI, survey data

For innovation Moldova showed some improvement, however still at a rather low level. Ukraine did not change significantly in that area, while Bulgaria and Romania have improved, being able to use the potentials of the larger EU market and funding incentives directed towards innovation activities development.

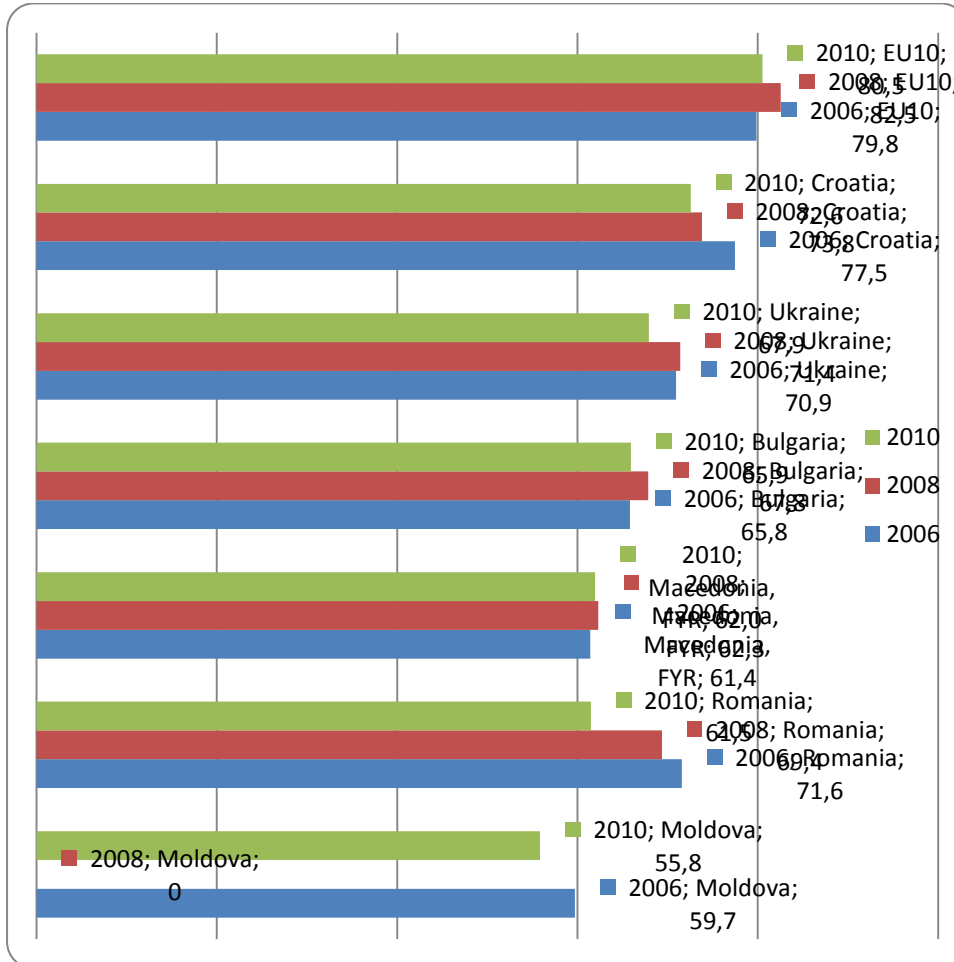
**Figure 9: Values of the Innovation Pillar of the Survey Based Institutional Quality of Public Sector Index, EU15=100**



Source: Authors calculations based on WEF, GCI, survey data

Values for R&D activities were very low and deteriorating in most of the countries. In Ukraine and Moldova, decrease is rather significant.

**Figure 10: Values of the R&D Pillar of the Survey Based Institutional Quality of Public Sector Index, EU15=100**



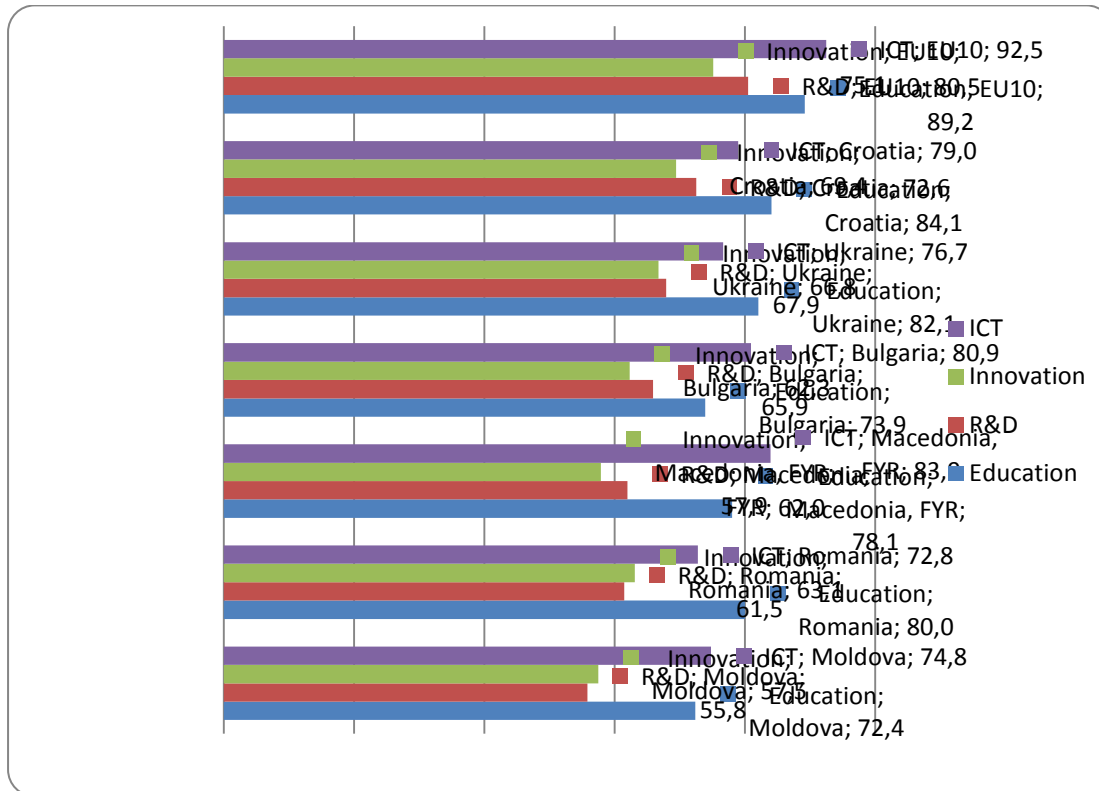
Source: Authors calculations based on WEF, GCI, survey data

In conclusion, the final Figure 11 presents the “big picture“ on how much countries lag behind the EU average in the four pillars. In general, like the EU10 countries, the six countries have rather well developed education and ICT, while they lag significantly behind in innovation and R&D.

The survey responses for innovation and R&D, as compared to the EU15 average, are 66% for Ukraine and 55% for Moldova, which is very low in terms of the survey methodology used. However, the comparison with the EU10 countries shows that these countries still have to improve their performance also within the issues of ICT and

education, which is at the level of 90% of the EU15 average for the NMS, while being at 80% for Ukraine and below 75% for Moldova.

**Figure 11: Values of 4 Pillars of Survey-Based Institutional Quality of Public Sector Index 2010/11 EU15=100**



Source: Authors calculations based on WEF, GCI, survey data

### Business environment quality in a narrower sense

Investor decisions are often guided by the quality of the business environment, especially when it comes to enforcing contracts and protecting investors, registering the property and transfer of property titles, issuance of building permits, issuance of business licences, paying taxes and the availability of credits. The comparative analyses for the selected countries are based on the *World Bank Doing Business Reports* dataset, 2004-2011.

We observe a general trend of improvement of the business environment indicators in the new EU members in the SEE (Bulgaria and Romania), but also especially in the countries in the accession (Croatia) and candidate countries (Macedonia), while the slower progress

could be observed in Moldova and Ukraine where the pressure of Europeanization of business environment was not so strong.

In the ENP countries Ukraine and Moldova, the situation needs further improvements especially when it comes to time to enforce contracts, ease of starting business and issuing building permits and licences, especially in Ukraine. The pressure of Europeanization of business institutions was weak and in phases of acute political instability even doubtful. That was reinforced by an absence of the clear accession prospects in the form of an association agreement with the EU which would push such processes forward and create stronger incentives for their realization. Such circumstances made the institutional convergence of ENP countries both more ineffective and impractical (Monastiriotis and Borrell, 2012). The impact of the participation in the EU neighbourhood programs (and its action plans and association agendas<sup>21</sup>) on the evolution of institutions in ENC countries was in this respect much weaker (Wesselink and Boschma, 2012).

Nevertheless, one could also notice progress in several aspects of creating an institutional framework for doing business in Moldova where the time to register a property was only 5 days in 2011 as compared to 48 days in 2008. Also, the time to start a new business has fallen to just 10 days, as compared to 42 days in 2004. Regrettably, there was no visible progress in reducing time spent for issuing building permits, a highly sensitive area for foreign direct investment (see Table 12).

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<sup>21</sup> Such as for instance 2009 EU-Ukraine Association Agenda, or 2009 Eastern Partnership Project initiated by the EU with Moldova, Ukraine, Georgia, Armenia, Azerbaijan and Belarus. Although introducing positive conditionality is a step forward it is still rather weak driving force of change in these countries. Recent signing of the Association Agreement between the EU and Ukraine in December 2011 might bring additional impetus for a faster institutional change.



**Table 12. Selected World Bank Doing Business indicators for business environment quality in the EU neighbouring countries (ENC), 2004-2011**

		<b>Time to enforce contracts (days)</b>	<b>Registering the property (days)</b>	<b>Issuance of building permits (days)</b>	<b>Time to start business (days)</b>	<b>Time to finish bankruptcy procedure (years)</b>
<b>UKRAINE</b>	2004	354	93 (2008)	429 (2008)	27	2.9
	2011	345	117	374	27	2.9
<b>MOLDOVA</b>	2004	210	48 (2008)	292 (2008)	42	2.8
	2011	365	5	292	10	2.8

*Source: Data base of World Bank Doing Business 2004-2011*

Furthermore, in both Ukraine and Moldova, an encouraging sign of improvement in the quality of institutions for doing business is the reduction in the time to complete bankruptcy procedures which is even shorter than in the EU members Bulgaria and Romania, and in the soon-to-be EU member Croatia. Short bankruptcy procedures facilitate the market exit of firms failing firms, making more room for the new start-ups. As for general ease of doing business in 2011, Moldova is ranked at 90<sup>th</sup> place, which is only six places after Croatia (84<sup>th</sup>), while Ukraine is at 145<sup>th</sup> place out of 174 countries.

The conclusion of the negotiations for the Deep and Comprehensive Free Trade Area (DCFTA) as well as Association Agreement between the EU and Ukraine at the end of 2011 might stimulate faster convergence of the quality of the business environment of Ukraine in the years to come. Moldova is also following the same path as it has launched negotiations for DCFTA with the EU at the end of 2011 as a step towards signing future Association Agreement. As in Ukraine, it is expected that this will provide better framework for increasing institutional complementarity with the EU.

Another benchmark indicator of the extent and intensity of cross-border exchange with neighbouring regions is the ease of trading across borders, measured by the time, costs and documents needed for export and import. According to Doing Business 2011 Report,

both Moldova and Ukraine are still ranked rather low at 141<sup>st</sup> and 139<sup>th</sup> place respectively. This indicates another institutional area that needs substantial improvements.

**Table 13. Selected World Bank Doing Business indicators for business environment quality in accession, candidate and EU members from SEE, 2004-2011**

		<b>Time to enforce contracts (days)</b>	<b>Registering the property (days)</b>	<b>Issuance of building permits (days)</b>	<b>Time to start business (days)</b>	<b>Time to finish bankruptcy procedure (years)</b>
<b>CROATIA</b>	2004	330	174 (2008)	255 (2008)*	29	3.1
	2011	47	104	315	7	3.1
<b>BULGARIA</b>	2004	410	19	131 (2008)*	32	3.8
	2011	564	15	139	18	3.3
<b>ROMANIA</b>	2004	225	150 (2008)	243 (2008)*	29	3.2
	2011	512	48	228	14	3.3
<b>MACEDONIA</b>	2004	509	98 (2008)	192 (2008)*	48	3.6
	2011	370	58	146	3	2.9

*Source: Database of World Bank Doing Business 2004-2011; \* the indicator on issuance of building permits is comparable across the countries in DB dataset since 2008.*

The selected indicators show the quality of the key institutions that shape the business environment in ACC and NMS countries. According to the Doing Business Reports, Croatia has demonstrated continuous progress in improving the level of institutional quality since 2004 and now mostly outperforms Bulgaria and Romania, the SEE countries that already are full members of the EU. This refers in particular to having shorter time for enforcing contracts, the time needed to start a new business and the time needed for exit of the firm from the market by completing the bankruptcy procedure. The weakest points of the business environment in Croatia are the poor cadastral registers and the slow issue of building permits and other business licences, which still takes much longer than in Bulgaria and Romania. Macedonia has also made substantial progress in these areas in recent years. It should also be noted that according to Transparency International Reports

on the perception of corruption and UNODC 2011 Report, these parts of public administration services remain highly exposed to bribery and corruption in Croatia.

A detailed analysis of the Doing Business dataset 2004-2011 for the selected indicators shows that nominal convergence towards formal institutional rules would not necessarily mean that enforcement and respect of these rules on the ground would be smooth and imbedded or guaranteed. The Croatian, Bulgarian and Romanian cases demonstrate where the gap between the adopted and enforced rules and norms is high and how this still hinders business development and why investors still feel inefficiently protected. For instance, according to 2012 Doing Business Report, Croatia is at 133<sup>rd</sup> place with regard to the protection of investors and at 143<sup>rd</sup> place with regard the ease of obtaining building permits. This suggests that there is a persisting inefficiency in business administration and in the judiciary – an example of the slow pace of adaptation of informal institutions.

On the broader regional level, the SEE countries have on average advanced considerably in the last eight years. Already in 2009, the time to enforce contracts in these countries converged to the EU-15 level and even better than the average time in the new EU members from CEE (EU-8 countries). However, the cost of enforcing contracts is still substantially higher. In spite of advances, the legal system in the SEE is still not efficient when it comes to bankruptcy procedures, with the recovery rate still below 30%. It is evident that “old” EU members are far ahead of both EU-8 and SEE countries according to the bankruptcy loss and time to finish procedure (Cuckovic and Jurin, 2009).

## **INSTITUTIONAL COMPLEMENTARITY**

This section focuses on the evolution of institutions and reforms in three groups of transition countries: the EU New Member States (NMS), the EU Candidate and Potential Candidate countries (ACC) states in the Western Balkans and the EU Eastern Neighbourhood Policy (ENP) transition countries. The section presents an econometric analysis of the relationship between growth and reform in the three country groupings. The analysis is based on panel data methods use the indicators of reform complementarity. This section investigates the relative importance of three sets of factors - initial conditions, macroeconomic stabilization and structural reforms - as determinants of growth in transition economies. We test a specification in which both levels and variations of the

average and complementary reform indicators are included among regressors, as in the following model:

$$\Delta\text{GDP} = g(\text{initial conditions, macrostabilisation, RL, RC, } \Delta\text{RL, } \Delta\text{RC}) \quad (1)$$

The measure of initial conditions is an index, based on a principal component used in a study by Falcetti et al. (2002). As our measure for stabilization, we use the rate of inflation expressed as the growth of the consumer price index. Structural measures are an average of nine EBRD sectoral transition indicators (RL) and an index of reform complementarity (RC). Following De Macedo and Martins (2008) we introduce the concept of reform complementarity as:

$$\text{RC} = \frac{1}{\sum_i \left( \frac{R_i}{\text{RL} \cdot N} \right)^2} \quad (2)$$

where RL is the simple average reform level, and N is the number of reform dimensions. In this case the range of variation of RC is [0.66, 9].

The unbalanced panel data covers 28 countries over 22 years (1989-2010). In order to test the robustness of the results we used different estimators: one and two-way fixed effects, GLS random-effects and a dynamic GMM estimator. The dynamic Arellano-Bover methodology was used to estimate the model in order to correct for possible endogeneity bias between growth, inflation and level of reforms (see Arellano and Bover, 1998). We estimated a sample of 28 transition economies listed in the EBRD database organised into the following regional groupings of interest.

**Table 14: The regional groupings**

Regional grouping	Number of countries
TC - Transition countries	28
SEE (South East Europe including the Western Balkans, Bulgaria, Romania and Moldova)	9
NMS –New EU Member States (before 2007)	8
ENC - EU Neighbourhood Countries (NIS)	11

The results of the econometric analysis are presented in the following tables.

**Table 15: Growth, reform level and complementarity: An empirical test on all 28 countries**

Dependent variable: growth rate of real GDP	All Transition countries					
	One-way fixed-effects	One-way fixed-effects	Random effects	Random effects	Two-way fixed effects	GMM
	all TC (N=28)	all TC (N=28)	all TC (N=28)	all TC (N=28)	all TC (N=28)	all TC (N=28)
	(1)	(2)	(3)	(4)	(5)	(6)
Initial conditions	/	/	<b>0.4612308</b>	<b>0.520712</b>	/	/
			0.2311734**	0.2102787**		
CPI growth	<b>-0.002225</b>	<b>-0.002145</b>	<b>-0.0025217</b>	<b>-0.0025446</b>	<b>-0.0016445</b>	<b>-0.0050772</b>
	0.000441***	0.000422***	0.0004425***	0.0004309***	0.0004238***	0.0005347***
Reform level (RL)	<b>5.577858</b>	<b>6.587967</b>	<b>4.15991</b>	<b>4.624001</b>	<b>-0.8387236</b>	<b>2.403909</b>
	0.63825***	0.626712***	0.589706***	0.5776242***	1.4374770	0.4780946***
Reform complementarity (RC)	<b>-2.770031</b>	<b>-2.264253</b>	<b>-3.0879780</b>	<b>-2.858275</b>	<b>-2.161978</b>	<b>-5.037184</b>
	0.824713***	0.791989***	0.7807039***	0.7546775***	0.8600808**	0.7815221***
Change of reform level ( $\Delta$ RL)	<b>-12.60397</b>	<b>-13.361590</b>	<b>-15.09700</b>	<b>-16.64153</b>	<b>-5.602389</b>	<b>-26.551430</b>
	2.283126***	2.186291***	2.224437***	2.169453***	2.278607**	2.373653***
Change of reform complementarity ( $\Delta$ RC)	<b>4.487859</b>	<b>3.795028</b>	<b>5.102146</b>	<b>4.72629</b>	<b>3.359892</b>	<b>5.36948</b>
	0.990323***	0.952179***	0.9952318***	0.9724157***	0.9906842***	0.8138272***
V <sub>2009, 2010</sub>	/	<b>-7.779528</b>	/	<b>-6.73432</b>	/	/
		1.092216***		1.125257***		
No. Observations	567	567	567	567	567	567
R <sup>2</sup> (within)	0.3214	0.3803	0.3142	0.3671	0.4832	
F-test	50.58	54.53			19.23	
(Prob)	(0.0000)	(0.0000)			(0.0000)	
Wald test	4.25	5.00			8.05	
(Prob)	(0.0000)	(0.0000)			(0.0000)	510.51
Sargan test of overid. restrictions:						(0.0000)
(Prob)						

**Notes:** Country fixed-effects are not reported. GMM indicates the Arellano-Bond dynamic panel-data estimation, one-step difference GMM results, using the complementarity indicator and its difference as an instrument. For this we used the xtabond2 command in STATA developed by Roodman (2005). \*\*\*, \*\* and \* indicate significance at the 1, 5 and 10 percent level, respectively. V<sub>2009, 2010</sub> is a dummy variable that takes value 1 in years 2009 and 2010 and value 0 for previous years.

The first two columns in Table 15 shows the results of the fixed effect estimator with country dummies, which excluded the time invariant variable related to initial conditions. We estimated two different specification of these models with and without a dummy variable related to the financial crisis (column (1) and (2)). The results of a Wald test confirmed that the country fixed dummies are needed. Then we estimated two-fixed effects models by including time fixed effects (column model (5)). We find that we also need the time fixed dummies. Initial conditions were added in the context of a GLS random-effects and we estimated two models that include initial conditions (column (3) and (4)). Finally, in order to consider the critique of the endogeneity of policy indicators in the growth model we estimated a dynamic GMM model (column (6)).

**Table 16: South East Europe**

Dependent variable: growth rate of real GDP	South East Europe					
	One-way fixed-effects	One-way fixed-effects	Random effects	Random effects	Two-way fixed effects	GMM
	SEE (N=9)	SEE (N=9)	SEE (N=9)	SEE (N=9)	SEE (N=9)	SEE (N=9)
	(1)	(2)	(3)	(4)	(5)	(6)
Initial conditions	/	/	-0.41264	-0.464821	/	/
			1.617364	0.9483236		
CPI growth	-0.010092	-0.009099	-0.0109552	-0.012044	-0.006143	-0.0157793
	0.003806***	0.0037009**	0.0037424***	0.0037016***	0.0036214*	0.002838***
Reform level (RL)	4.241475	5.537161	3.72584	3.702448	-5.412297	1.739075
	1.660667**	1.656109***	1.622736**	1.616469**	3.388143	1.1371070
Reform complementarity (RC)	-3.521883	-3.005629	-3.39077	-2.720395	-3.188246	-3.003614
	1.873199*	1.821809*	1.847338*	1.837835	1.963911*	1.331097**
Change of reform level ( $\Delta$ RL)	1.433214	-0.603094	1.44148	-0.390315	5.290399	2.92501
	5.816142	5.664750	5.75647	5.806766	5.413319	4.316.612
Change of reform complementarity ( $\Delta$ RC)	0.135608	-0.804837	0.21664	-0.371319	-6.415345	0.5133527
	2.114653	2.069572	2.09808	2.122743	2.254024***	1.565702
V <sub>2009, 2010</sub>	/	-7.749925	/	-6.635987	/	/
		2.329993***		2.385235***		
No. Observations	170	170	170	170	170	170
R <sup>2</sup> (within)	0.0921	0.1526	0.0913	0.1427	0.4288	
F-test	3.17	4.65			4.08	
(Prob)	(0.0094)	(0.0002)			(0.0000)	
Wald test	2.79	7.56			4.01	
(Prob)	(0.006)	(0.0000)			(0.0000)	
Sargan test of overid. restrictions:						315.8
(Prob)						(0.0000)

**Notes:** Country fixed-effects are not reported. GMM indicates the Arellano-Bond dynamic panel-data estimation, one-step difference GMM results, using the complementarity indicator and its difference as an instrument. For this we used the xtabond2 command in STATA developed by Roodman (2005). \*\*\*, \*\* and \* indicate significance at the 1,5 and 10 percent level, respectively. V<sub>2009, 2010</sub> is a dummy variable that takes value 1 in years 2009 and 2010 and value 0 for previous years. The countries included are Albania, Bulgaria, Romania, Croatia, Serbia, Bosnia and Herzegovina, FYR Macedonia, Montenegro and Moldova

The results confirm that countries with a higher reform level (RL) tend to have higher growth, but that a change in the reform level ( $\Delta$ RL) displays a negative sign. The level of complementarity (RC) displays a negative sign while its variations ( $\Delta$ RC) has the expected positive sign. To sum up, the level of reforms and the changes in their complementarity have a positive effect on growth. We also find that initial conditions and macrostabilisation are related to growth in the sample of transition economies.

Table 16 presents the results of the analysis for the countries of South East Europe. Again we find that both time and country fixed effects are needed (Wald test). The results for SEE countries are somewhat different and not that robust. First, our findings do not confirm that changes in reform level and complementarity are related to growth. The same

stands for initial conditions. However, growth in this group of transition countries is related to the level and complementarity of reforms.

**Table 17: New EU Members**

Dependent variable: growth rate of real GDP	new-EU members (without Bulgaria and Romania)					
	One-way fixed-effects	One-way fixed-effects	Random effects	Random effects	Two-way fixed effects	GMM
	NEUM(N=8)	NEUM(N=8)	NEUM(N=8)	NEUM(N=8)	NEUM(N=8)	NEUM(N=8)
	(1)	(2)	(3)	(4)	(5)	(6)
Initial conditions	/	/	<b>0.2003882</b>	<b>0.2206395</b>	/	/
			0.3505334	0.3499065		
CPI growth	<b>-0.018797</b>	<b>-0.0169230</b>	<b>-0.018811</b>	<b>-0.016969</b>	<b>-0.016856</b>	<b>-0.0178245</b>
	0.003154***	0.002595***	0.0031064***	0.0025612***	0.0027203***	0.0029503***
Reform level (RL)	<b>1.462614</b>	<b>2.3775080</b>	<b>1.402959</b>	<b>2.316927</b>	<b>4.131637</b>	<b>1.120286</b>
	0.880804*	0.729552***	0.8649674*	0.7186501***	2.183171*	0.6975934*
Reform complementarity (RC)	<b>2.137695</b>	<b>2.9570060</b>	<b>2.019104</b>	<b>2.800524</b>	<b>2.312164</b>	<b>2.353581</b>
	1.594595	1.310499**	1.542718	1.27768**	1.400409*	1.213091**
Change of reform level ( $\Delta$ RL)	<b>-6.808474</b>	<b>-7.6503850</b>	<b>-7.101587</b>	<b>-7.974053</b>	<b>-6.695022</b>	<b>-7.253929</b>
	2.635622**	2.162665***	2.547755***	2.108775***	2.458167***	2.53823***
Change of reform complementarity ( $\Delta$ RC)	<b>2.435112</b>	<b>1.2666830</b>	<b>2.519285</b>	<b>1.359219</b>	<b>1.058001</b>	<b>2.515158</b>
	1.392231*	1.149043	1.366215**	1.131282	1.318154	1.05424**
$V_{2009, 2010}$	/	<b>-9.831611</b>	/	<b>-9.786576</b>	<b>-10.409460</b>	
		1.122872***		1.109252***	5.741022*	
No. Observations	168	168	168	168	168	168
R <sup>2</sup> (within)	0.5316	0.6873	0.5316	0.6872	0.7963	
F-test	35.19	56.41			21.11	
(Prob)	(0.0000)	(0.0000)			(0.0000)	
Wald test	1.28	1.98			3.80	
(Prob)	(0.2646)	(0.0613)			(0.0000)	
Sargan test of overid. restrictions:						242.32
(Prob)						(0.0000)

**Notes:** Country fixed-effects are not reported. GMM indicates the Arellano-Bond dynamic panel-data estimation, one-step difference GMM results, using the complementarity indicator and its difference as an instrument. For this we used the xtabond2 command in STATA developed by Roodman (2005). \*\*\*, \*\* and \* indicate significance at the 1,5 and 10 percent level, respectively.  $V_{2009, 2010}$  is a dummy variable that takes value 1 in years 2009 and 2010 and value 0 for previous years. The countries included are those that joined the EU in 2004: Czech Republic, Poland, Slovakia, Slovenia, Hungary, Estonia, Latvia and Lithuania.

Table 17 presents the results for the New Member States that joined the EU in 2004. The Wald test indicates that we do not need country dummies, but independently we find that we do need time fixed effects. In this sub-sample of transition countries the results show that initial conditions are an insignificant variable in the growth equation. However, the results confirm that countries with a higher reform level (RL) and a change in reform complementarity ( $\Delta$ RC) tend to have higher GDP growth. The levels of complementarity (RC) and variations in reform level ( $\Delta$ RL) have the expected negative sign.

**Table 18: EU Eastern Neighbourhood**

Dependent variable: growth rate of real GDP	NHC (NIS without Moldova)					
	One-way fixed-effects	One-way fixed-effects	Random effects	Random effects	Two-way fixed effects	GMM
	NHC(N=11)	NHC(N=11)	NHC(N=11)	NHC(N=11)		NHC(N=11)
Initial conditions	/	/	<b>2.12176</b> 0.9305255**	<b>2.4661990</b> 1.038948**	/	/
CPI growth	<b>-0.001071</b> 0.000466**	<b>-0.000973</b> 0.000451**	<b>-0.00151</b> 0.0004703***	<b>-0.001367</b> 0.0004573***	<b>0.000555</b> 0.0004274	<b>-0.0027616</b> 0.0004259***
Reform level (RL)	<b>8.832169</b> 1.020061***	<b>9.894883</b> 1.022932***	<b>6.45122</b> 0.9247986***	<b>7.732958</b> 0.9508133***	<b>4.9280810</b> 1.964982***	<b>3.364993</b> 0.6205642***
Reform complementarity (RC)	<b>-0.823166</b> 1.239134	<b>-0.293759</b> 1.206278	<b>-1.647583</b> 1.210045	<b>-1.1249500</b> 1.1914030	<b>-3.8371810</b> 1.583379**	<b>-4.043218</b> 0.8643998***
Change of reform level ( $\Delta$ RL)	<b>-17.2073</b> 3.573421***	<b>-18.073330</b> 3.464051***	<b>-20.719110</b> 3.622583***	<b>-21.0009000</b> 3.529924***	<b>-0.922836</b> 3.92527	<b>-31.617840</b> 3.040509***
Change of reform complementarity ( $\Delta$ RC)	<b>7.007993</b> 1.390679***	<b>6.475384</b> 1.352159***	<b>8.090889</b> 1.42427***	<b>7.4796610</b> 1.384198***	<b>8.09419</b> 1.719129***	<b>9.427564</b> 1.087927***
V <sub>2009, 2010</sub>	/	<b>-6.531186</b> 1.654891***	/	<b>-5.7158710</b> 1.711093***	<b>-7.67604</b> 2.465137***	/
No. Observations	229	229	229	229	229	229
R <sup>2</sup> (within)	0.5493	0.5802	0.5386	0.5723	0.7406	
F-test (Prob)	51.93 (0.0000)	48.83 (0.0000)			22.05 (0.0000)	
Wald test (Prob)	5.80 (0.0000)	6.11 (0.0000)			6.28 (0.0000)	
Sargan test of overid. restrictions: (Prob)						210.6 (0.0000)

**Notes:** Country fixed-effects are not reported. GMM indicates the Arellano-Bond dynamic panel-data estimation, one-step difference GMM results, using the complementarity indicator and its difference as an instrument. For this we used the xtabond2 command in STATA developed by Roodman (2005). \*\*\*, \*\* and \* indicate significance at the 1,5 and 10 percent level, respectively. V<sub>2009, 2010</sub> is a dummy variable that takes value 1 in years 2009 and 2010 and value 0 for previous years. The countries included are the New Independent States (NIS) of the former USSR without Moldova and Russia

Table 18 presents the results for the group of countries in the EU Eastern Neighbourhood region. Again we find that we need both, time and country fixed effects. In this subsample of transition countries we find that initial conditions are a significant variable in growth relation.

The results confirm that countries with a higher reform level (RL) and a change in reform complementarity ( $\Delta$ RC) tend to have higher GDP growth. The levels of complementarity (RC) and the variations in reform level ( $\Delta$ RL) have the expected negative sign. For the Eastern neighbourhood countries, variations in reform level ( $\Delta$ RL) and reform complementarity ( $\Delta$ RC) have a greater effect on growth than in other regions (comparing absolute values of the estimated coefficients for different groups of countries).

In summary we find different relationships between growth, level of reform and reform complementarities among our different groups of countries. The results are summarised in the following table.



**Table 19: Summary results**

	RL	RC	$\Delta$ RL	$\Delta$ RC
ALL	+ ***	- ***	- ***	+ ***
SEE	0	- *	0	0
NMS	+ ***	+ **	- ***	+ **
ENC	+ ***	- ***	- ***	+ ***
De Campos and Martins	+	-	-	+

## CONCLUSIONS

The empirical analysis of quality of institutions in two ENP countries, Ukraine and Moldova, has identified some key conclusions. First, the prospect of accession to the EU, the positive accession conditionality and the accompanying process of Europeanisation of economic policies and governance structures acts as a powerful drive of institutional convergence, especially in the accession and candidate countries (ACC), i.e. prior to accession. The analyses showed that ENP countries have a much weaker institutional convergence path than ACC countries, and a lower level of governance capacity than the average in the EU. This is mainly a result of their incomplete process of democratic consolidation, but it may also be due to an absence of a clear accession horizon for EU membership, and the associated weak and inconsistent European Neighbourhood programs and policies which place ENP countries in the “realm between accession, integration and external relations policies” (Monastiriotis and Borrell, 2012).

Secondly, political stability, governmental accountability and responsibility chains, freedom of media and control of corruption are important for the configuration and operation of key economic institutions and consequently for the success of economic policies. Building institutions that support the implementation of these norms are of crucial importance for the ACC countries, as well as for those ENP countries with aspirations to join the EU. The compatibility of institutions is a standard request of EU

accession conditionality, and is also a precondition of good relations with neighbouring countries. However, nominal adoption or transposition of current EU norms and rules does not guarantee successful institutional performance, as the continuing problems in Bulgaria and Romania demonstrate.

Thirdly, comparative studies of the quality of institutions over a long period (World Bank, Transparency International, Freedom House) have shown that general social welfare and higher economic growth stem mostly from better regulatory infrastructure, greater civil liberties, more efficient government administration and a professional civil service. Basically, consolidated democracies and free societies tend to have more efficient public governance institutions and enable higher social wellbeing and economic development. Although Ukraine and Moldova have shown considerable progress over the last eight years, they still have difficulties in complying with core democratic standards (rule of law, political and economic freedoms, respect for minorities, free media) and are still considered as only partly free societies with respect to political and civil liberties (FRIDE, 2010). The convergence target is not yet reached and the final outcome is far from certain.

Fourthly, providing more consistent association policies towards ENP countries and a commitment to an EU perspective might incentivise reforms for further democratization and more effective market institutions (Nieman and de Wekker, 2010). This would give both Ukraine and Moldova better perspective managing their accession aspirations. The case of Croatia is a good example, as the pace of institutional and economic reforms accelerated following the signature of the SAA in 2001, and even more so after membership negotiation started in 2005. There is a need for “joint ownership” of reforms because domestic pro-reform forces often provide a rather slow, fragmented and piecemeal reform process. A more active role of the EU is therefore also needed, especially given its proclaimed role as a normative power (Manners, 2002). Given that good governance and democratisation are among the top priorities of the European Neighbourhood Partnership Instruments for Ukraine and Moldova, the EU role has so far failed to promote transformative processes and to encourage the evolution of institutions. The EU has therefore not yet played an important role as a “transformative power”,

shaping faster institutional convergence<sup>22</sup>. Under such circumstances, there is a danger that if they are indefinitely delayed the reform processes will either stagnate or “run out of steam”. If the EU does not take a more decisive role in the process, it could even go in the opposite direction (Altmann et al., 2010). In sum, the process of democratic consolidation is incomplete due to absence of clear European perspective, the convergence towards the EU institutional framework is uncertain, and so association policies should be more consistent since relying solely on domestic pro-reform forces might be a slow, fragmented and piecemeal process.

As shown in section 4 above, in the ENP countries changes in the complementarity of institutional reform are strongly and positively related to growth and changes in reform level and reform complementarity have a greater effect on growth than in other regions. This suggests that serious attention should be given to the complementarity of the institutional reforms that take place under the process of transition. A corollary of the findings is that reforms that lead to a lower level of institutional complementarity are likely to have a significant negative impact on economic growth. The change in formal institutions brought about by reforms should therefore not be allowed to outpace the (slower) change in informal institutions. As we have seen in the analysis in section 3, in Ukraine and Moldova the likely consequence is an increase in corruption and in political instability. Reform programmes should therefore focus as much on informal institutions as on formal institutions in the design of policy to create stable democratic change and functioning market economies. For example, the development of endogenous institutions and incentives to eliminate the deeply rooted tolerance for corruption would contribute greatly to the elimination of the “governance gap” between these countries and the EU.

Finally, and on a more positive note, the findings of the research concerning the Institutional Quality of Public Services Index suggests that improved capacities for change are apparent based on the considerable improvements in the quality of education in Ukraine in the last two years, as well as in the capacity for innovation in Moldova.

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<sup>22</sup> Many analysts note that in the last decade the EU has more prioritised self-interests in the policies towards ENC countries (for instance energy security supply) than true democratic transformation of these countries (c.f. Altmann et al, 2010, Niemann and de Wekker, 2010).

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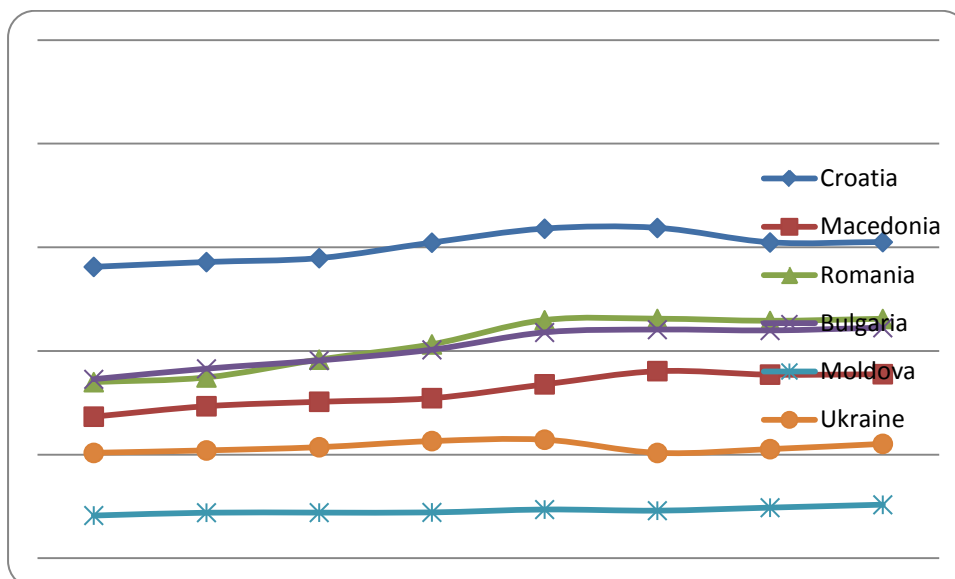
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## APPENDIX

Figure A1: GDP per capita (PPP) for analyzed countries (EU27=100)



Source: World Bank, World Development Indicators, 2004-2011

Table A1. Political stability; accountability and control of corruption, 2004-2010

Country	Year	Political Stability Rank	Voice and Accountability Rank	Control of Corruption Rank
<b>CROATIA</b>	2004	65.9	71.6	61.0
	2005	60.1	63.5	60.0
	2006	62.5	60.6	59.0
	2007	67.3	59.1	59.7
	2008	66.8	62.5	59.2
	2009	67.8	64.5	58.4
	2010	67.0	60.7	59.3
<b>MACEDONIA</b>	2004	19.2	45.2	38.0
	2005	15.9	47.6	39.5
	2006	25.0	52.9	43.9
	2007	29.8	54.3	46.6
	2008	33.2	52.9	51.9
	2009	35.1	52.6	56.0
	2010	29.2	52.6	56.5
<b>UKRAINE</b>	2004	27.9	27.9	20.0
	2005	38.5	39.4	29.8
	2006	43.8	47.1	27.8
	2007	48.6	48.1	24.3

	2008	45.2	49.0	22.8
	2009	31.8	48.8	15.8
	2010	42.0	44.1	17.2
<b>MOLDOVA</b>	2004	34.1	30.3	15.1
	2005	32.2	31.3	31.2
	2006	31.3	38.0	32.2
	2007	40.4	37.5	32.0
	2008	34.6	37.0	33.0
	2009	26.5	35.1	27.3
	2010	31.1	47.9	26.8

Source: WGI dataset 2011, The World Bank.

**Table A2. Political stability, accountability and control of corruption in Bulgaria and Romania, 2004-2010**

Country	Year	Political Stability Rank	Voice and Accountability Rank	Control of Corruption Rank
<b>BULGARIA</b>	2004	45.7	65.9	59.0
	2005	51.0	64.4	57.1
	2006	59.6	66.8	55.1
	2007	58.7	68.3	52.4
	2008	57.7	67.3	48.1
	2009	58.3	63.0	51.7
	2010	57.9	62.6	52.2
<b>ROMANIA</b>	2004	46.2	60.6	48.8
	2005	49.0	59.1	50.2
	2006	51.0	62.0	54.1
	2007	51.4	60.1	54.4
	2008	51.0	60.6	55.8
	2009	57.8	60.2	51.2
	2010	54.7	61.1	53.6

Source: WGI dataset 2011, The World Bank

**Table A3: The pillars, survey indicators and questions used to create the survey based Institutional Quality of Public Sector Index**

<b>Edu cati on</b>	Quality of the educational system	How well does the educational system in your country meet the needs of a competitive economy? (1 = Not well at all; 7 = Very well)
	Quality of math and science education	How would you assess the quality of math and science education in your country's schools? (1 = Poor; 7 = Excellent – among the best in the world)
	Quality of management schools	How would you assess the quality of management or business schools in your country? (1 = Poor; 7 = Excellent – among the best in the world)
<b>R&amp; D</b>	Quality of scientific research institutions	How would you assess the quality of scientific research institutions in your country? (1 = Very poor; 7 = The best in their field internationally)
	Local availability of specialized research	In your country, to what extent are high-quality, specialized training services available? (1 = Not at all available; 7 = Widely available)

	and training services	
	Production process sophistication	In your country, how sophisticated are production processes? (1 = Not at all – labour-intensive methods or previous generations of process technology prevail; 7 = Highly – the world's best and most efficient process technology prevails)
<b>Innovation</b>	Capacity for innovation	In your country, how do companies obtain technology? (1 = Exclusively from licensing or imitating foreign companies; 7 = By conducting formal research and pioneering their own new products and processes)
	Competitive advantage	What is the competitive advantage of your country's companies in international markets based upon? (1 = Low-cost or natural resources; 7 = Unique products and processes)
	Extent of marketing	In your country, to what extent do companies use sophisticated marketing tools and techniques? (1 = Very little; 7 = Extensively)
<b>ICT</b>	Government prioritization of ICT	How much priority does the government in your country place on information and communication technologies? (1 = Weak priority; 7 = High priority)
	Online government services	To what extent are online government services (e.g. personal tax, car registrations, passport applications, business permits, customs procedures and e-procurement) available in your country? (1 = Not available at all; 7 = Extensively available)
	Extent of business Internet use	To what extent do companies within your country use the Internet in their business activities (e.g. buying and selling goods, interacting with customers and suppliers)? (1 = Not at all; 7 = Extensively)

# The Quality of national institutional environment of EU and Neighboring Countries in Comparative perspective

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## **Abstract**

The paper focuses on a comparative analysis of the institutional quality of the European Union countries and its neighbors: candidate countries, European Neighboring countries (South and East) and Black Sea countries. The main aim is to highlight trends of convergence or divergence of institutional quality across time for single countries or groups of countries and their influence on global competitiveness. Based on reliable data from the World Economic Forum (WEF), reflecting the assessment of qualified experts of the business sector, a methodological framework is elaborated, in order to test empirically, our main hypothesis: The contradictory process of Europeanization towards integration promotes the improvement of institutional quality of national environments in different ways, which are expressed in trends of convergence and/or divergence, changing over time depending on different domestic responses to adopt the “European acquis” and other driving forces (globalization, financial crisis etc.). Furthermore, the improvement of institutional quality (government effectiveness, regulatory quality, rule of law, control of corruption) influences positively the path of economic development and global competitiveness of a country / group of countries.

## **Keywords**

Quality of national institutions, Europeanization, global competitiveness, governance, comparative analysis, institutional quality, government effectiveness, regulatory quality, rule of law, control of corruption

**JEL Classification**

J240, O180, O470, R110

## **1. INTRODUCTION**

The paper focuses on a comparative analysis of the quality of national institutional environments of selected groups of countries: EU, candidate, European neighboring and Black Sea countries. The main objective of the research is to highlight trends of convergence and/or divergence of the institutional quality across time for single countries or groups of countries and their respective global competitiveness. Although the quality of institutions is not easy to measure, the World Economic Forum provides a solid base of common data and indicators for all countries, based on a sample of qualified experts of the business sector, reflecting their assessment as actors in different national institutional environments. The paper consists of five parts and the conclusions.

The second part deals with the theoretical background, presenting three strands of theoretical approaches (“neo-institutionalist”, “governance” and “Europeanization” approach) contributing to the relation of institutional environment with economic growth and development. Three hypotheses are formulated, concerning the direction of change of institutional quality (improvement / deterioration, convergence / divergence) of single countries and groups of countries and their relevant scoring in global competitiveness.

In the third part of the paper the methodological framework for the measurement of national institutional quality is presented. The operationalization of the empirical comparative research (on the data from WEF), consists of the selection of the most appropriate indicators, constructing four pillars of institutional quality (“Government Effectiveness”, Regulatory Quality”, “Rule of Law”, “Control of Corruption”) and a “composite” Index of Institutional Quality for each one of the examined countries. According to the different “waves” of Europeanization and geographical criteria, several groups of countries are comparatively analyzed: EU 15 old member states, EU 12 new member states, EU 27 of today, candidate countries, ENC countries (south and east) and Black Sea countries.

In the fourth part of the paper the main trends of convergence and/or divergence of the institutional quality among different groups of countries are examined.

The fifth part of the paper deals with a more detailed analysis of the four main fields of institutional quality (government effectiveness, regulatory quality, rule of law, control of corruption). The main findings concerning trends of convergence and divergence are presented, while the linkage of global competitiveness and the Quality of Institutions is identified.

In the conclusions, the main results of the empirical research in relation to the main hypothesis are summarized.

## **2. QUALITY OF INSTITUTIONS, EUROPEANIZATION AND GLOBAL COMPETITIVENESS: THEORETICAL BACKGROUND**

Institutions matter! The importance of institutional framework for the economic development has been persuasive and well founded both theoretically and empirically in a series of comparative studies.

Three strands of theoretical approaches, based on different methodological frameworks and different disciplines (economics, political sciences) have mainly contributed to the impact of institutional environment on economic growth and development: a) neo-institutional economics b) Governance approach and c) the Europeanization approach.

a) The “neo-institutional economics” highlighted the relevance of institutions and their impact at the macro or micro level on the market economy and economic growth (North, 1990) (North, 1990, Hodgson, 1998, Campbell, 2004, Olson et al., 2000). Good performance of public institution is acknowledged as an important factor for economic development. The institutional framework can facilitate or discourage new investments. The legal and administrative regulations and the relevant rules and norms function as incentives and disincentives for economic transactions in the markets (Olson et al., 2000, North, 1990). On the one hand, effective government, high quality of public services, enforcement of the rule of law, protection of property rights, transparency of policy making and judicial independence encourage business climate and economic growth. On the other hand, institutional failure caused from a series of factors like favouritism, corruption, bureaucracy, wasteful public spending, and inefficiency of the enforcement of the rule of law function as burdens and obstacles for business and economic development. Neo-institutionalist economic research has shown in a broad number of studies the close link among the institutional framework and economic growth.

b) The “Governance approach” has highlighted the importance of new forms in governing modern societies towards participatory governance and horizontal networking, which can achieve broader legitimacy and efficiency in policy making and thus can contribute to economic development complementing the hierarchical representative forms of governing (Rhodes, 1995, Mayntz, 2009, Heinelt, 2010). Given the failures of the state and the market as it is expressed in the crisis of the legitimacy paradigm, (Haus, 2010) (concerning the political representation, the socio-economic mode of regulation and the public administration), “post-hierarchical” new forms of participatory governance offer better outcomes in win-win situations (Geisel, 2012, Getimis and Kafkalas, 2002, Heinelt et al., 2002). Hierarchical and vertical forms of governing are often associated with inefficiency, authoritative decision making, clientelism and favouritism, distrust, uncivicness,

dishonesty, law breaking and corruption (Putmann, 1993). On the other hand, “horizontal networks” and new governance arrangements are considered more legitimate and effective, associated with trust, fairness, cooperation, civicness and reciprocity. Even if this strict dichotomy does not absolutely correspond to the complex reality, where vertical/hierarchical and horizontal/network forms of governance coexist (Getimis and Kafkalas, 2002, Grote, 2012), the important contribution of the governance debate should not be underestimated. A series of the theoretical and empirical research studies, within the framework of multi-level governance approach, have highlighted the important links among institutional frameworks (at a national and regional/local level) with economic and regional development (Grote et al., 2008, Grote, 2012, Geisel, 2012).

c) The “Europeanization approach” highlighted important aspects of the dynamic and contradictory process of “top-down” or “bottom-up” European integration, focusing on the changes of the different national and institutional frameworks towards convergence or divergence (Olsen, 2010, Risse et al., 2001, Boerzel and Risse, 2003). “...a large number of partly autonomous processes of incremental change have fostered integration with consistent direction over half a century [...] in spite of considerable political, economic, social and cultural diversity; disagreement about the kind of Europe and political community that is desirable; incomplete means-end knowledge and control; ambiguous compromises, uncertain effects, and surprise events and developments” (Olsen, 2010). The incremental construction of the “European Acquis” on the one hand, concerning regulatory institutions on the one hand (legal and administrative directives and norms) and the voluntary mechanisms and tools of coordination and cooperation on the other hand (e.g. Open Method of Coordination, “white paper of governance”, subsidiarity principle) form the common European institutional policy framework, which member states are committed to adopt (Radaelli, 2004).

However, processes of Europeanization are not linear harmonization processes. Despite early assumptions about adoption of a pan-European pattern by all states, more recent theoretical and empirical studies (Bache, 2008, Paraskevopoulos et al., 2006, Giuliani, 2003, Radaelli, 2003, Radaelli, 2004) have focused on the divergent processes of Europeanization in different countries and macro-regions reflecting the “goodness of fit” or “misfit”, along line different responses of domestic structures to the “European Acquis”. Institutional settings and strategies of actors at the national and regional level play an important role in the convergent or divergent trends of Europeanization [“cluster convergence” (Boerzel and Risse, 2003)]. “Path-dependent” and “path-shaping” factors influence the different trajectories of change, with different paces and velocities of transformation. Existing traditional institutional structures and practices coexist with reformative and innovative efforts, while the implementation of reforms to increase the quality, as



most evaluation reports show, is lagging behind, even in cases of legal compliance (“formal” or “nominal” convergence). Accordingly, important differentiations concerning the quality of institutions across the EU countries exist, while different paths of economic development for every country or groups of countries are acknowledged.

Based on the above three strands of theoretical approaches (neo-institutionalist, Governance and Europeanization) the paper attempts a comparative analysis of the national institutional environments of EU and neighboring countries and groups of countries in a period from 2004 to 2011. The analysis focuses on features of institutions at the national level, due to the lack of data at the regional level. The comparative analysis relies mainly on a qualitative assessment of features of institutional quality (government efficiency, regulatory quality, rule of law, control of corruption). The quality of institutions is not easy to measure (Kaufmann et al., 2008). The World Economic Forum provides however, a solid base of common indicators and empirical data, based on a sample of qualified professionals and experts of the business sector, reflecting their perceptions and assessment as actors in different national institutional environments.

Our starting assumption is that the contradictory Europeanization process towards integration, with convergence and divergence trends, promotes in different ways the improvement of institutional quality, which affects positively economic development and global competitiveness. “Europeanization” constitutes the basic driving force for the reforms and transformations of the national institutional environments. However, every country has its “significant trajectory” of institutional performance. Other factors e.g. domestic responses to the adoption of “European Acquis” and the global financial crisis and the different impacts on national economies also play an important role. Based on this assumption, the following hypotheses are formulated and empirically tested:

#### *Hypothesis H1*

The “old EU 15” (“old” 15 member states) show in average better institutional performance than the EU27, while candidate countries, neighboring countries (NC) and Black Sea countries (BSEC) are lagging behind (different “paces of Europeanization” among groups of countries). Old democracies with a long tradition in developed and effective governance structures perform better concerning institutional quality than the new EU member states (12) and candidate countries, many of which are former communist countries and states in transition to market economies.

#### *Hypothesis H2*

Convergent or divergent trends among different groups of countries (EU15, EU27, Candidate Countries, Neighboring Countries, BSEC) can change over time, due to other than

Europeanization driving forces (domestic path-dependency or globalization). Are there significant differences among countries belonging to the same group e.g. North-South divide in EU, East-West NC countries? It is expected that countries with well-designed and effective public services, respecting and protecting property rights, enforcing the rule of law and controlling corruption (e.g. Nordic countries) score high in institutional quality, while countries with redundant regulation, corruption, clientalism and favouritism (e.g. Greece, Italy, Bulgaria) score much less. Furthermore, it is also expected that, differences in institutional performance emerge across the different fields of institutional quality (indicators) a) governance effectiveness, b) regulatory quality, c) rule of law d) control of corruption.

### *Hypothesis H3*

The quality of institutional environment influences the path of economic development and global competitiveness of a country. Countries or group of countries with a high score of institutional performance show a high score in institutional competitiveness (GDP and other economic indicators).

## **3. METHODOLOGICAL FRAMEWORK: MEASUREMENT OF NATIONAL INSTITUTIONAL QUALITY**

The methodology that was followed for the measurement of the national institutional environments was mainly based on the data provided by the Global Competitiveness Reports (GCRs) published by the World Economic Forum (WEF)<sup>23</sup>.

Based on annual Executive Opinion Surveys, the GCRs provide a Global Competitiveness Index for each country (GCI), composed of nine pillars of indicators, reflecting different aspects of the competitiveness of an economy. In order to construct a “composite” Index of Institutional Quality and be able to compare different national institutional environments, we had to select the most appropriate indicators and construct four new “pillars” that constitute crucial aspects of institutional quality, focusing on its impact to economic development and business. The operationalization that was followed was based on the concept that the Index of national institutional quality is dependent on “Government Effectiveness”, “Regulatory Quality”, “Rule of Law” and “Control of Corruption”, which correspond to the new 4 pillars. In their turn, each pillar is composed of a number of indicators (18 in total) selected from the WEF surveys. This crucial

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<sup>23</sup> Similar methodology has been used by JURLIN, K. & CUCKOVIC, N. 2009. Comparative Analysis of the Quality of Institutions in the European countries. *XVII Scientific Conference: Associazione Italiana per lo Studio dei Sistemi Economici Comparati*. Perugia, Italy in their study on comparative analysis of the Quality of Institutions in the European countries. Based on data by WEF, they constructed a composite Index and five sub-indexes for their analysis.

selection focused on indicators, concerning burdens and strengths of institutional framework and policies regarding trust, favoritism, transparency, reliability etc. In this framework, the new pillars that were constructed and the selected indicators are shown in the following Table 1. All scores of the WEF survey questions range from 1 (worst score) to 7 (best score).

The analysis focuses on different geographical groups of countries, corresponding to the different waves and paths of Europeanization. The EU 15, the “old Europe”, with 15 country members till 1986, the EU 27 of today after the accession of the 12 new member states and the important Enlargement of 2004, the current Candidate countries (6) and the European Neighboring Countries, which are examined in two distinctive geographical macro-regions (Eastern and southern). Additionally, the group of Black Sea countries is analyzed, as a specific regional cooperation area, in which a mixture of countries participate (EU member states, candidate countries, eastern neighboring countries and the Russian Federation). More analytically:

- a) The 15 old members of the EU: (EU15: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom)
- b) The EU member states as they are today, after the Enlargement of the EU with the 12 new member states: (EU27: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom)
- c) The Candidate countries: (CC: Croatia, Iceland, FYROM, Montenegro, Serbia, Turkey)
- d) The European Neighborhood countries: (ENC total: Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Moldova, Morocco, Syria, Tunisia, Ukraine)
  - a) The Eastern European Neighborhood countries: (ENC East: Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine)
  - b) The Southern European Neighborhood countries: (ENC South: Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Syria, Tunisia)
- e) The Black Sea countries<sup>24</sup>: (BSEC: Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania, Russian Federation, Serbia, Turkey, Ukraine)

In an attempt to evaluate the evolution of institutional quality over time, both in specific countries and in groups of countries, we examined the WEF indicators that were analyzed in the Global

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<sup>24</sup> The 12 Black Sea countries are the ones mentioned in the Black Sea Economic Cooperation (BSEC).

Competitiveness Reports of the years 2004, 2006, 2008, 2010 and the most recent one, 2011<sup>25</sup>. In this way, we can obtain a general overview of the institutional trends and make sound comparisons.

**Table 1: Index of Institutional Quality**

	<b>PILLARS</b>	<b>INDICATORS</b>	<b>SURVEY QUESTION</b>
<b>INDEX OF NATIONAL INSTITUTIONAL QUALITY</b>	<b>1. Government Effectiveness (GE)</b>	1.1 Public trust of politicians	How would you rate the level of public trust in the ethical standards of politicians in your country? [1 = very low; 7 = very high]
		1.2 Favoritism in decisions of government officials	To what extent do government officials in your country show favoritism to well-connected firms and individuals when deciding upon policies and contracts? [1 = always show favoritism; 7 = never show favoritism]
		1.3 Wastefulness of government spending	How would you rate the composition of public spending in your country? [1 = extremely wasteful; 7 = highly efficient in providing necessary goods and services]
		1.4 Burden of government regulation <sup>26</sup>	How burdensome is it for businesses in your country to comply with governmental administrative requirements (e.g., permits, regulations, reporting)? [1 = extremely burdensome; 7 = not burdensome at all]
	<b>2. Regulatory Quality</b>	2.1 Efficiency of legal framework <sup>27</sup>	The legal framework in your country for private businesses to settle disputes and challenge the legality of government actions and/or regulations [1 = is inefficient and

<sup>25</sup> Each year, every GCR includes data for more countries than the previous one. So, the GCR of 2004 includes 104 countries, the CCR 2006 125 countries, the GCR 2008 134 countries, the GCR 2010 139 countries and the GCR 2011 142 countries. Inevitably, there are missing countries and data in certain calculations.

More specifically, in 2004 the missing countries are Albania, Armenia, Azerbaijan, Lebanon, Moldova, Montenegro (which is considered as one country along with Serbia) and Syria. In 2006, Lebanon, Montenegro (is with Serbia) and Syria are missing. In 2008, the missing country is Lebanon and for 2011 Libya.

<sup>26</sup> For year 2004, the indicator 1.4 “Burden of government regulation” corresponds to the “Burden of central government regulation” as it is presented in the GCR 2004-2005.

<sup>27</sup> For years 2010 and 2011, the indicator 2.1 “Efficiency of legal framework” is calculated as the average of two separate indicators: “Efficiency of legal framework in settling disputes” and “Efficiency of legal framework in challenging regulations”, as they are presented in the GCR 2010-2011 and CCR 2011-2012.

	<b>(RQ)</b>		subject to manipulation; 7 = is efficient and follows a clear, neutral process]
		2.2 Transparency of government policymaking <sup>28</sup>	How easy is it for businesses in your country to obtain information about changes in government policies and regulations affecting their activities? [1 = impossible; 7 = extremely easy]
		2.3 Strength of auditing and reporting standards	In your country, how would you assess financial auditing and reporting standards regarding company financial performance? [1 = extremely weak; 7 = extremely strong]
		2.4 Efficacy of corporate boards	How would you characterize corporate governance by investors and boards of directors in your country? [1 = management has little accountability to investors and boards; 7 = investors and boards exert strong supervision of management decisions]
		2.5 Protection of minority shareholders' interests	In your country, to what extent are the interests of minority shareholders protected by the legal system? [1 = not protected at all; 7 = fully protected]
	<b>3. Rule of Law (RL)</b>	3.1 Property rights	How would you rate the protection of property rights, including financial assets, in your country? [1 = very weak; 7 = very strong]
		3.2 Intellectual property protection <sup>29</sup>	How would you rate intellectual property protection, including anti-counterfeiting measures, in your country? [1 = very weak; 7 = very strong]
		3.3 Judicial independence	To what extent is the judiciary in your country independent from influences of members of government, citizens, or firms? [1 = heavily influenced; 7 = entirely independent]
		3.4 Business costs of terrorism <sup>30</sup>	To what extent does the threat of terrorism impose costs on businesses in your country?

<sup>28</sup> For year 2006, the indicator “Transparency of government policymaking” does not exist in the GCR 2006-2007.

<sup>29</sup> For year 2006, the indicator “Intellectual property protection” does not exist in the CCR 2006-2007.

			[1 = significant costs; 7 = no costs]
		3.5 Business costs of crime and violence	To what extent does the incidence of crime and violence impose costs on businesses in your country? [1 = significant costs; 7 = no costs]
		3.6 Organized crime	To what extent does organized crime (mafia-oriented racketeering, extortion) impose costs on businesses in your country? [1 = significant costs; 7 = no costs]
		3.7 Reliability of police services	To what extent can police services be relied upon to enforce law and order in your country? [1 = cannot be relied upon at all; 7 = can always be relied upon]
	<b>4. Control of Corruption (CC)</b>	4.1 Diversion of public funds	In your country, how common is diversion of public funds to companies, individuals, or groups due to corruption? [1 = very common; 7 = never occurs]
		4.2 Ethical behavior of firms	How would you compare the corporate ethics (ethical behaviour in interactions with public officials, politicians, and other enterprises) of firms in your country with those of other countries in the world? [1 = among the worst in the world; 7 = among the best in the world]

According to the three Hypotheses, formulated in the first theoretical part of the paper, the main purposes of the quantitative analysis were the identification of:

- national evolutions of government effectiveness, regulatory quality, rule of law, control of corruption and institutional quality as a whole (Hypothesis 1)
- the same trends of the abovementioned indicators, but in different geographical levels calculating the average indicators for the specific groups of countries mentioned before (Hypothesis 1)
- comparisons regarding trends of convergence or divergence among different groups of countries and between countries within the same group, concerning their institutional quality, compared to the EU15 figures (Hypothesis 2)
- linkages between institutional quality and competitiveness of economies (Hypothesis 3)

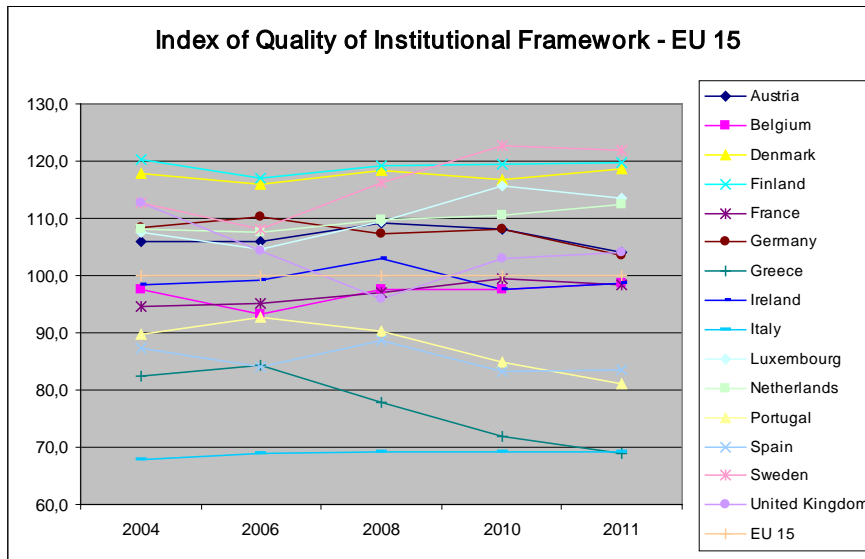
<sup>30</sup> For year 2004, the indicator “Business costs of terrorism” does not exist in the GCR 2004-2005.

#### **4. TRENDS OF CONVERGENCE AND/OR DIVERGENCE: EUROPEANIZATION TOWARDS MULTIPLE DIRECTIONS OF CHANGE OF THE QUALITY OF INSTITUTIONAL ENVIRONMENT**

Different waves of Europeanization and different paths of adaptation to the “European acquis” are reflected in changes of the quality of national institutional environment. The analysis focuses on the time frame from 2004 until 2011, attempting to identify trends of convergence or divergence regarding the levels of institutional quality in every country, comparing to the average of EU 15, as a common base of reference. Furthermore, convergence or divergence trends within the groups of countries (using the coefficient of variation) are measured. For this reason we developed the composite Index of Quality of Institutional Framework, which is composed by the 4 pillars of government effectiveness, regulatory quality, rule of law and control of corruption. For each country, the average of the 4 scores of these pillars synthesizes the index of quality of institutional framework.

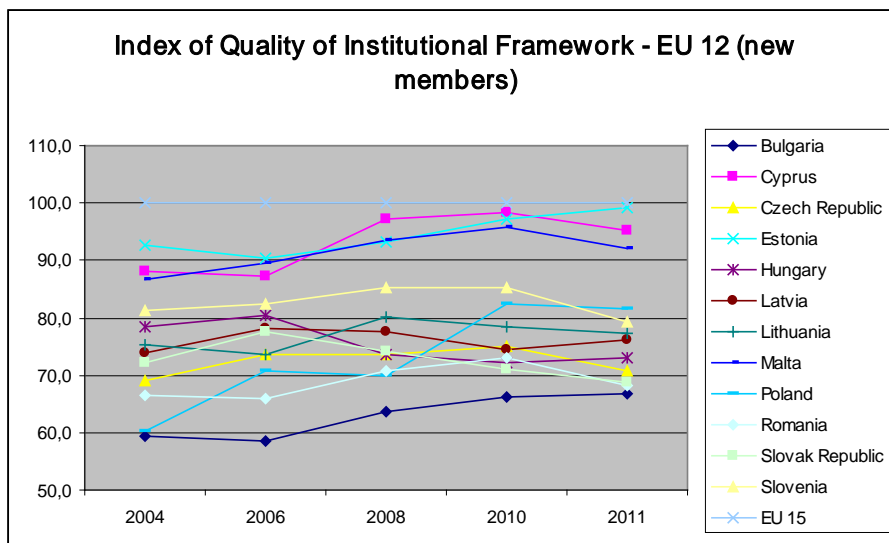
For the 15 European “old” member states the following graph (Figure 1) illustrates the evolution of the 15 countries from 2004 until 2011, regarding the quality of their institutions. It is interesting to note that there is no clear convergence towards the EU15 average. The southern countries are lagging behind concerning the European average, while Portugal and Greece have also a declining course since 2006. Italy keeps the lowest scores (below 70), having a stagnating course over the years. The other countries showcase values just under or above the EU15 average, not having significant changes in the examined time period. Only Sweden presents an upwards trend since 2006 having the highest score of all in 2011 (121,8). A north / south division persists, although strong pressures of Europeanization exist, both legislative and regulatory within the “acquis communautaire”.

**Figure 1**



The 12 “new” EU member states, which together with the EU 15 “old” members constitute the EU 27 of today, show worse scores than the EU 15, concerning the quality of institutions (Fig. 2). However, although it was expected to show significant trends of institutional quality improvement, there is a stalemate without clear convergence to the EU 15 average. Different trends reflect different velocities and paths of Europeanization: on the one hand, countries such as Estonia and Poland move towards EU 15 average, on the other hand, other countries perform worse scores, diverging from EU 15 average (e.g. Hungary et al.).

**Figure 2**

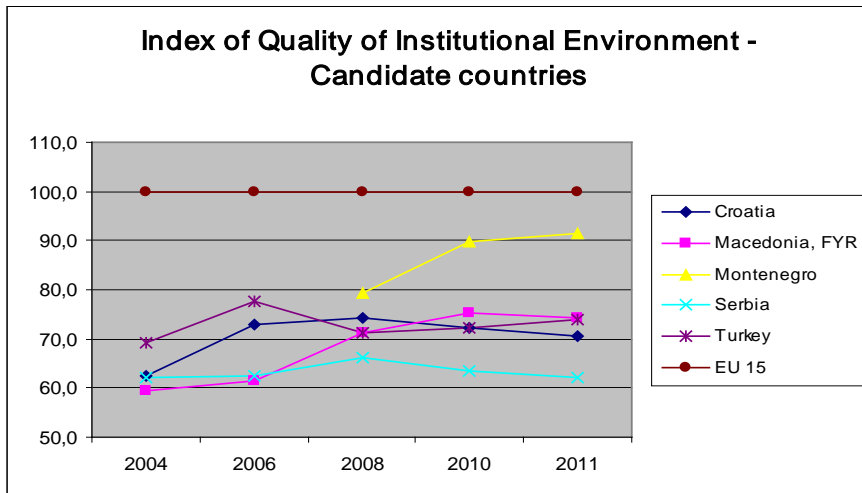


Candidate countries, being at strong pressure of Europeanization in the pre-accession phase and adopting the Copenhagen criteria, show improvement of institutional quality (Fig. 3), especially



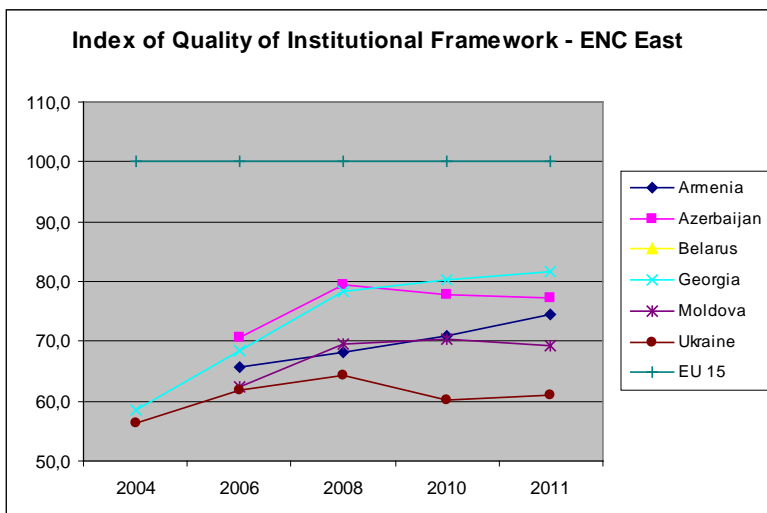
until 2006 (“enlargement euphoria” period 2000-2006) and a stagnation trend of convergence after 2006, compared to the EU 15 average. In particular, Montenegro and FYROM improve steadily in the whole period (2004-2011) their institutional quality converging to the EU 15 average.

**Figure 3**



Concerning the Eastern neighboring countries, Georgia, Armenia and Moldova indicate convergence trends towards the EU15 average, although their course to this direction is being made with small steps (Fig. 4). Azerbaijan and Ukraine, on the other hand, have a declining course regarding their quality of institutional framework, although this fall is not significant.

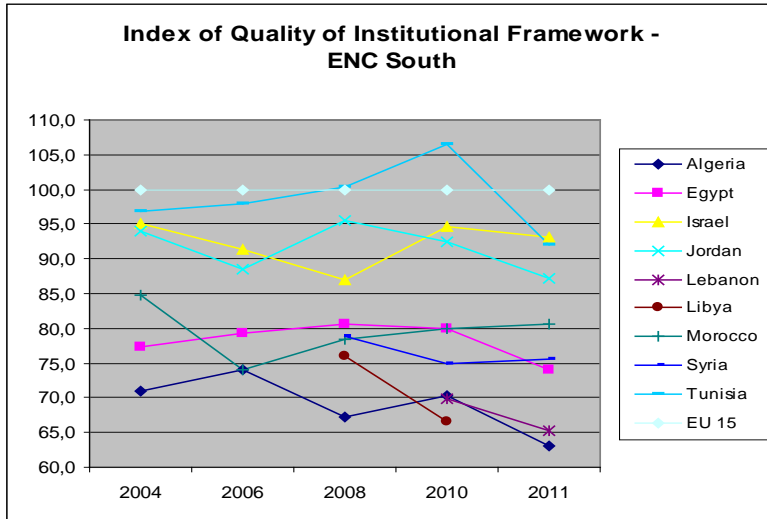
**Figure 4**



Regarding the neighboring countries of south, Tunisia indicates surprisingly high figures of institutional quality, near below or even above the EU15 average (Fig.5). Right after, Israel and Jordan follow with many ups and downs and no specific trend of convergence or divergence to the

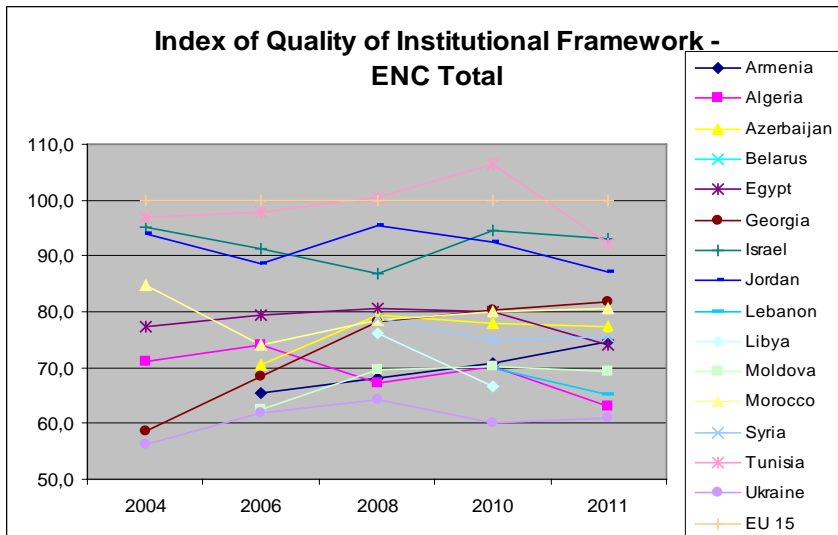
European average. The rest of the countries present quite lower scores, with a remarkable fall in 2010, probably due to their involvement in the Arab Spring.

**Figure 5**



Regarding the whole group of neighboring countries, we cannot detect any convergence or divergence trend to the EU15 average (Fig. 6). On the contrary, calculating the average scores of the group of neighboring countries for the 5 different years, we simply observe a stagnating course.

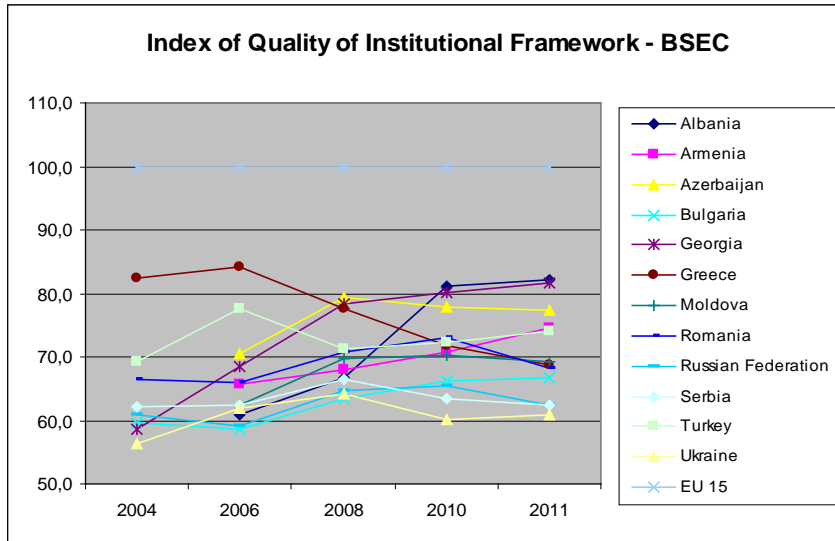
**Figure 6**



The BSEC countries, a regional cooperation macro-region with a mixture of EU and non EU countries, show different paths of institutional performance. The scores of the BSEC countries indicate that they are lagging behind regarding the quality of institutions, but most importantly, they do not present any signs of convergence towards the European average (Fig. 7). A slight

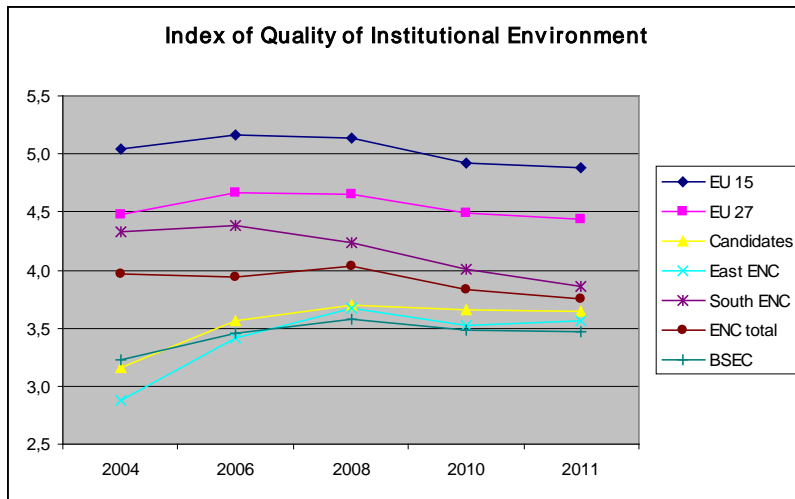
improvement until 2006 is followed by a stagnation trend in the period 2006-2011. Especially Greece has the highest divergence trend from the EU15 average, especially since 2006, which may be interpreted by the insufficient economic governance and the institutional corruption, which had already, began to spread, long before the economic crisis of 2008.

**Figure 7**



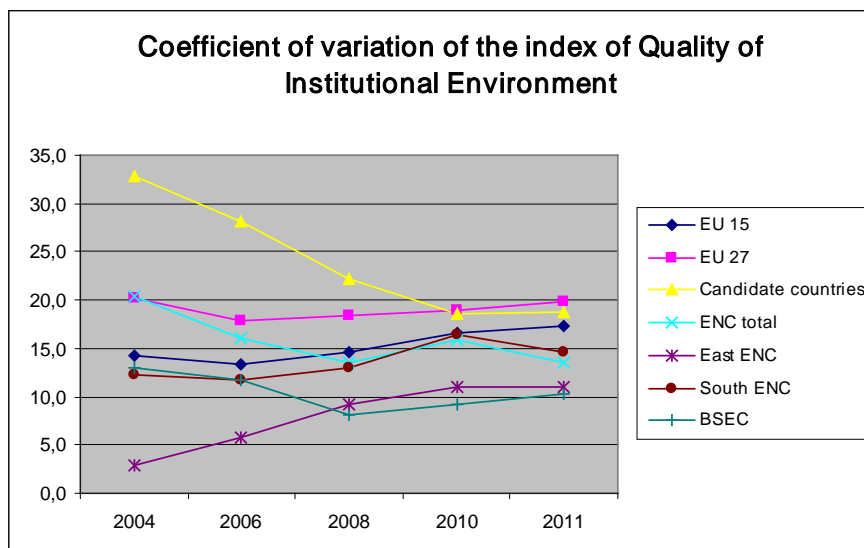
The abovementioned outcomes can be summarized in the following graph, where the institutional quality figures are given in a scale from 1 (worst score) to 7 (best score) (Fig. 8). It is interesting to stress that the leading geographical group is the EU15 with the best scores in the quality of institutional framework. The next best groups are the EU27, the ENC South, the ENC Total and the Candidate countries. In these five groups of countries, it is worth mentioning that, their performances slightly decline after 2008, showcasing that the economic crisis is negatively affecting the quality of institutions. Concerning the other groups of countries (ENC East and BSEC), they present similar scores, while they do not seem to be particularly influenced by the financial crisis of 2008.

**Figure 8**



Attempting to measure the convergence or divergence levels within the groups of countries, we used the Coefficient of Variation as a ratio of the standard deviation to the mean (average value) (Jurlin and Cuckovic, 2009). The results, which are illustrated in the following graph (Fig. 9), indicate only in the group of candidate countries there is a strong convergence trend from 2004 until 2010. Between the countries of EU15, EU27 and ENC South, convergence is also evident, but only until 2006. After that, it seems that the countries begin to follow different courses (slightly divergence trends). On the contrary, in the group of ENC East the high divergence between countries is terminated in 2010, with stagnation since.

**Figure 9**



Overall Europeanization process is not a linear adaptation procedure of the “European acquis” and does not always lead to “Goodness of Fit” and improvement of national institutional quality. Although incremental improvements have been made, especially in the phase of “enlargement euphoria”, multiple directions of change of national institutional environments and different

velocities and paths of institutional reforms emerge and even “Misfit” situations of worsening of the institutional quality have been empirically detected. The reproduction of inherent inequalities e.g. north-south division in EU 15 and the different domestic responses to globalization and crucial situations (e.g. financial and economic crisis of 2008, public debt crisis of southern EU states 2009-2012, Arab Awakening et al.) are important factors influencing, in different ways, the change of the national institutional environment of any single country. Convergence, divergence and stagnation trends in the different groupings of countries have been detected.

## **5. COMPARING THE QUALITY OF INSTITUTIONAL FRAMEWORK**

In this section of the analysis four separate indicators are being analyzed: Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption. As it is indicated in the graphs of Annex I, for each indicator we examine the seven groups of countries (EU 15, EU 12 new member states, Candidates, ENC East, ENC South, ENC Total and BSEC), always in comparison to the average of EU 15. In order to calculate the scores ( $I_{ij}$ ) of each country (i) for each one of the 4 abovementioned indicators (j), we used the following formula, where  $S_{ij}$  are the original WEF scores and  $S_{EUj}$  are the WEF scores for the EU15 countries:

$$I_{ij} = 100 * S_{ij} / (\sum S_{EUj} / 15)$$

All results are interpreted as below or above EU15 average for the scores below or above 100, respectively. For example an indicator score “90” means that a country has scored 10% below the EU15 average for the specific indicator.

The main aim of this procedure is to provide some detailed outcomes of the 4 pillars, identifying which countries are leaders of institutional quality and which follow next and are lagging behind.

### **5.1 Government Effectiveness**

The scores of Government Effectiveness of the seven groups of countries compared to the average EU15 score are illustrated in figures 10-16 (Annex I). The main results of the analysis are presented by country group below.

The countries of the EU 15 group ([Fig. 10](#)) are almost equally divided below and above the EU15 average (north-south division). The northern countries (Finland, Denmark, Sweden, Netherlands, Luxembourg, Germany and Austria) are those presenting the highest scores. The United Kingdom scored above the EU15 average for years 2004 and 2006, but its course was declining until 2008. The southern countries (Portugal, Spain, Greece, and Italy) along with France, Belgium and

Ireland are for the whole period from 2004 until 2011 below the EU15 average. Especially the scores of Italy are particularly low, while Greece is the second worst, presenting a continuous decline since 2006.

The 12 new member states present worse scores of government effectiveness compared to the old member states (Fig. 11). All countries are much lower than the EU 15 average, apart from Cyprus and Estonia, whose improving course since 2006, makes them the leaders of their group in 2011, with scores even higher than the average score of the EU 15 “old” countries. The rest of the countries do not present any clear convergence trend towards the European average, since it is evident from their performances that there are many fluctuations over the examined time period.

The performance of government effectiveness of candidate countries (Fig. 12) compared to the EU15 average shows that Turkey, FYROM, Serbia and Croatia are quite below the European average. Especially in the case of Serbia stagnation is observed, while FYROM and Turkey present increased scores over time. On the other hand, Montenegro has particularly high scores of government effectiveness with increasing course since 2008 and since 2010 is above the EU15 average.

The Eastern neighboring countries (ENC East) (Fig. 13) range from 60 to 90, concerning government effectiveness and have an increasing trend approaching the EU15 average with slow but steady steps. The best performances can be found in Georgia and Azerbaijan, while Armenia, Moldova and Ukraine follow next.

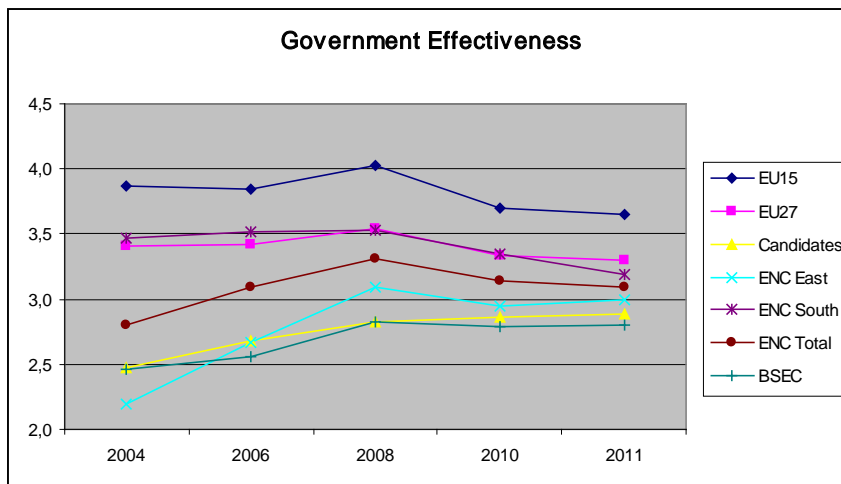
The Southern neighboring countries (ENC South) (Fig. 14) range from 70 to almost 100 regarding their government effectiveness scores, with several ups and downs from 2004 until 2011. The only exception is Tunisia which presents extraordinarily high scores above the EU15 average, reminding the performances of Netherlands or Luxembourg. And regardless the sudden fall in its score from 2010 to 2011 (approximately from 130 to 110), its government effectiveness value is still higher than the European average.

Concerning the group of all the neighboring countries (ENC Total) (Fig. 15), apart from the case of Tunisia which presents the highest scores, all other countries perform below the EU15 average. Jordan is one of the best performing countries, although its scores have a declining course since 2008. Georgia has a remarkable increase of government effectiveness values (from 60 to 97) over the years, while Ukraine and Moldova have the lowest scores. An important decline is observed in Algeria, especially after 2006.

In the case of the BSEC regional cooperation area (Fig. 16), all 12 countries are below the EU15 average but the majority of them present an increasing trend through the years. The only exception is Greece which, although a European country, has a declining course since 2006.

The following diagram illustrates the average scores of the seven groups of countries, in order to obtain a general overview of the group performances regarding their government effectiveness. The scores are given in a scale from 1 (worst value) to 7 (best value). As it is illustrated below, the best performing group is the EU 15 old member states, which however, has a declining tendency since 2008. Similar trends can be observed in the groups of EU27, ENC South and ENC Total that have lower scores. Even lower performances can be detected in the cases of ENC East, Candidate and BSEC countries, which nevertheless, present a slightly improving course.

**Figure 17**



## 5.2 Regulatory Quality

The second pillar of indicators is the “Regulatory Quality”, where the national performances of countries are categorized in the seven groups and are compared to the EU 15 average score of regulatory quality (see Figures 18-24 in Annex I).

In the first group of countries, the EU 15, it is evident that the majority of countries is above the European average, while there is a tendency of a remarkable increase of their performances after 2010 (Fig. 18). The only countries scoring low are the Mediterranean ones; Spain, Portugal, Greece and Italy, whose performance is the lowest of all (north-south division). Belgium is the only northern country that is below the EU15 average, while it is worth mentioning that Ireland

presents a notable decrease after 2008, which might be explained by the economic crisis that emerged in that year.

The 12 new member states present strong convergence trends to the EU 15 average score ([Fig. 19](#)), during the whole examined time period. Estonia, Cyprus and Malta have the best scores slightly below the European average, while the rest of the countries present lower figures, regarding the performance of their national regulatory quality.

The Candidate countries indicate a clear trend towards the EU15 average score ([Fig. 20](#)), ameliorating their national scores of regulatory quality and converging to the European figure. This tendency is especially apparent after 2008. In this case the national economic performances do not present any connection with the quality of regulations. It is also worth mentioning that out of the 5 candidate countries, Turkey is the one with the highest increase of regulatory quality figures.

The Eastern neighboring countries present an augmenting performance since 2006 ([Fig. 21](#)), approaching the EU15 average score. It seems that all countries have similar scores in the examined time periods, except for Ukraine, whose scores are quite lower and its increasing tendency is slower than the others.

In comparison to the eastern neighboring countries, the southern ones have better scores of regulatory quality ([Fig. 22](#)). The figures of Tunisia, Israel and Jordan are rather impressive. Especially Tunisia even surpasses the European average for 2010! Another observation is that the countries of this group do not have a common trend since 2004 and that their scores range significantly between 65 and 101. Finally, it is worth noting that Morocco has the most remarkable course of convergence to the European average with a continuous increase of its regulatory quality since 2006.

As the whole group of neighboring countries is concerned (eastern and southern), the average regulatory quality of the group, despite divergent trends of the sub-groups and single countries, shows a slight improvement until 2011 ([Fig. 23](#)).

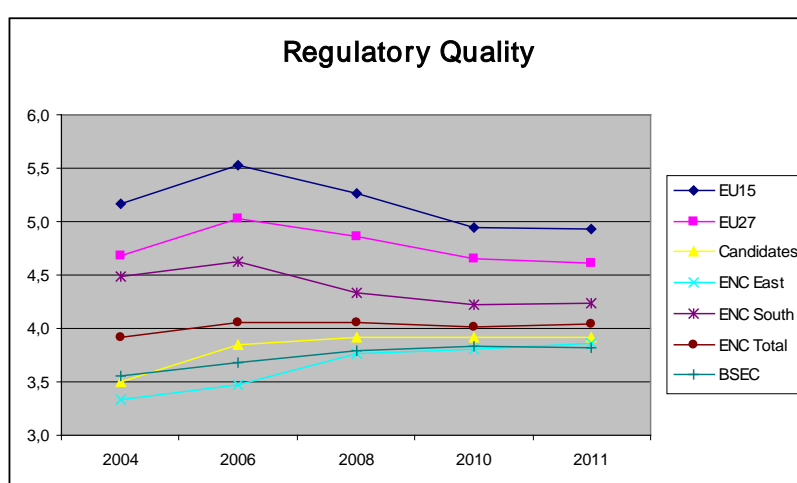
The BSEC countries' scores of regulatory quality are quite lower than the EU15 average value ([Fig. 24](#)). Nevertheless, there is an evident convergence to the European average score after the year 2006. All countries' figures are increasing since then, apart from Greece, which although it was the leader of the group in 2004, 2006 and 2008, it presents notable decrease since 2006. We



have to stress that out of the 12 BSEC countries, Albania has the most remarkable increase of regulatory quality figures.

Concerning the seven average scores of the seven groups of countries, the following figure gives an overview of the evolution of trends regarding quality of regulations. As it is illustrated below (Fig. 25) the evolution of group average scores is quite clear with the EU 15 being the leader of regulatory quality, followed by EU 27, ENC South, ENC Total, Candidate countries, BSEC and ENC East. It is worth mentioning that after 2006 the 3 best performing groups present a remarkable decline, while the four worst groups are rather stagnated.

**Figure 25**



### 5.3 Rule of Law

In the third pillar of indicators, we examine the national performances of countries regarding their “Rule of Law” and we compare it to the EU15 average figure (Annex I, fig. 26-32).

In the first group of the old EU member states, a first observation is that the majority of countries converge to the European average (Fig. 26). The southern countries of the Mediterranean (Spain, Italy and Greece) are once again below the average score for the whole period of time, while Portugal although having an increasing course until 2006 (above the European average), presents a notable fall ever since. Another important outcome emerging from the graph is the disappointing (decreasing) course of the United Kingdom until 2008, while since then, its rule of law scores are increasing. Greece’s figures are once more dramatically falling since 2006, while Italy has the worst scores for the whole period of time from 2004 until 2011.

Regarding the new 12 member states of the EU, a clear convergence trend to the EU 15 average score can be observed ([Fig. 27](#)). Although there are countries whose figures are decreasing over time (e.g. Slovak and Czech Republics), the general trend is that until 2010 there was an improvement in the rule of law average score of these 12 countries. A slight decline can be noted from 2010 until 2011.

Concerning the group of candidate countries ([Fig. 28](#)), we can observe that there are 2 different courses followed by Turkey and Serbia on the one hand, and Croatia, FYROM and Montenegro on the other. The first sub-group had a converging trend to the EU 15 average until 2006, when their figures started to decrease significantly until 2010 and since then, they follow again a very slow but yet increasing course. The other sub-group follows a steadily converging course (increasing figures) towards the European average, but from 2010 until 2011 their scores of rule of law stagnate.

The eastern neighboring countries score quite lower than the European average rule of law ([Fig. 29](#)) and they do not present any convergence trends towards it, rather stagnation, especially after 2008. Azerbaijan keeps the highest scores, while Ukraine the lowest.

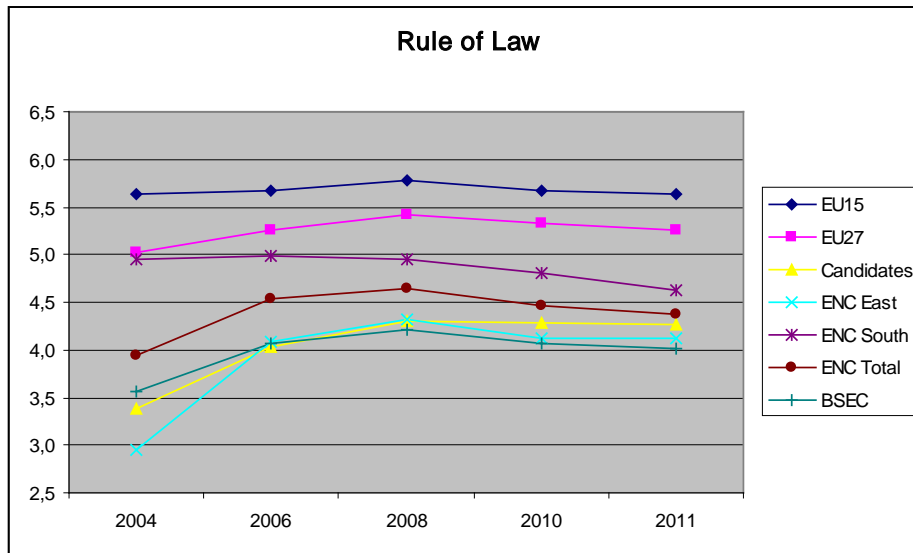
The southern neighboring countries perform better than the eastern ones ([Fig. 30](#)), with higher scores regarding the pillar of rule of law. However, we cannot observe a clear trend of the national scores, either converging or diverging to the EU 15 average. Again Tunisia (and Jordan this time) score extraordinarily high, while Syria has the lowest figures during the whole period of time since 2004.

Regarding the total group of neighboring countries ([Fig. 31](#)) a general trend is an improvement of rule of law figures from 2004 until 2008 and a slight decline ever since.

In the group of the BSEC countries, Greece stands out demonstrating the worst performance regarding its rule of law scores ([Fig. 32](#)). Although in 2006 it was slightly below the EU15 average, in 2010 after a decreasing course that kept for 4 years, Greece's score fell down to the levels of Albania and Azerbaijan, indicating the decayed political and institutional system of the country. For the rest of the countries there is no clear tendency of convergence or divergence to the European average. Although all of them appear to approach the EU15 average until 2006, some of them continue the same trend, but some others present a decreasing course until 2010. Nevertheless, the highest national increase is observed in Romania (although its scores fall after 2010), while the most abrupt fall (after the one of Greece) in Turkey (with an increasing trend since 2010).

Regarding the average rule of law performances of the seven groups of countries, it seems that there is an increasing course of their figures until 2008 and a clear decreasing trend ever since (Fig. 33). The European groups are once more ahead, followed by the ENC south, ENC total, Candidates, ENC East and finally BSEC countries.

**Figure 33**



#### 5.4 Control of Corruption

This section focuses on the fourth pillar of indicators, “Control of Corruption”, analyzing the performances of the seven groups of countries in relation to the EU 15 average (Annex I, fig. 34-40).

As the old EU member states are concerned (Fig. 34), the first observation that can be made is that the division between northern and southern countries is once more evident. All northern countries have higher scores in control of corruption than the European average, (apart from Belgium and France, which are slightly below) and most importantly keep an increasing course, which is more apparent especially after 2008. On the other hand, the southern countries (Portugal, Spain, Italy and Greece), not only do they have the lowest scores, but they also keep a significant declining course. Particularly Greece has the worst performance of all, emerging as the champion of corruption.

The 12 new member states’ performance is much worse compared to the old European countries (Fig. 35), while in general it is safe to stress that there is a slight divergence trend from the EU 15 average. Most of these countries present falling figures regarding the control of their corruption

(e.g. Slovenia and Czech Republic), while the best performing countries with increasing tendencies towards the EU average are Estonia and Poland.

Regarding the group of candidate countries ([Fig. 36](#)), Montenegro has the best performance in controlling corruption and also the highest convergence towards the EU 15 average. Increasing figures can also be noted in the case of Turkey but only after 2010, while the rest of the countries (Croatia, FYROM and Serbia) show declining scores and diverging courses from the European average.

As for the eastern neighboring countries, it seems that the task of controlling corruption is not an easy one ([Fig. 37](#)). 2011 figures for Azerbaijan, Moldova and Ukraine are lower than the respective scores of 2004, indicating that these countries are still far from approaching the EU 15 average. On the other hand, Georgia seems to have the best performance of all, moving swiftly towards the European average.

The southern neighboring countries present a clear divergence trend from the EU 15 average ([Fig. 38](#)). Even the high-scored countries of Tunisia, Israel and Jordan follow the same pattern as the rest of the group's countries since 2010, declining from their former high scores of 2008 and 2010.

The same divergence tendency is also observed in the case of the whole group of neighboring countries ([Fig. 39](#)). This declining course is not steep, but is quite steady over the years.

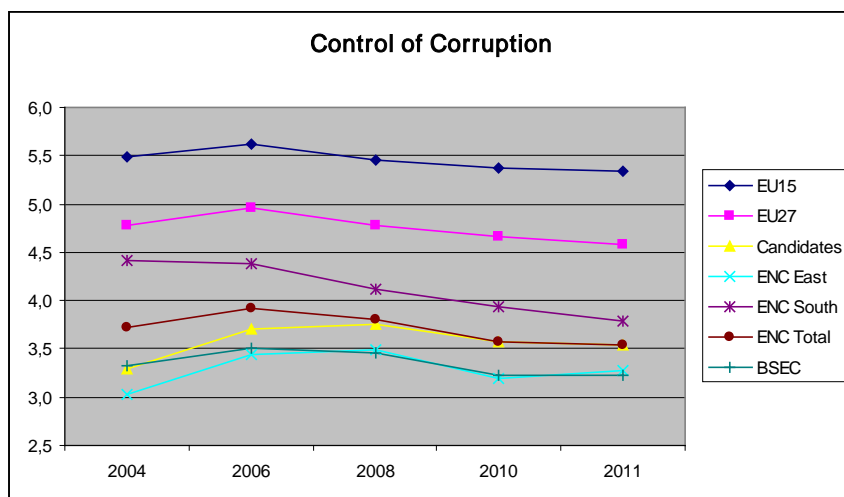
Finally, regarding the BSEC countries, it seems that there is also a declining course in the countries' scores since 2008 ([Fig. 40](#)). The most apparent fall of figures can be observed again (as in the three previous pillars) in the case of Greece, which presents a remarkable plunge since 2006, indicative of the corrupted political and institutional systems of the country. On the contrary, the best performances are those of Georgia and Albania, following a steadily increasing course towards the EU 15 average.

The average scores of the seven groups of countries concerning the pillar of control of corruption are illustrated in the figure below, in a scale of 1 (worst score) to 7 (best score). It is evident that there is a clear fall after 2006 in all group scores.

It is worth mentioning, that in all four pillars that were examined, the countries' groups are ranked in the same position more or less, indicating that there are no significant differences in the evolution of their trends during the time period from 2004 until 2011. The only difference that can be detected is in the average scores of the seven groups and especially the figures of "government

effectiveness” that seem to be lower in relation to the three other pillars of indicators. The highest average score of the EU 15 concerning government effectiveness is 4, when the respective scores in regulatory quality, rule of law and control of corruption are 5.5, 5.8 and 5.6, indicating the poor performance of countries in this field.

**Figure 41**

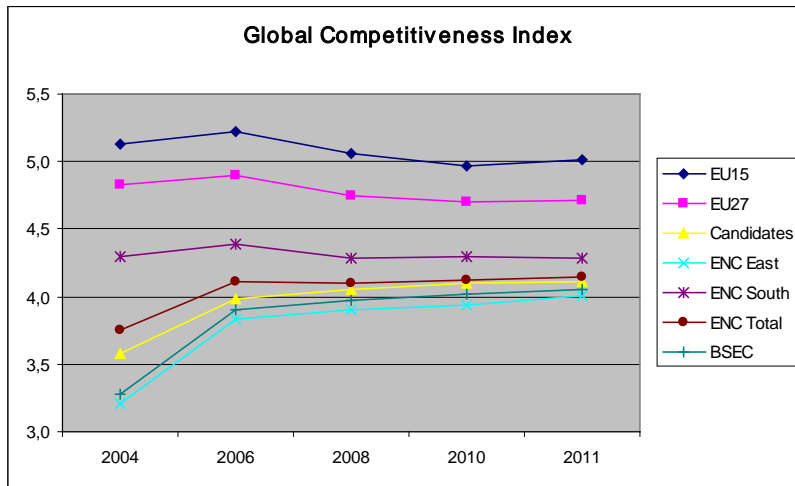


### 5.5 Quality of Institutions and Global Competitiveness

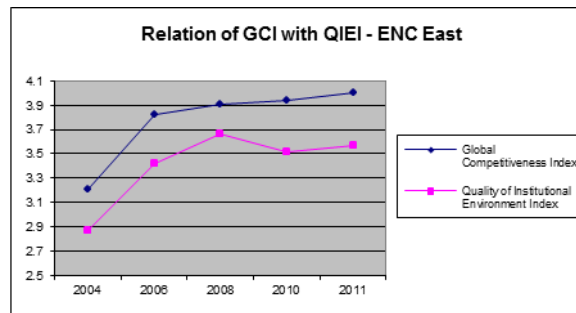
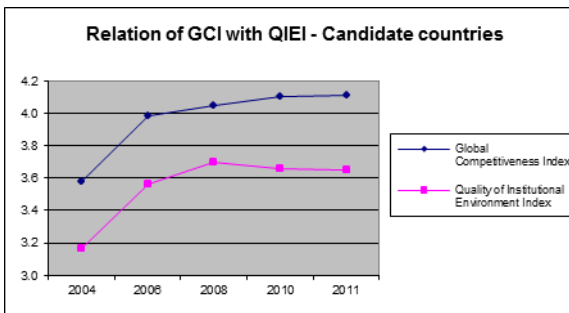
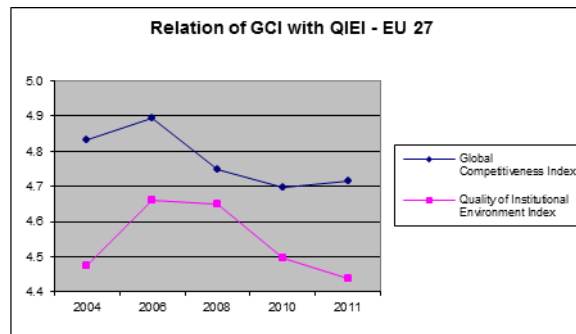
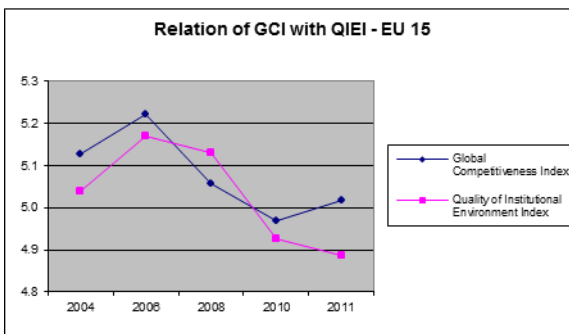
The Global Competitiveness Reports of the World Economic Forum base their analysis on a complex indicator, the Global Competitiveness Index (GCI), which captures the microeconomic and macroeconomic foundations of national competitiveness. The measurement of this index involves a large number of key components that altogether synthesize the productivity level of an economy. Institutional quality is certainly one of the main factors that determine a country’s competitiveness. Institutions influence investment decisions, development strategies and legal frameworks and determine business operation and attitudes towards markets.

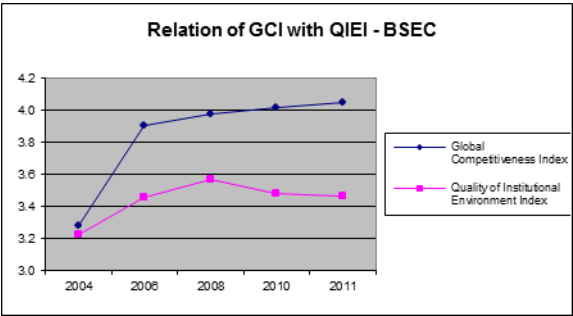
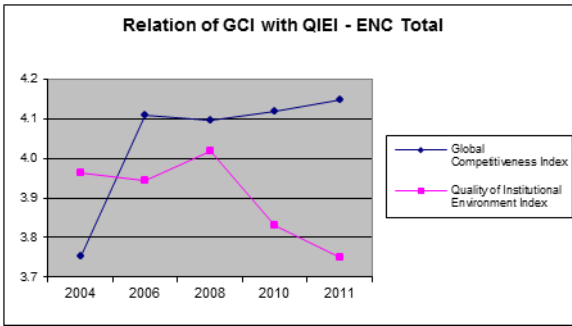
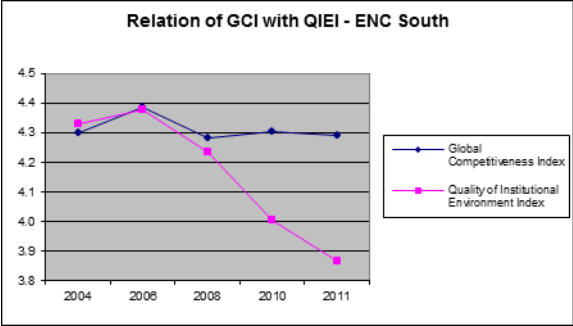
Taking as a starting point the national scores of GCI, we were able to calculate the average scores of the seven groups of countries for the time period 2004-2011. The evolution of global competitiveness trends are illustrated in the following diagram. From a first comparison of the following figure 42 with figure 8 (Index of Institutional Quality), we can simply stress that these 2 diagrams have no significant differences. On the contrary, the trends of global competitiveness and institutional quality for all seven groups over time are practically the same. Therefore, it is safe to conclude that these two indexes are interconnected, although their relation is not only casual (since the institutional quality index is a component of the GCI).

**Figure 42**



It is also interesting to examine the relation of these two indexes and their trends over time, in the seven groups of countries separately. As it is shown below, it is obvious that there is an interrelation between these two trends and usually the average scores of GCI are higher than the respective scores of institutional quality (both measurements have been made in the same scale from 1: worse to 7: best).





## 6. CONCLUSIONS

Comparing the quality of institutions and their influence to economic development among countries or groups of countries and the trends of change in a certain limited period, was the main task of this paper. Leaving aside the difficulties and limitations being raised in the academic discussions concerning the theoretical and methodological problems of measuring the quality of institutions and their contribution to economic growth, we find useful and relevant for cross-national comparisons to use indicators and available data based on WEF (Executive Survey Indicators for Global Competitiveness Index Report).

Based on three strands of theoretical approaches (neo-institutionalist, Europeanization and Governance approach) we formulated three main hypotheses, which have been tested empirically using a composite indicator and 18 selected indicators, classified in four pillars of institutional quality: government effectiveness, regulatory quality, rule of law and control of corruption.

Overall the analysis has shown (similarly with other former studies), that upgrading the institutional quality of a country affects positively its economic development (positive relation between Global Competitiveness Index and the Quality of Institutional Environment Index in all groups of countries). Of course, it should be acknowledged that a country's competitiveness is not only dependent on the institutional quality factor. On the contrary, it is influenced by a series of dynamics, and therefore, their relation is not always proportional.

Focusing on the macro level (average scores of the different groups of countries), Europeanization process shows incremental progress in the quality of national institutional environments and in the global competitiveness of the countries. The adoption of "European acquis", either through legal compliance of the regulative and legislative framework, or through "voluntary" domestic policies in the framework of new Governance arrangements (Open Method of Coordination, "White Paper of Governance") has certainly improved the institutional quality and its positive impact on economic development in EU and neighboring countries.

However, important differences have been also detected, concerning the trends of convergence and divergence among countries and groups of countries. These trends change also across time. Thus in the period of "Enlargement euphoria", until 2006, candidate countries being under strong Europeanization pressure improve their institutional quality converging to the EU 15 average, while after 2006 stagnation is evident.

Even among the core EU 15 countries, divergences are detected. The southern European countries, such as Greece, Italy, Portugal and Spain diverge after 2006 from the EU 15 average, demonstrating a



deterioration of their institutional quality, while northern countries are above the EU 15 average (north-south division). Similar divergent trends among countries have been detected in the other groups of countries as well, e.g. new Baltic countries moving upwards converging to the EU 15.

Every country has its “significant” trajectory of institutional performance. Except Europeanization, other factors that play an important role appear to be global financial crisis 2007/8, public debt crisis of the European Southern countries 2008 until today and domestic institutional governance reforms. Different waves and velocities of Europeanization alongside with external and internal driving forces influence the significant path of institutional quality of each country. Divergent processes of Europeanization in different countries or groups of countries reflect the “Goodness of Fit” or “Misfit”, along with the responses of domestic structures and actors to European and global driving forces.

It should be mentioned that even in cases of improvement of institutional quality, complying with the formal convergence criteria, the detailed analysis of the four pillars and the 18 indicators has shown important differentiations concerning the government effectiveness, regulatory quality, rule of law and control of corruption. The legal compliance and adoption of formal criteria has to be complemented with effective implementation of policies, employing more legitimate governance arrangements.

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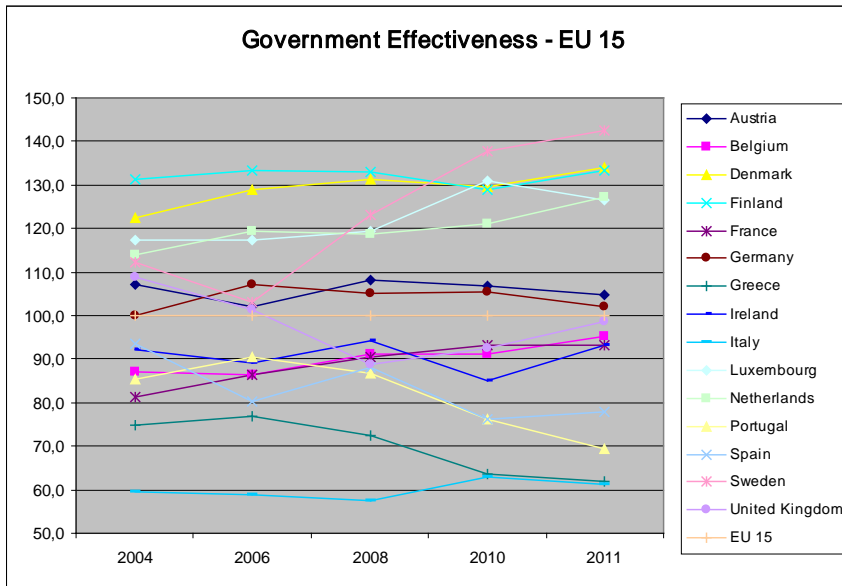
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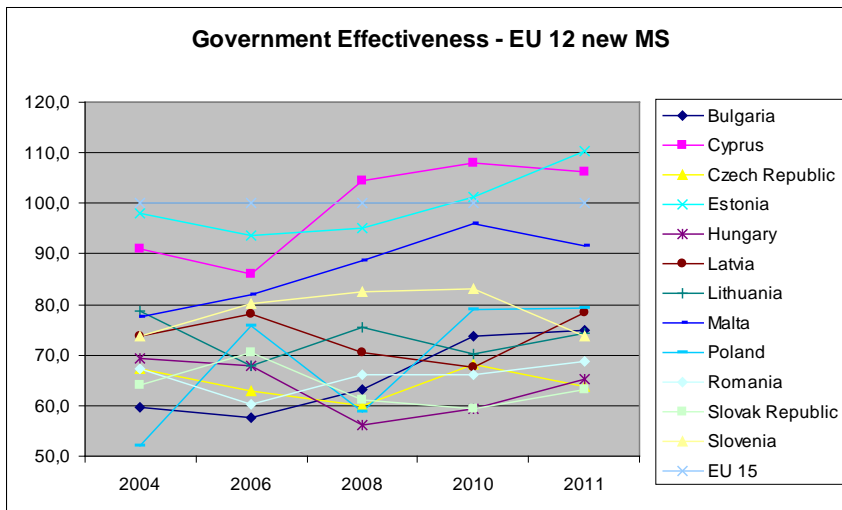
# **ANNEX I**

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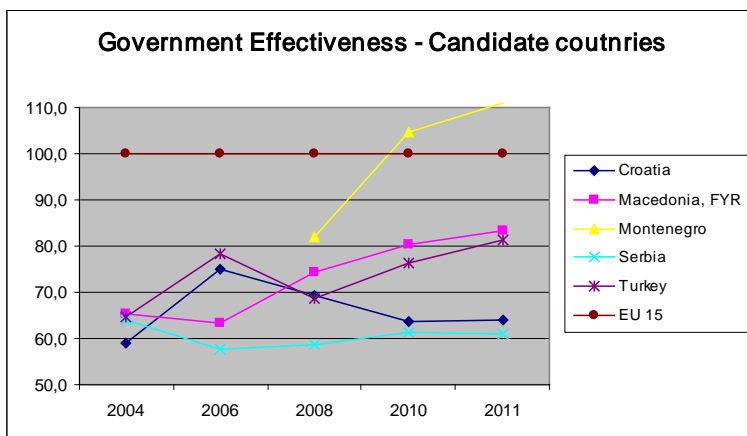
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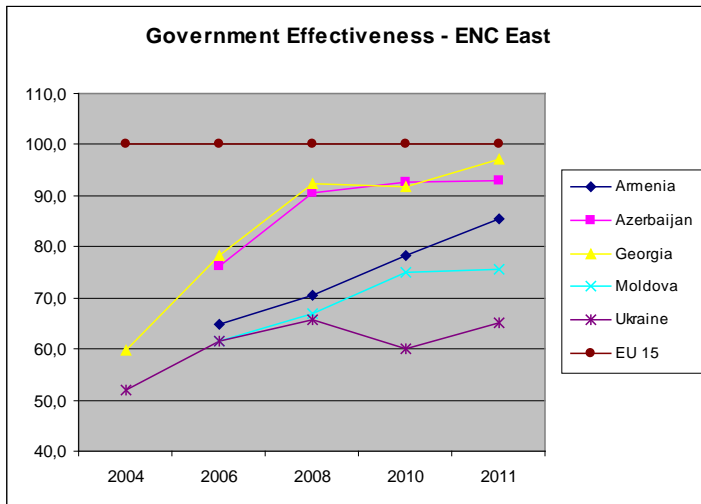
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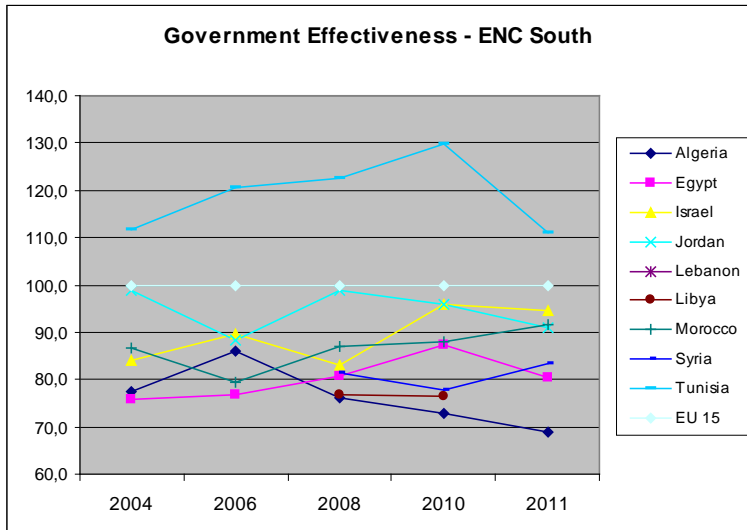
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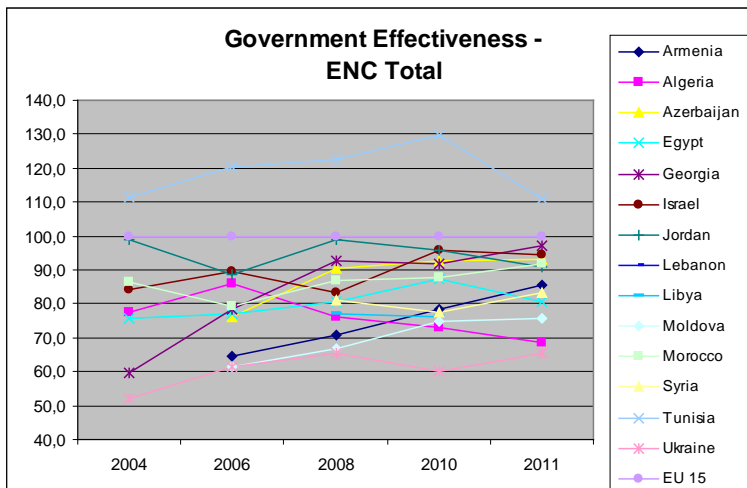
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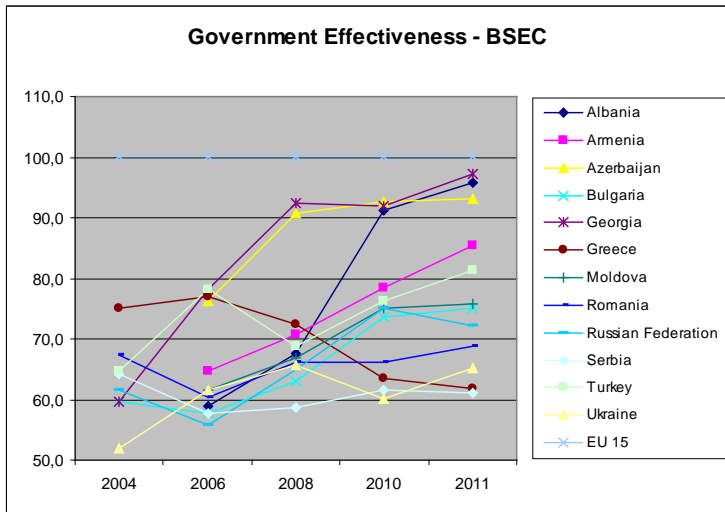
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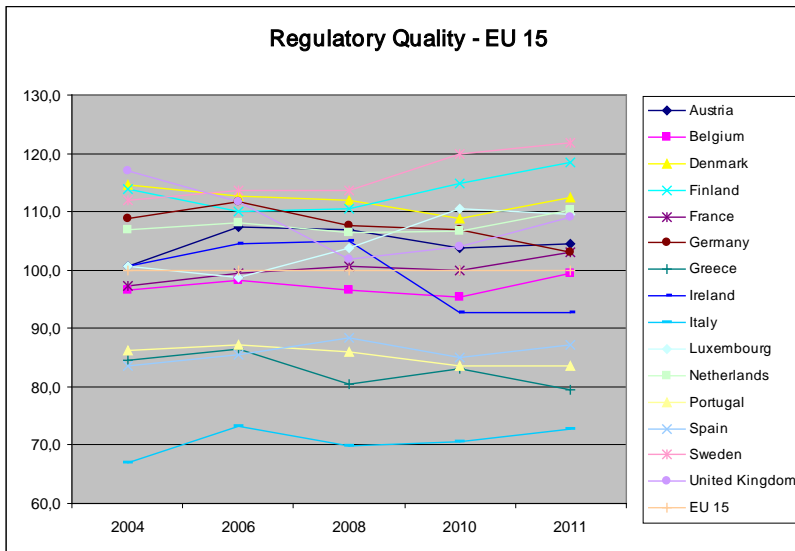
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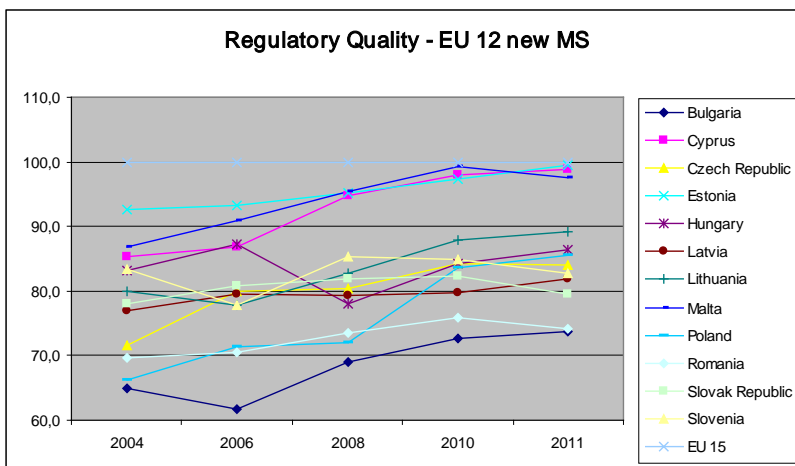
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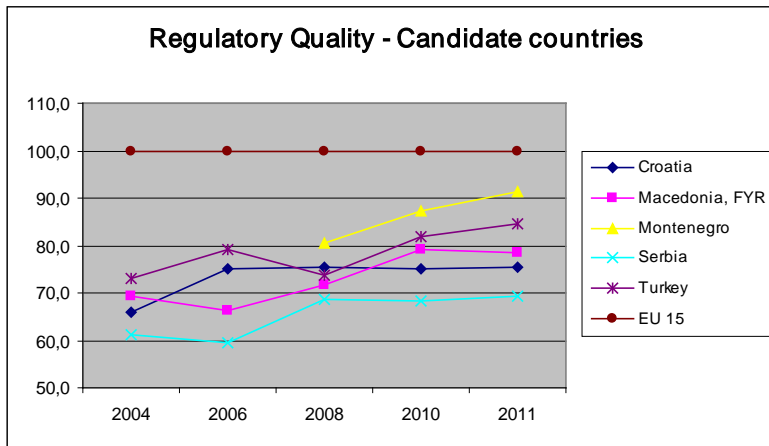
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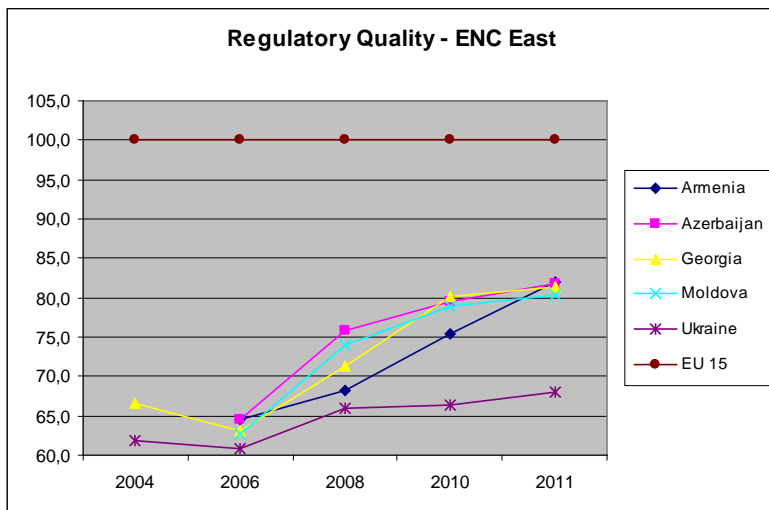
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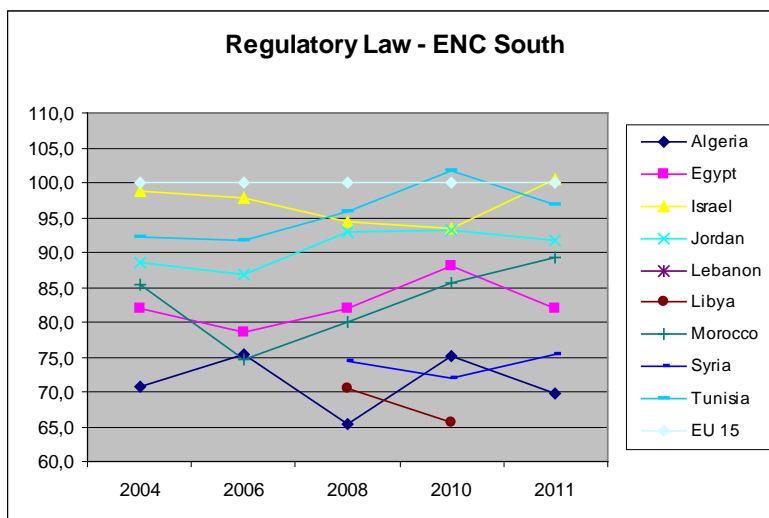
**Figure 20**



**Figure 21**

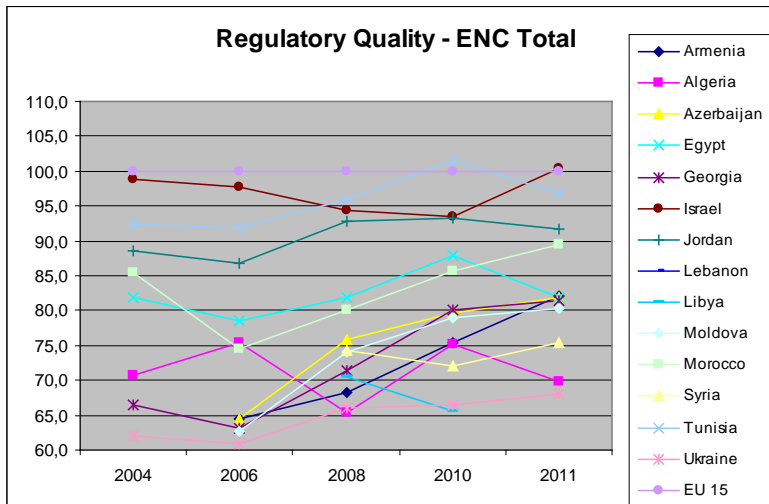


**Figure 22**





**Figure 23**



**Figure 24**

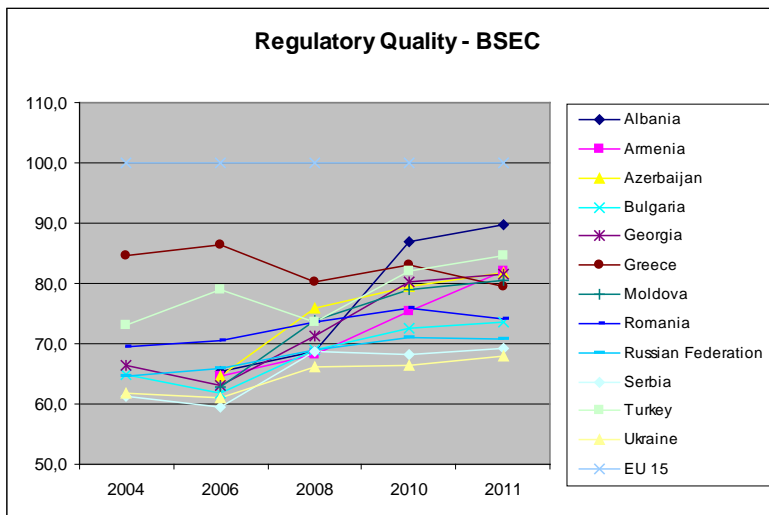
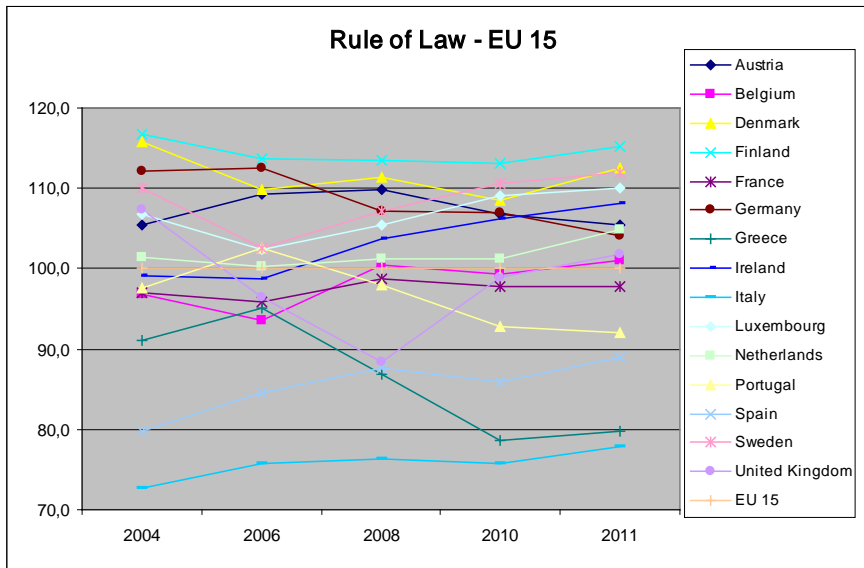
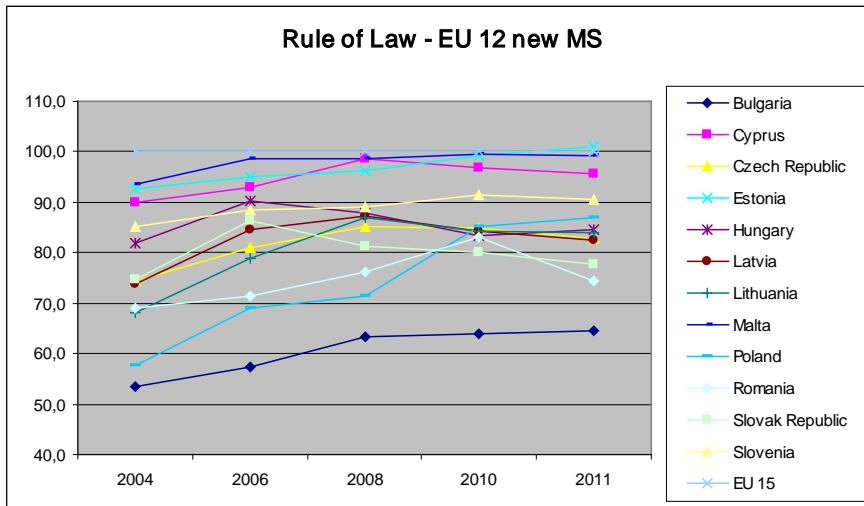


Figure 26



**Figure 27**



**Figure 28**

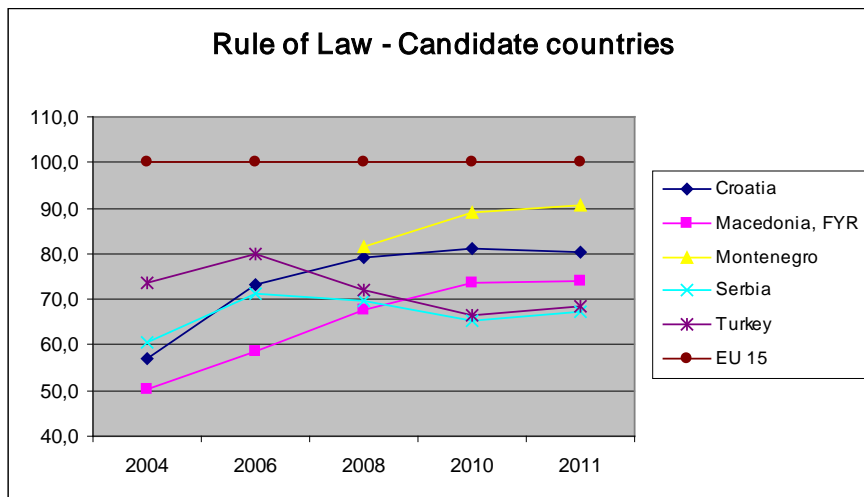
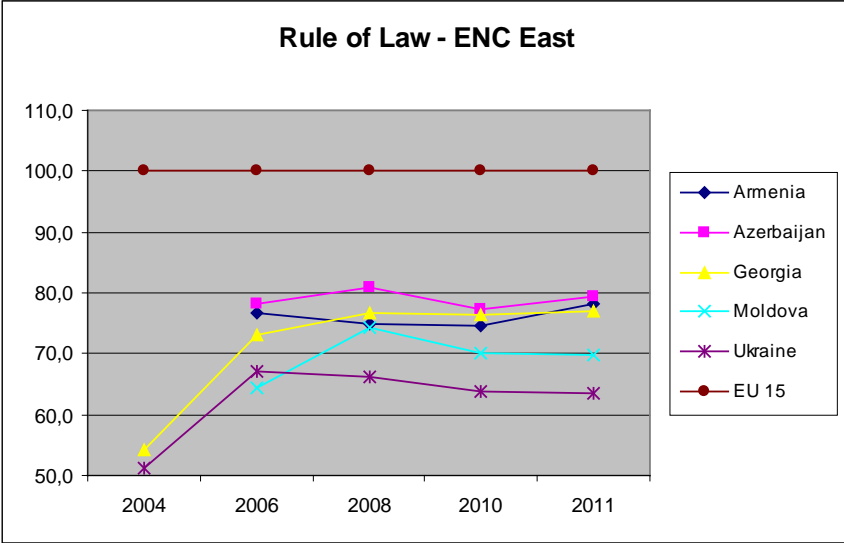
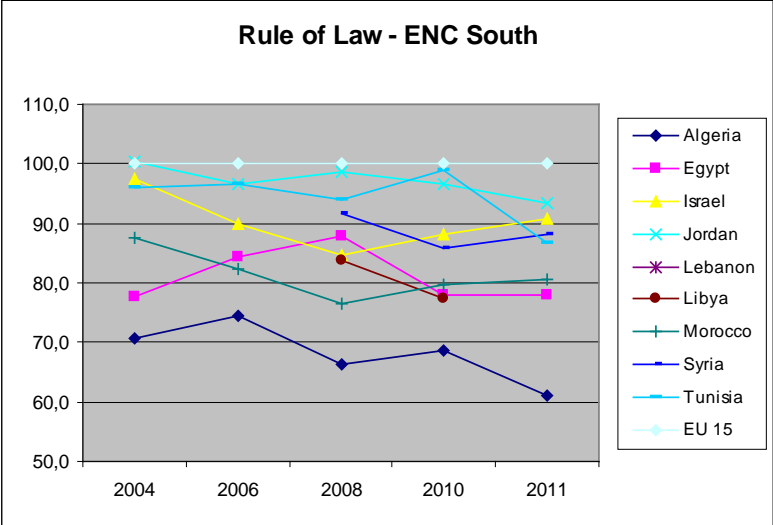


Figure 29



**Figure 30**



**Figure 31**

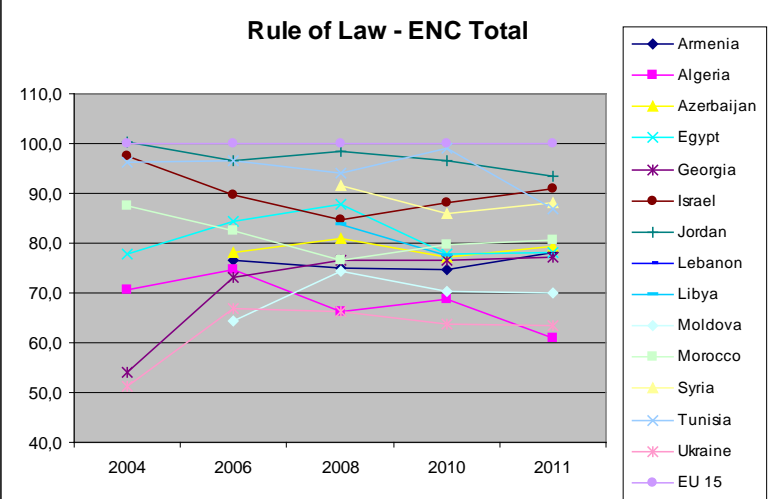
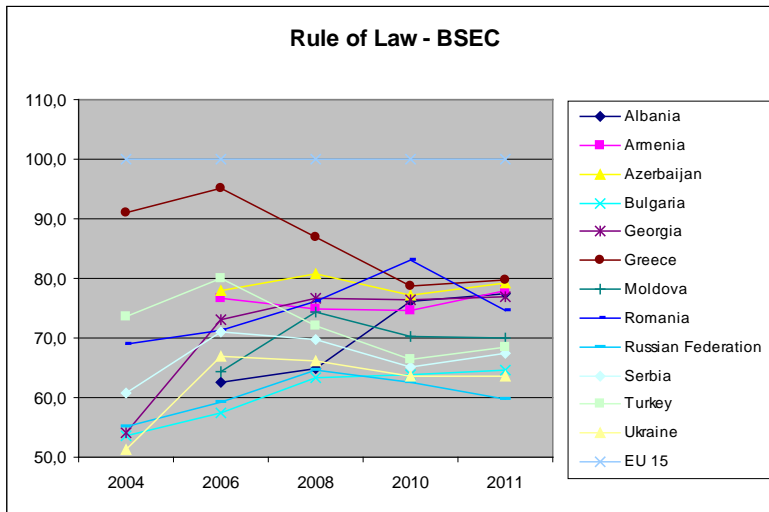
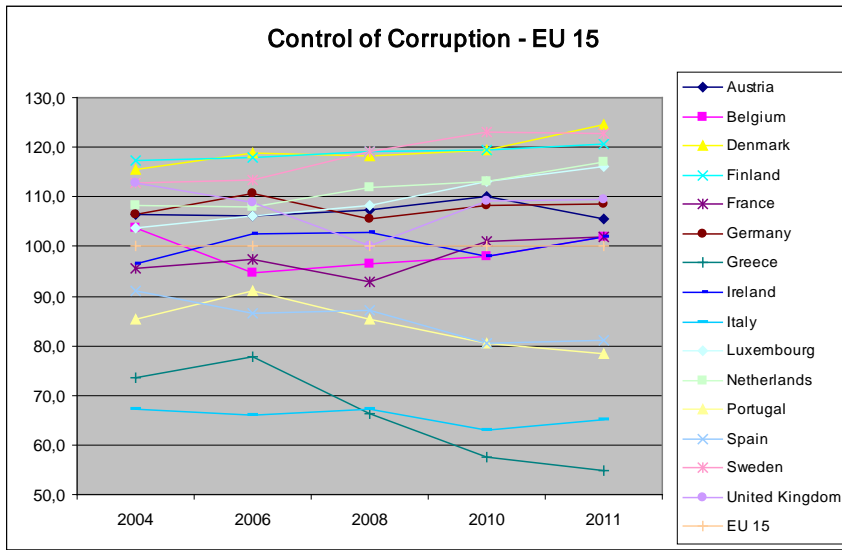


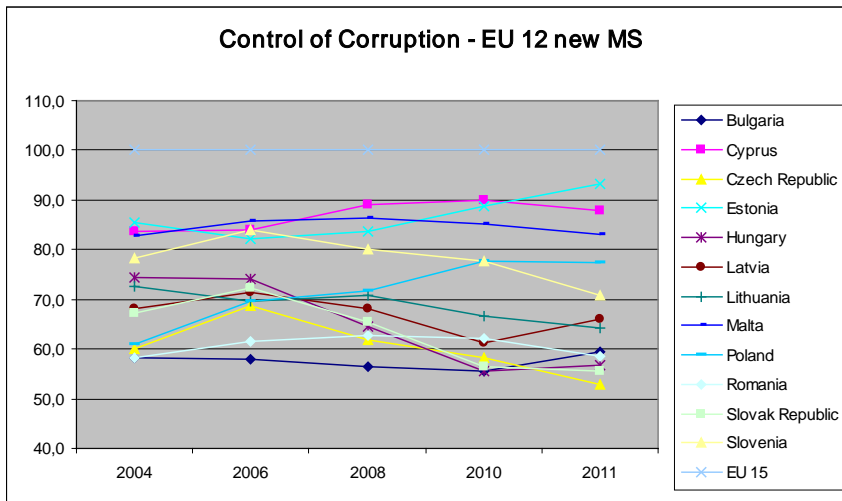
Figure 32



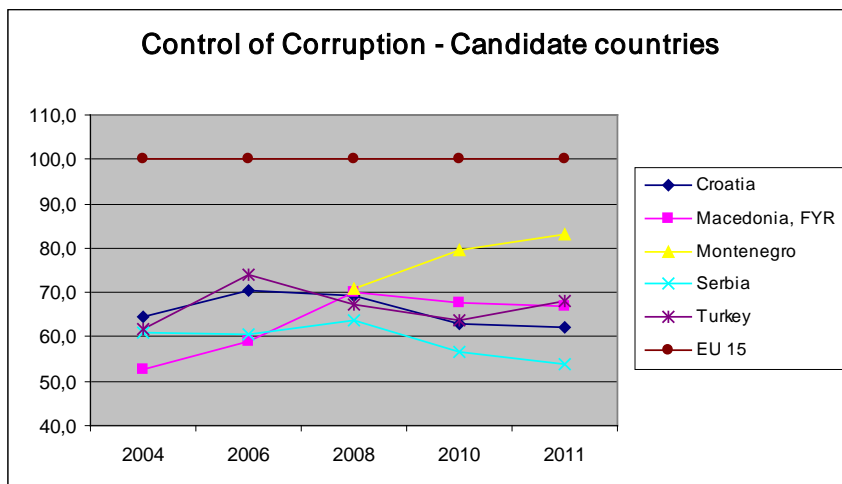
**Figure 34**



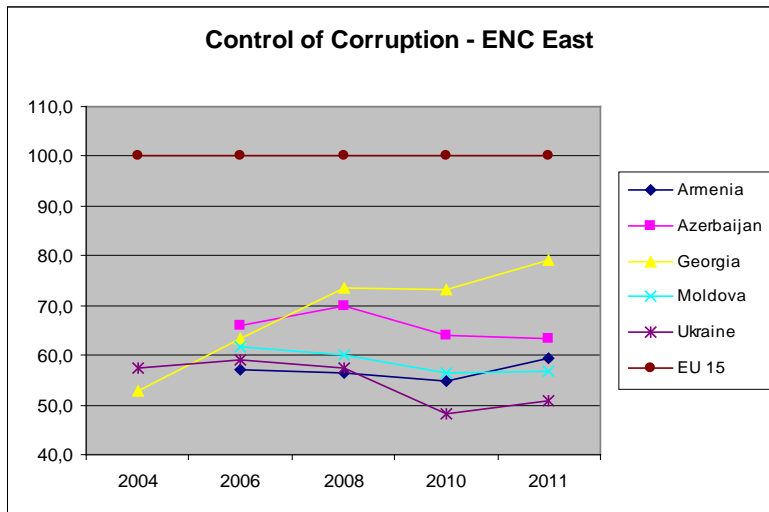
**Figure 35**



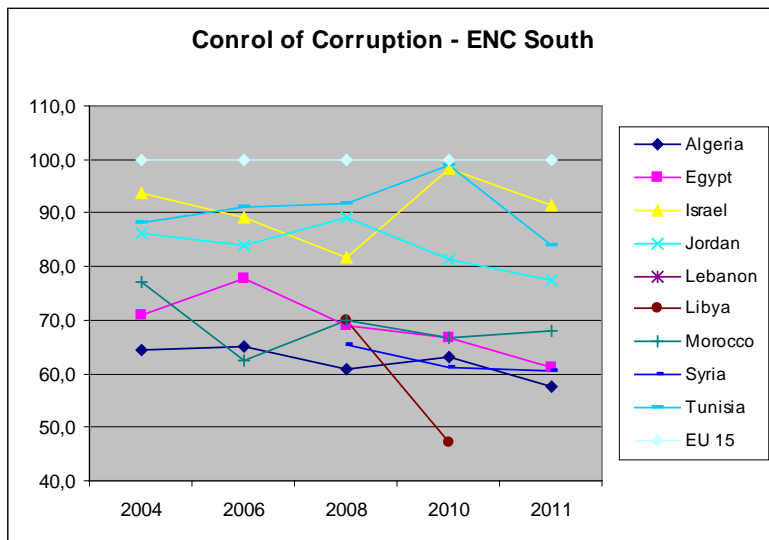
**Figure 36**



**Figure 37**

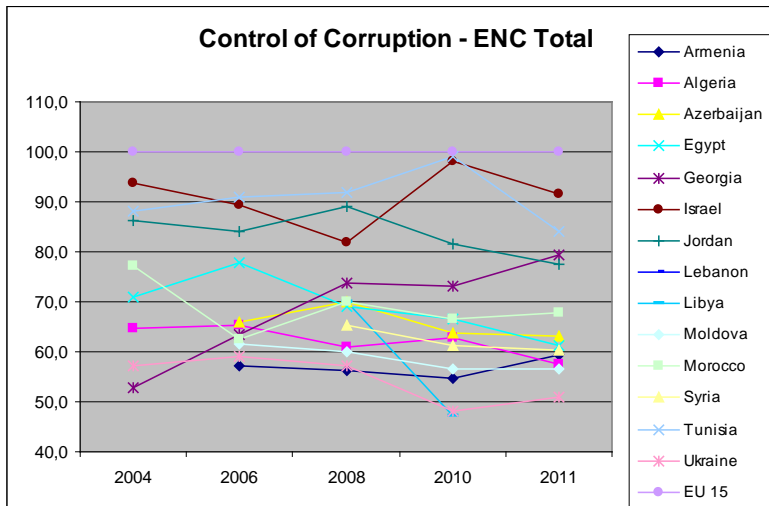


**Figure 38**

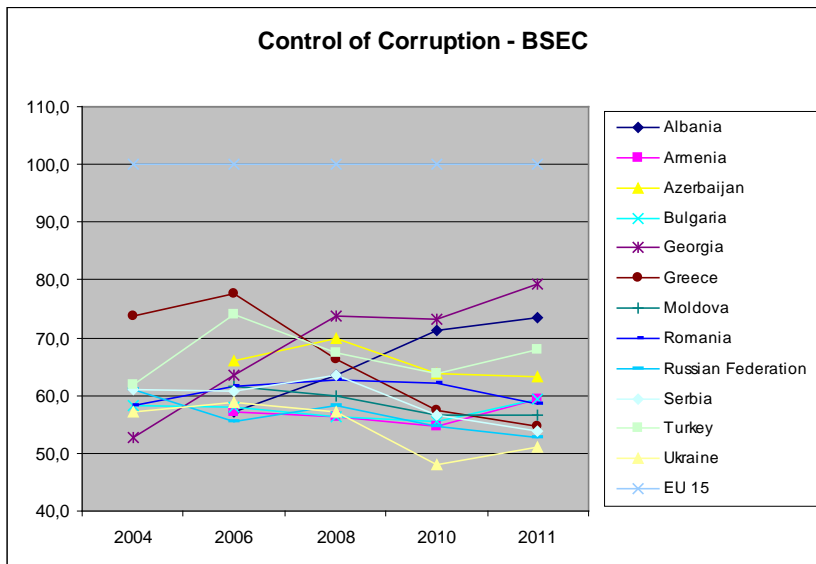




**Figure 39**



**Figure 40**



# Governance in the European Union and Neighbouring Countries

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## **Abstract**

This exploratory study examines the level of governance quality the EU-countries and neighbouring countries. The analysis is based on the concept of governance quality distinguishing six different aspects and data from the Worldwide Governance Indicators were used. For generalisation, mean values of six indicators were calculated and a factor of overall governance quality was created with the help of factor analysis. In general, the governance quality in neighbouring countries seems to have an influence on country's state of governance and the level of governance quality does not change very quickly.

## **Keywords**

Institutional quality, Governance, Europe

## **JEL Classification**

H11, K00



## 1. INTRODUCTION

Governance and its quality have been viewed as more and more important in literature, especially in developing countries for economic development. North (1990) has convincingly shown the importance of a country's system of governance for economic growth. It is natural to expect economic cooperation in geographically close regions, including foreign investments, for example. At that, considering the competition to attract foreign investments, the governance quality plays an important role. Although geographically close to each-other, the countries in European Union (EU) and its neighbouring countries differ significantly from each-other according to cultural and historical background and environment. Thus, quality of governance in these countries may also differ significantly.

The purpose of this report is to examine the level of governance quality the EU-countries and neighbouring countries. The analysis covers all 27 EU countries and 27 neighbouring countries: Norway, Iceland, Switzerland, Albania, Bosnia-Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, Moldova, Belarus, Russia, Ukraine, Armenia, Azerbaijan, Georgia, Cyprus, Turkey, Israel, Jordan, Lebanon, Syria, Egypt, Libya, Tunisia, Algeria, Morocco. This report is based on the concept of Kaufmann et al (2010) that looks at the governance quality using six different measures. Data from the latest edition of the Worldwide Governance Indicators (WGI) dataset (Kaufmann et al., 2011) are used. Besides looking at the six indicators separately, the mean values of six indicators are calculated and a latent factor is composed with the help of confirmatory factor analysis that captures all the information about the governance quality into one indicator, enabling a simple comparison of countries according to governance quality.

The paper is structured as follows. The next section presents the theoretical background and after that data are introduced. Then, initial and derived governance indicators in the EU and neighbouring countries are presented and discussed. Last, conclusions are drawn.

## 2. THEORETICAL BACKGROUND

Although there is a wide interest in governance, there is not yet a strong consensus about the definition of governance. Kaufmann et al. (2010) or UNPAN (2007), for example provide overviews of different definitions. Generally, governance refers to the formal and informal arrangements that determine public decisions and actions. Broader definitions cover rules, enforcement mechanisms and organizations, while narrower definition focus on the manner in which public sector is managed. This report is based on the notation of Kaufmann et al. (2010) that seeks to find a compromise between different dimensions and define **governance** as the traditions and institutions by which authority in a country is exercised. Their concept includes three aspects: "the process by which governments are

selected, monitored and replaced”; “the capacity of the government to effectively formulate and implement sound policies”; and “the respect of citizens and the state for the institutions that govern economic and social interactions among them.”

Kaufmann et al. (2010) have constructed six measures of governance, two for every aspect. The processes of selecting, monitoring and replacing governments are first measured by **Voice and Accountability (VA)** that captures perceptions of the extent to which “a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media”. The second measure is **Political Stability and Absence of Violence/Terrorism (PV)** that reflects perceptions of the likelihood that “the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.” The capacity of the government is described, first with the help of **Government Effectiveness (GE)** that shows perceptions of “the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies”. Also, **Regulatory Quality (RQ)** is used as an indicator of perceptions of “the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.” The respect for the institutions are reflected by two measures as well: first, **Rule of Law (RL)** captures perceptions of the extent to which “agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence” and second, **Control of Corruption (CC)** covers perceptions of the extent to which “public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.”

These six measures are not expected to be uncorrelated, as for example, more effective government leads to better regulatory quality, the respect for the rule of law leads to less corruption and so on. Hence, all six measures can be viewed as different aspects of overall governance quality.

### **3. DATA**

The data about governance quality for all 27 EU countries and 27 neighbouring countries were drawn from the Worldwide Governance Indicators (WGI) (Kaufmann et al., 2011). The WGI is a dataset that reports aggregate governance indicators for 213 economies over the period 1996–2010, for six dimensions of governance (data are updated on a yearly basis). The aggregate indicators combine the views of a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. The WGI are based on a large number of different data sources, capturing the views and experiences of survey respondents and experts in the public and private sectors, as well as various NGOs (Kaufmann et al., 2011). Each one of the six aggregate WGI measures is then constructed as a weighted average of the rescaled data from the individual sources. A full description of the individual variables used in the WGI and how they are assigned to the six aggregate indicators is available at Kaufmann et al. (2011). All indicators ranged from approximately -2.5 (weak) to 2.5 (strong) governance performance), but in order to provide a better comparability, the indicators were standardised to an average of zero and standard deviation of one.

In addition, in order to evaluate the overall governance quality in the countries analysed, two approaches were used. First, the mean values of six measures were calculated. Second, in order to capture the information of initial measures into one indicator, a factor analysis (the principal components method) was performed. The results of the factor analysis are presented in Appendix Table A1. All six measures loaded into one factor, the percentages of total variance explained by the factors is 88.72% and the Kaiser-Meyer-Olkin (KMO) measure (0.89) indicates a very good appropriateness of the factor model (values of the KMO measure larger than 0.5 are usually considered as acceptable). The factor scores of the latent variable were saved as a variable reflecting the overall governance quality.

### **4. GOVERNANCE INDICATORS IN THE EUROPEAN UNION AND NEIGHBOURING COUNTRIES**

The six measures of governance for the EU countries are presented in Table 1 and for the neighbouring countries in Table 2. Both the mean values of initial indicators and the factor scores are also presented in Tables 1 and 2. It can be seen from both Tables that the ranking of countries does not depend on whether the mean values of six measures of governance or the factor scores reflecting overall governance quality are taken into account.

Table 1 indicates that governance quality is very high in Finland, Denmark and Sweden, where also the levels of social capital are the highest. Table 1 also shows that in general, the countries with the

communist background tend to have much lower levels of governance quality than the so-called old western economies. Among the EU countries, control of corruption is the measure that varies in widest interval. While most indicators stay above the average of all countries analysed here, the control of corruption measure has negative values for many countries. In Spain and Greece also the perceptions of political stability are remarkably low. In Bulgaria and Romania, the problems with government effectiveness and rule of law should be pointed out in addition to the corruption problems.

**Table 1. Indicators of governance, their mean values and the factor of overall governance quality for the EU countries (2010, ordered according to overall governance quality)**

	VA	PV	GE	RQ	RL	CC	Mean	Factor
Finland	1.10	1.47	1.75	1.38	1.49	1.65	1.47	1.56
Denmark	1.15	1.00	1.67	1.46	1.39	1.86	1.42	1.52
Sweden	1.15	1.09	1.51	1.25	1.47	1.75	1.37	1.46
Luxembourg	1.13	1.54	1.18	1.21	1.34	1.56	1.33	1.40
Netherlands	1.06	0.91	1.21	1.33	1.32	1.65	1.25	1.33
Austria	1.01	1.10	1.37	1.01	1.31	1.17	1.16	1.23
Ireland	0.90	0.99	0.77	1.16	1.27	1.19	1.05	1.11
Germany	0.91	0.75	1.02	1.07	1.13	1.22	1.02	1.09
United Kingdom	0.88	0.24	1.03	1.28	1.28	1.01	0.95	1.03
Belgium	0.99	0.73	1.06	0.75	0.89	1.03	0.91	0.97
France	0.79	0.61	0.90	0.79	1.02	0.93	0.84	0.90
Malta	0.71	1.17	0.60	0.89	0.98	0.48	0.81	0.84
Cyprus	0.63	0.24	0.96	0.83	0.67	0.62	0.66	0.71
Estonia	0.69	0.53	0.67	0.92	0.63	0.47	0.65	0.69
Portugal	0.69	0.59	0.48	0.18	0.52	0.58	0.50	0.53
Czech Republic	0.59	0.96	0.45	0.67	0.43	-0.11	0.50	0.51
Slovenia	0.58	0.76	0.47	0.10	0.50	0.40	0.47	0.49
Spain	0.71	-0.50	0.42	0.62	0.68	0.56	0.41	0.46
Poland	0.60	0.99	0.13	0.36	0.15	0.02	0.37	0.38
Slovakia	0.46	1.02	0.28	0.45	0.04	-0.14	0.35	0.35
Hungary	0.48	0.62	0.11	0.46	0.24	-0.09	0.30	0.31
Lithuania	0.47	0.57	0.14	0.36	0.22	-0.10	0.28	0.29
Latvia	0.38	0.33	0.12	0.36	0.28	-0.21	0.21	0.22
Italy	0.49	0.32	-0.08	0.21	-0.17	-0.45	0.06	0.05
Greece	0.47	-0.42	-0.07	-0.02	0.07	-0.52	-0.08	-0.08

Bulgaria	0.05	0.20	-0.61	-0.08	-0.66	-0.58	-0.28	-0.31
Romania	0.02	0.05	-0.77	-0.01	-0.52	-0.56	-0.30	-0.33

Among the neighbouring countries that are described by the indicators in Table 2, first, it can be seen that here the three old western economies (Switzerland, Norway and Iceland) again stand out, although in the case of Iceland a quite low level of regulatory quality has to be pointed out. Besides that, no further lines based on geographical or historical background can be drawn. It can be only noted that the North-African countries analysed all belong to the countries with lower governance quality among neighbouring countries. In Israel, political stability is extremely low compared to other indicators. Political stability seems to be the greatest problem in Georgia, Turkey and Lebanon as well. At the same time, in two countries with the lowest overall governance quality, Belarus and Libya, political stability seems to be remarkably good compared to other aspects. In Tunisia, the biggest problem seems to be related with voice and accountability.

**Table 2. Indicators of governance, their mean values and the factor of overall governance quality for the neighbouring countries (2010, ordered according to overall governance quality)**

	VA	PV	GE	RQ	RL	CC	Mean	Factor
Switzerland	1.18	1.25	1.40	1.16	1.29	1.56	1.31	1.39
Norway	1.18	1.35	1.28	0.96	1.44	1.57	1.30	1.38
Iceland	0.96	1.00	1.05	0.28	1.20	1.43	0.99	1.05
Israel	0.19	-2.15	0.69	0.65	0.35	0.20	-0.01	0.05
Croatia	0.01	0.49	0.03	-0.13	-0.38	-0.36	-0.06	-0.07
Montenegro	-0.23	0.36	-0.54	-0.87	-0.59	-0.72	-0.43	-0.48
Georgia	-0.60	-1.13	-0.31	-0.11	-0.79	-0.56	-0.58	-0.61
Turkey	-0.59	-1.53	-0.25	-0.34	-0.46	-0.40	-0.60	-0.61
Jordan	-1.26	-0.61	-0.54	-0.51	-0.34	-0.37	-0.60	-0.64
Macedonia	-0.34	-0.87	-0.81	-0.46	-0.88	-0.46	-0.64	-0.67
Serbia	-0.14	-0.79	-0.74	-0.82	-0.98	-0.61	-0.68	-0.72
Albania	-0.33	-0.51	-0.91	-0.53	-1.03	-0.82	-0.69	-0.74
Tunisia	-1.77	-0.15	-0.41	-0.81	-0.45	-0.53	-0.69	-0.74
Armenia	-1.28	-0.24	-0.78	-0.47	-1.06	-1.05	-0.81	-0.88
Morocco	-1.20	-0.93	-0.80	-0.93	-0.77	-0.56	-0.86	-0.91
Bosnia-Herzegovina	-0.55	-1.11	-1.40	-0.91	-0.95	-0.71	-0.94	-0.99
Moldova	-0.50	-0.80	-1.28	-0.94	-0.99	-1.10	-0.94	-1.00
Kosovo	-0.60	-1.73	-1.25	-0.85	-1.24	-1.02	-1.12	-1.17



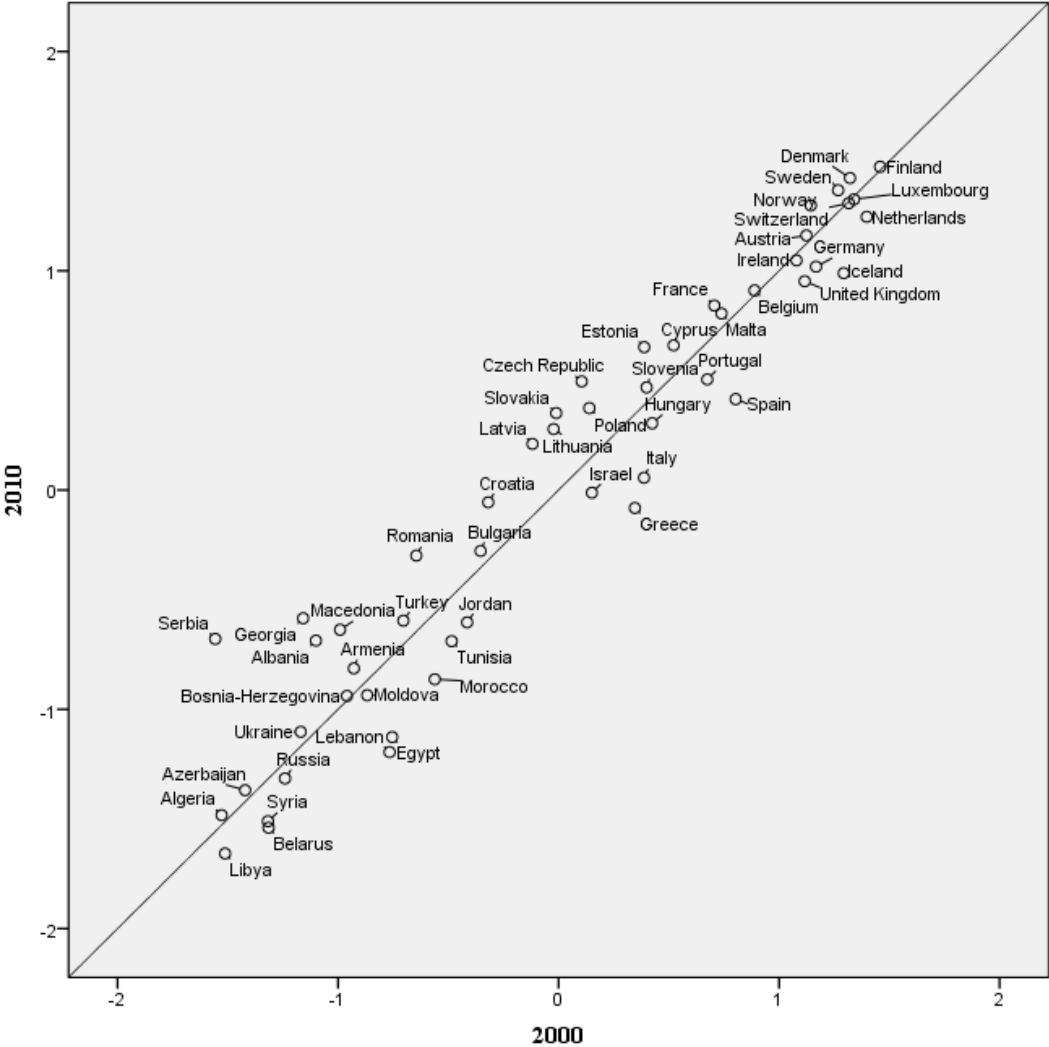
Egypt	-1.63	-1.42	-1.08	-1.01	-0.69	-0.94	-1.13	-1.18
Ukraine	-0.58	-0.40	-1.44	-1.45	-1.41	-1.33	-1.10	-1.19
Lebanon	-0.76	-2.20	-0.98	-0.75	-1.27	-1.21	-1.20	-1.24
Russia	-1.37	-1.39	-1.04	-1.27	-1.39	-1.43	-1.32	-1.39
Azerbaijan	-1.70	-0.66	-1.51	-1.32	-1.50	-1.53	-1.37	-1.47
Algeria	-1.44	-1.85	-1.21	-2.16	-1.37	-0.87	-1.48	-1.56
Syria	-2.10	-1.30	-1.20	-1.91	-1.14	-1.41	-1.51	-1.60
Belarus	-1.98	-0.41	-1.82	-2.18	-1.67	-1.19	-1.54	-1.66
Libya	-2.34	-0.35	-1.90	-2.16	-1.59	-1.61	-1.66	-1.79

Further investigation of Tables 1 and 2 indicates that the governance quality in neighbouring countries seem to have an influence on country's state of governance. The level of overall governance quality is quite similar in geographically close countries and there are no large differences between neighbouring countries, except for Syria that has much lower governance quality than its neighbouring countries.

When studying governance quality indicators by country groups based on geographical and political background, following conclusions can be made (the information about the country groups and their means can be found in Appendix Table A2). North-European countries have highest governance quality, followed by the other old western economies, but among them South-European countries have contrastingly even lower levels of governance quality. After that, Central- and East-European countries follow and among them, those who already belong to the EU tend to have higher levels of governance quality. The communist background seems to have a strong influence, as those countries (except for Baltic countries that are also already in EU) that belonged to the former Soviet Union, have the lowest levels of governance quality. Among the countries of Middle East, the governance quality in North-African countries is, unfortunately comparable to the countries that belonged to the former Soviet Union. Other Middle-Eastern countries have somewhat higher levels of governance quality.

Although it can be assumed that governance quality does not change very quickly, still some changes can be expected, for example after a decade. This can be examined with the help of Figure 1, where the mean values of standardised measures of governance for the years 2000 and 2010 are compared (same scale for both years). It can be seen that in general, governance quality, indeed, does not change much. The largest positive changes have been in Serbia and Georgia, but in many Central-and East-European countries now in the EU, the governance quality has clearly improved as well. At the same time, in Greece, Italy, Spain, Morocco, Egypt and Lebanon overall governance quality has declined most.

**Figure 1.** Positions of countries across the mean value of six measures of governance across years 2010 and 2000 (in countries above the diagonal overall governance quality has improved and in countries below the diagonal it has declined)



**5. CONCLUSIONS**

This report explored the level of governance quality in 27 EU-countries and 27 neighbouring countries. The report is based on the concept of governance quality covering six different measures: Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. Besides looking at these six indicators separately, the mean values of these six indicators were calculated and also a latent factor was created in order to capture the information of initial measures into one indicator with the help of factor analysis.

Investigating the initial and derived indicators showed that in general, the countries with the communist background tend to have much lower levels of governance quality than the so-called old western economies. Among the latter, North-European countries have the highest and South-European countries the lowest governance quality. Among the neighbouring countries, besides the three old western economies, no further lines based on geographical or historical background can be drawn. If the mean values of country groups are considered, it can be said that the communist background seems to have a strong influence, as those countries (except for Baltic countries that are also already in EU) that belonged to the former Soviet Union, have the lowest levels of governance quality. Among the countries of Middle East, the governance quality in North-African countries is, unfortunately comparable to the countries that belonged to the former Soviet Union.

The ranking of countries appeared not to depend on whether the mean values of six measures of governance or the factor scores reflecting overall governance quality are taken into account. In general, the governance quality in neighbouring countries seems to have an influence on country's state of governance: the level of overall governance quality is quite similar in geographically close countries. Comparing the data from 2010 with the data from 2000 showed that governance quality, indeed, does not change much, although some more remarkable positive and negative changes were pointed out.

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## Appendix

**Table A1. Results of the factor analysis of governance measures**

Indicators	Factor loadings
Voice and Accountability (VA)	0.94
Political Stability and Absence of Violence/Terrorism (PV)	0.82
Government Effectiveness (GE)	0.98
Regulatory Quality (RQ)	0.96
Rule of Law (RL)	0.98
Control of Corruption (CC)	0.96
Variance explained (%)	88.72%
KMO Measure of Sampling Adequacy	0.89

**Table A2. Indicators of governance, their mean values and the factor of overall governance quality for the neighbouring countries by country groups (2010, ordered according to overall governance quality)**

	VA	PV	GE	RQ	RL	CC	Mean	Factor
<i>North-European countries:</i>								
Denmark	1.15	1.00	1.67	1.46	1.39	1.86	1.42	1.52
Finland	1.10	1.47	1.75	1.38	1.49	1.65	1.47	1.56
Iceland	0.96	1.00	1.05	0.28	1.20	1.43	0.99	1.05
Norway	1.18	1.35	1.28	0.96	1.44	1.57	1.30	1.38
Sweden	1.15	1.09	1.51	1.25	1.47	1.75	1.37	1.46
<b>Mean</b>	<b>1.11</b>	<b>1.18</b>	<b>1.45</b>	<b>1.07</b>	<b>1.40</b>	<b>1.65</b>	<b>1.31</b>	<b>1.39</b>
<i>West-European countries:</i>								
Austria	1.01	1.10	1.37	1.01	1.31	1.17	1.16	1.23
Belgium	0.99	0.73	1.06	0.75	0.89	1.03	0.91	0.97
France	0.79	0.61	0.90	0.79	1.02	0.93	0.84	0.90
Germany	0.91	0.75	1.02	1.07	1.13	1.22	1.02	1.09
Ireland	0.90	0.99	0.77	1.16	1.27	1.19	1.05	1.11
Luxembourg	1.13	1.54	1.18	1.21	1.34	1.56	1.33	1.40
Netherlands	1.06	0.91	1.21	1.33	1.32	1.65	1.25	1.33

Switzerland	1.18	1.25	1.40	1.16	1.29	1.56	1.31	1.39
United Kingdom	0.88	0.24	1.03	1.28	1.28	1.01	0.95	1.03
<b>Mean</b>	<b>0.98</b>	<b>0.90</b>	<b>1.11</b>	<b>1.09</b>	<b>1.21</b>	<b>1.26</b>	<b>1.09</b>	<b>1.16</b>
<i>South-European countries:</i>								
Cyprus	0.63	0.24	0.96	0.83	0.67	0.62	0.66	0.71
Greece	0.47	-0.42	-0.07	-0.02	0.07	-0.52	-0.08	-0.08
Italy	0.49	0.32	-0.08	0.21	-0.17	-0.45	0.06	0.05
Malta	0.71	1.17	0.60	0.89	0.98	0.48	0.81	0.84
Portugal	0.69	0.59	0.48	0.18	0.52	0.58	0.50	0.53
Spain	0.71	-0.50	0.42	0.62	0.68	0.56	0.41	0.46
<b>Mean</b>	<b>0.62</b>	<b>0.23</b>	<b>0.39</b>	<b>0.45</b>	<b>0.46</b>	<b>0.21</b>	<b>0.39</b>	<b>0.42</b>
<i>Central- and East-European countries in the EU:</i>								
Bulgaria	0.05	0.20	-0.61	-0.08	-0.66	-0.58	-0.28	-0.31
Czech Republic	0.59	0.96	0.45	0.67	0.43	-0.11	0.50	0.51
Estonia	0.69	0.53	0.67	0.92	0.63	0.47	0.65	0.69
Hungary	0.48	0.62	0.11	0.46	0.24	-0.09	0.30	0.31
Latvia	0.38	0.33	0.12	0.36	0.28	-0.21	0.21	0.22
Lithuania	0.47	0.57	0.14	0.36	0.22	-0.10	0.28	0.29
Poland	0.60	0.99	0.13	0.36	0.15	0.02	0.37	0.38
Romania	0.02	0.05	-0.77	-0.01	-0.52	-0.56	-0.30	-0.33
Slovakia	0.46	1.02	0.28	0.45	0.04	-0.14	0.35	0.35
Slovenia	0.58	0.76	0.47	0.10	0.50	0.40	0.47	0.49
<b>Mean</b>	<b>0.43</b>	<b>0.60</b>	<b>0.10</b>	<b>0.36</b>	<b>0.13</b>	<b>-0.09</b>	<b>0.26</b>	<b>0.26</b>
<i>Central- and East-European countries outside the EU:</i>								
Albania	-0.33	-0.51	-0.91	-0.53	-1.03	-0.82	-0.69	-0.74
Bosnia-Herzegovina	-0.55	-1.11	-1.40	-0.91	-0.95	-0.71	-0.94	-0.99
Croatia	0.01	0.49	0.03	-0.13	-0.38	-0.36	-0.06	-0.07
Kosovo	-0.60	-1.73	-1.25	-0.85	-1.24	-1.02	-1.12	-1.17
Macedonia	-0.34	-0.87	-0.81	-0.46	-0.88	-0.46	-0.64	-0.67
Montenegro	-0.23	0.36	-0.54	-0.87	-0.59	-0.72	-0.43	-0.48
Serbia	-0.14	-0.79	-0.74	-0.82	-0.98	-0.61	-0.68	-0.72
<b>Mean</b>	<b>-0.31</b>	<b>-0.59</b>	<b>-0.80</b>	<b>-0.65</b>	<b>-0.86</b>	<b>-0.67</b>	<b>-0.65</b>	<b>-0.69</b>
<i>Countries of Middle East:</i>								
Israel	0.19	-2.15	0.69	0.65	0.35	0.20	-0.01	0.05

Jordan	-1.26	-0.61	-0.54	-0.51	-0.34	-0.37	-0.60	-0.64
Lebanon	-0.76	-2.20	-0.98	-0.75	-1.27	-1.21	-1.20	-1.24
Syria	-2.10	-1.30	-1.20	-1.91	-1.14	-1.41	-1.51	-1.60
Turkey	-0.59	-1.53	-0.25	-0.34	-0.46	-0.40	-0.60	-0.61
<b>Mean</b>	<b>-0.90</b>	<b>-1.56</b>	<b>-0.46</b>	<b>-0.57</b>	<b>-0.57</b>	<b>-0.64</b>	<b>-0.78</b>	<b>-0.81</b>
<hr/> <i>Countries from the former</i>								
<i>Soviet Union:</i>								
Armenia	-1.28	-0.24	-0.78	-0.47	-1.06	-1.05	-0.81	-0.88
Azerbaijan	-1.70	-0.66	-1.51	-1.32	-1.50	-1.53	-1.37	-1.47
Belarus	-1.98	-0.41	-1.82	-2.18	-1.67	-1.19	-1.54	-1.66
Georgia	-0.60	-1.13	-0.31	-0.11	-0.79	-0.56	-0.58	-0.61
Moldova	-0.50	-0.80	-1.28	-0.94	-0.99	-1.10	-0.94	-1.00
Russia	-1.37	-1.39	-1.04	-1.27	-1.39	-1.43	-1.32	-1.39
Ukraine	-0.58	-0.40	-1.44	-1.45	-1.41	-1.33	-1.10	-1.19
<b>Mean</b>	<b>-1.14</b>	<b>-0.72</b>	<b>-1.17</b>	<b>-1.10</b>	<b>-1.26</b>	<b>-1.17</b>	<b>-1.09</b>	<b>-1.17</b>
<hr/> <i>North-African countries:</i>								
Algeria	-1.44	-1.85	-1.21	-2.16	-1.37	-0.87	-1.48	-1.56
Egypt	-1.63	-1.42	-1.08	-1.01	-0.69	-0.94	-1.13	-1.18
Libya	-2.34	-0.35	-1.90	-2.16	-1.59	-1.61	-1.66	-1.79
Morocco	-1.20	-0.93	-0.80	-0.93	-0.77	-0.56	-0.86	-0.91
Tunisia	-1.77	-0.15	-0.41	-0.81	-0.45	-0.53	-0.69	-0.74
<b>Mean</b>	<b>-1.67</b>	<b>-0.94</b>	<b>-1.08</b>	<b>-1.42</b>	<b>-0.97</b>	<b>-0.90</b>	<b>-1.16</b>	<b>-1.24</b>

# Similarities and Differences of Institutional Change in NEP and Other Catch-Up Countries

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## **Abstract**

The working paper consists of the following parts: introduction; a chapter on the role of institutions for catch-up, covering a discussion on Washington Consensus and the BeST Consensus as the paradigms of East Asia catch-up economies development; a chapter with conceptual framework discussing whether the BeST Consensus model of successful growth of East-Asian states could be transferred to other transition countries; a chapter on institutional change in the transition economies, former Soviet Union states and the MENA region; a chapter describing existing data on institutional indicators of the economic growth by the World Bank and the World Economic Forum; in the end the working paper introduces the overall summary.

The role of institutions, both formal and informal, for uneven economic growth is clearly proved to be prominent while reviewing theoretical and empirical studies of institutional change in East-Asian countries as well-known catch-up states. By contrast, institutional transformation of the post-Soviet transition states and the MENA region economies shows how the low quality of institutions affects negatively economic transformation. The role of the government in high performing Asian economies is compared to the role of centralized post-communist governments within the perspective of institutional path-dependency and informal institutions being unready to accept formal institutional transformations. A conceptual framework of the paper provides theoretical perspectives of possible amelioration of institutional quality in ENP states using experience of up-front catch-up states, which introduces a possible useful theoretical sketch for the further empirical research in the institutional field of ENP.

## **I. Introduction**

It has been a long-way concern for many scientists today, why some economies develop and grow very fast and change the world economic map dramatically, and other developing countries still lag behind, while the experience of success cases might be replicable. What all the scholars on the topic demonstrate is that besides geographic positioning and trade, which are definitely responsible for the determination of income levels around the world, institutions, specifically the quality of institutional environment, outstrips everything else (Rodrik et al., 2004). It is believed that societies that encourage investment through the means of incentives and high quality institutional environment will be richer rather than the ones, who do not do so (Acemoglu et al., 2002).

Under institutions we mean formal and informal organizations, rules and policies, which encourage enforceability of law, property rights protection, and government support aiming at building up of a high-quality institutional environment. It has been a long debate on the subject of institutions being the same as organizations or not. Evolutionary economic geography implicitly distinguishes between institutions and organizations and institutions and routines, attributing institutions to specific territories and routines to firms. In such a way, institutions bear a territorial character being embedded in specific regional systems (Rafiqui, 2009). We assume informal component of institutional environment as important as the formal one, since as Tridico (2011) highlights it, acceptance and success of the new formal institutions depends on the fit with informal institutions, which already exists in the society. As North (1990) puts it, institutions, being the rules of game, and humanly incorporated constraints that form human behaviors, informal rules, social contracts and business culture, tend to have a limiting effect on how economic agents interact and thus on the whole economic development.

Institutional change in East Asia and other transition economies is specifically addressed in the paper. Institutional evolution as the prerequisite of economic growth depends on some specific determinants, which ensure context specific characteristics of transformation of institutional frameworks over time. Different stories of institutional transition in East Asia and post-Soviet states prove that it is determined by country's values, history, traditions and norms, which in the long run affect the acceptance of formal rules and regulations. Intrinsically analysis of differences and similarities of institutional change between East Asia and post-communist economies goes within the lines of old and new institutional economics. Institutional change, which took place in the independent states after the collapse of the Soviet Union, can be explained from the perspective of old institutional economics, according



to which “old and inefficient economic institutions can persist even when economically inefficient if they guarantee the pursuit of their original objectives, and when the power groups, the guarantors of these institutions, still consider them appropriate for the protection of their interests” (Tridico, 2011, p.125). By contrast, institutional transformation and its impact on economic catch-up for the East Asia states goes in line with the new institutional economics theory, stating that institutions are there to reduce transaction costs and new institutions emerge when the old ones are not able to reduce the transaction costs anymore (North, 1990). In such a perspective, inefficiency of bad institutional frameworks and the influence of institutional environments on economic growth and development is addressed further in the paper.

What exactly brings institutions up front and why, for example, East-Asian countries, managed to profit from their institutional environments and European Neighborhood Policy states (post-Soviet transition economies and Middle East and North Africa states) did not perform as well, facing institutions as obstacles for their development, is put for the discussion. Acemoglu et al. (2001, 2002) and Nagy (2002) refer with their reasoning of unsuccessful institutional development of transition economies towards the initial conditions and historical path-dependency of institutions, which makes them to be inherited by the countries together with their history and therefore the costly process of changing bad institutions for good ones is not attractive for governments. Lee and Mathews (2010) on the other hand, underline that East-Asian countries proved to be high performing and economically successful because they managed to use their institutions for the benefits of economic growth. State became supportive for the economy and economy as a result was seeking for cooperation with the state in Korea, China, Taiwan, Thailand, Singapore, whilst the state from the Soviet times could not transform its controlling role into a supportive one. All this has led to losing faith in the state.

The paper consists of the following parts: Chapter II deals with the question, why institutions are important for the catch-up, discussing in detail the success story of East-Asian countries and the Washington Consensus versus the BeST Consensus. Chapter III covers the conceptual framework and deals with the question if the success story of East Asia can be replicated. Chapter IV discusses the transition of post-Soviet states and the MENA region. Chapter V provides the data of the previous research carried out in terms of institutional assessment of the economies by the World Bank and the World Economic Forum. Chapter VI deals with the summary of the entire paper.

## **II. The role institutions for catch-up**

It has been largely accepted in the literature that economic systems are organized around institutions (North, 1990; Tridico, 2011). Differences in economic performances of states can be explained by the performance of formal and informal institutions within the specific regional, social and historic contexts. It has been largely accepted by evolutionary economic geographers that knowledge creation and technological development are the drivers of economic growth. Institutions do impact the formation of incentive mechanisms that enable investments in human capital and technology, that later on lead to economic growth (Rafiqui, 2009).

Economic transformations are backed up by certain institutional changes to create context specific conditions and frameworks for these transformations to take place. Institutions are endogenous to economic development, because the latter starts with institutional change aiming at getting the right institutions in place to adapt economic changes to the new circumstances and environments (Tridico, 2011). Hodgson (1995) comparing evolutionary change of institutions to the Darwinian process of biological change, stresses out that institutions are path-dependent and strictly endogenous and the change of formal and informal rules and regulations always comes first before the other transformations take place.

Variation of institutional change over space provides evidence that institutions spatially or geographically related. Thus, looking at Asian, African and Eastern European economies, we clearly see that socio-economic progress of these countries differs drastically. The rapid growth of East Asia has challenged other parts of the world with a firm statement that there is a range of drivers, which enforce such an economic outstrip. Taking a more detailed view into what these drivers are, the question arises what in particular enforced the development in East Asia and lacked in other transition economies while they were lagging behind. Here institutions come up front with examples of high performing East-Asian economies, which managed to outperform economically major economies of the world, having previously established high quality institutional frameworks and government presence in the economy.

### **2.1 Building of an institutional framework: from Washington Consensus to BeST Consensus**

The IMF and the World Bank, both institutions based in Washington, were stressing out the importance of deregulation, trade liberalization and the free market formula, which counted mainly for the market taking the lead on the basis of supply-demand law of an

economic model. Washington Consensus was introduced by John Williamson in his book “Latin American Adjustment” (1990) and together with a range of factors favoring secure and stable macroeconomic regime, especially in the field of fiscal regime, the consensus promoted free market policies (Lee and Mathews, 2010). It encouraged principally trade liberalization and deregulation favoring in such a way the market in charge of economic growth. Macroeconomic stability reached by the means of fiscal discipline and tax reforms and export growth were supposed to be the prerequisites of economic development.

In 1993 World Bank introduces “The East-Asian Miracle” report, in which it favors neo-classical view, or a “market friendly view”, although it also indicates a revisionist view, or a “government friendly view”. World Bank challenged an explanation of the East-Asian economies success with raising questions about the relationship between the government, the private sector and the market. Although the government appears to be an important player on the arena, it is mainly expressed through sound macroeconomic policies towards effective macroeconomic management and broadly based education system in the context of such relationships. Moreover, it is clearly stated that an extraordinary growth of high performing East-Asian economies was due to the accumulation of physical and human capital together with an enforcement of FDI investment and technological upgrading (World Bank, 1993). Thus, World Bank promotes clearly the role of market and competition, export growth and macroeconomic stability, increasing savings and productivity change in flexible labor markets in the achievement of economic upheaval by high performing East-Asian countries. Within this perspective World Bank partly supports the basics of the Washington Consensus, giving the floor to deregulation, trade liberalization and privatization as the drivers of growth. Of course, it is hard to argue that these determinants do not work for economic development. What comes up to be important in this respect is the location specific context and historic conditions attached to this context, in which Washington Consensus can work.

East-Asian economies bring an example of context specificity of conditions impacting catch-up with regard to FDI attraction, also promoted by the Washington Consensus. Enforcement of foreign direct investment makes not only an inflow of capital and physical resources, but also an inflow of knowledge assets, human capital and technological transfer, all playing a prominent role in upgrading process and catch-up. Another question is what stands behind such initiatives. Obviously, the role of the market appears to be played rather in the second scene of the play than in the first, when foreign investments are already in the market, property rights are secured and the legal framework is “installed for the business”. Primarily, the government is there to establish such an institutional framework, which will

create such factor conditions that will enable the market rule by itself. Stiglitz and Yusuf (2001) underline the chronology of government involvement during the catch-up process using an example of China. China used to have a centrally planned system, but its high growth has been largely associated with the dynamic institutional reform which made China grow from a planned to an emerging-market economy. China's transition happened in two stages. The first standing for building new innovative institutions at the advantages of the loopholes in the old institutional framework, whilst the second stage was already aimed at putting constraints on the previous reforms so that economy would develop, establishing modern market systems that would incorporate international institutions of the "best practice". In the first stage the government was an active player in the field, since it was directly involved in corporate governance through its ownership and control, especially considering the fact that existing institutions were very poor. In the second stage, when the main focus was on building market-supporting institutions, government pulled away by means of privatization, corporatization and securitization.

The Washington Consensus, specifically deregulation and trade liberalization on the first place could also possibly not achieve its initial goals unless there is a reliable legal framework, which makes the promotion of national and international competition possible and therefore, enforces economic growth. In comparison to other developing countries, East-Asian economies turned out to be more successful in creating a strong legal regulatory environment, which enabled property rights protection and rule of law as a good platform for economic development. Rodrik et al. (2004) stresses the importance of property rights and rule of law as the prior rules of the game of a society, yet relying on the context specificity depending on the historical trajectories, geography, political economy and other initial conditions (Acemoglu et al., 2002). Findings indicate that when the property rights are protected, the whole economy is growing better. A proof to this is the experience of Russia and China, whilst the former has the private property rights in place and the latter a social legal system. Chinese entrepreneurs felt sufficiently more secure to make large investments, which also played a prominent role in the rapid catch-up of the country. Whereas in Russia, investors were still afraid to get use of the private property rights, because it was all quite insecure. Institutional quality indicators prove this out with Russia scoring considerably lower than China, which also signals that it is more important to protect property rights than formally legalize them under private property rights regime.

The role of the government is clearly coming up front in the discourse of discussion of an unprecedented growth of high performing Asian economies and failure of Eastern

European countries, specifically Russia and Ukraine, together with North African states to catch up as efficiently as their Asian counterparts did in 1990s. Scholars refer to the orthodox Washington Consensus policies as the reason for poor economic performance of a range of post-Soviet economies after the reforms of 1980s and 1990s did not work out well (Tridico, 2011). Having realized the critical points of the Washington Consensus, international financial institutions proposed the so-called “Augmented Washington Consensus”, in which an important institutional platform was introduced. However, the institutional catch in the renewed Washington Consensus still had a limited perspective on broad government policies, market institutions and social dynamics as essential ingredients of the institutional complexity preceding economic catch-up.

Realizing the ineffectiveness of non-government economic regulation and failures of economic growth without solid institutional frameworks, Lee and Mathews (2010) refer to Beijing-Seul-Tokyo Consensus for economic development as a substitution for Washington Consensus. The focus of the BeST is a range of flexible underpinnings of certain policies and strategies that encourage capability building and development of a sound institutional platform (Table 1).

**Table 1. Washington Consensus vs. Augmented Washington Consensus vs. BeST**

	<b>Washington Consensus (1989)</b>	<b>Augmented Washington Consensus (2000)</b>	<b>BeST (2010)</b>
<b>Role of the state</b>	Weak role of the state (liberalization, deregulation and privatization of state enterprises)	Growing role of the state (enterprises under corporate governance)	Strong role of the state (industries and technologies targeting, leading sectors upgrading, gradual phasing out of non-market interventions, pilot agencies guiding the industrialization)
<b>Macroeconomic settings</b>	Lowering inflation, trade deficit, FDI attraction	Anti-corruption, flexible labor market, inflation targeting,	Stable macroeconomic settings (lowering

		adherence to WTO standards	unemployment, stable inflation, stable budget deficit)
<b>Financial system</b>	Fiscal discipline, tax reform (no or small growing rate), unified exchange rates, liberalized interest rates	Adherence to international financial codes, “careful” capital account opening, non-intermediate exchange rate regime, independent central banks	Catch-up friendly system (“easy” crediting conditions, financial incentives for upgrading and opening of new enterprises)
<b>Public expenditures</b>	Reduction of public expenditures	Public spending for social safety standards and poverty reduction	Public spending for firms’ capabilities development and broad based education building
<b>Economic growth potential</b>	<b>Market</b>	<b>Market</b> + <b>Government</b>	<b>Government</b> -> <b>Market</b>

Source: Own draft based on Lee and Mathews, 2010; Rodrik, 2004; Tridico, 2011

Contrary to the Washington Consensus and Augmented Washington Consensus, BeST introduced conservative macroeconomic settings, selective opening of industries for incoming FDI flows and industry targeting, i.e. selection and attraction of technological transfers to those industries which were meant for catch-up. A special attention must be paid to the following aspects, introduced by BeST: creation of pilot agencies to guide industrialization, targeting industries and technologies and upgrading of the leading sectors, building broad based education, from primary to tertiary education, provision of advanced knowledge access and firms capabilities building. The whole concept of government interventions into the economy through the means of pilot agencies and industry targeting introduced in BeST supports our assumption that the government has to come first in setting the rule of the game and the market is to come second to play this game. State intervention in East Asia did not paralyze the market self-regulation function. It had more a supplementary role of adding disciplinary functions without any intention of weakening the market discipline. The aim was to target the industries up till that point of time, when they will be able to compete

internationally. In order to pursue with these industrialization frontiers, East Asia required definitely strong government and leadership. Stiglitz and Yusuf (2001) underline that for Thailand, Malaysia and Indonesia government interventions played a crucial role for successful development of such industries as agriculture and agroprocessing. Without government leadership, Malaysia could hardly become a major electronics offshore site. While a number of incentives were used for encouraging FDI into the state, the government of Malaysia set up also a successful Penang Skills Development Centre, which helped employees to develop their technical competences, in such supporting the internal local environment.

Industry targeting though should be treated quite carefully. In this respect the major concern is what industries should be targeted and how does the government select the right industries. Targeting should proceed strategically towards those industries, which outperform externalities or market failure in terms of the gap between private and social return. This was the way for Japan's heavy industry promotion in 1950s and for Korea to establish successful telecommunications services industry, oriented for export, which was primarily overtaken by MNCs and JVs. Korea managed to do so only with the help of government, supporting technological transfer, upgrading and building of own manufacturing capabilities of firms. In Japan industry targeting of its own was named "bureau pluralism", which meant that private interests were primarily aggregated into an industrial association and then transmitted to a bureau, which was acting inside of the government and representing the industry's interests under its jurisdiction (Stiglitz and Yusuf, 2001). Technocratic insulation can be also addressed within the perspective of targeting of the right industries. Technocratic insulation means "the ability of economic technocrats to formulate and implement policies in keeping with politically formulated national goals with a minimum of lobbying for special favors from politicians and interest groups" (World Bank, 1993, p. 167). Thailand is a good example of government insulation mechanisms towards low inflation and prudent debt management. Thus, the Budget Bureau of Thailand consulted with the National Economic and Social Development Board about proposed public investments and with the Finance Ministry about expected revenues. Afterwards, together with the Central Bank it determined how much deficit financing can the economy afford without rising inflation. Some East-Asian economies have introduced bureaucratic insulations indirectly. This is explicitly observed within wealth-sharing mechanism, when the marginal cost of lobbying increased after the potential gain to interest groups decreased and therefore, interest groups appeared to be more willing to leave the policy process to technocrats.

Another important institutional component addressed by BeST and not mentioned by the International financial institutions is education. In contrast to Washington Consensus BeST Consensus includes broad based education as one of its core determining factors for economic growth. BeST stressed out the importance of a complete educational system, namely from primary to tertiary education, since for technological upgrading and firms capabilities building these are people skills that matter the most. Education policies are primarily of interest for the development of human capital, accumulation of which is also seen as a prerequisite of East-Asian growth success. Education reflects the level of structural change in the human capital, which is represented by people and their abilities to perform within the economic system which is transforming and their readiness to accept the outcomes of such transformation. Lee and Kim (2009) have also proved that institutions and secondary education as a part of an institutional framework do matter for “lower” income countries during transition from low to middle-income countries, whereas tertiary education and technological innovation are important factors for “higher” income countries when upgrading to high-income groups.

By and large, the role of the state in the catch-up story of East Asia is unprecedented. Interestingly enough is how Asian governments managed to find a balance in the levels of government interventions and their ability to integrate and embed institutions not only into the economy, but also into the society. East-Asian economic growth proves that obviously institutional framework does impact the way economic actors act being in such a way directed by a set of rules, regulations and government support.

### **III. Conceptual framework: East Asia success story lead by example?**

The main question arises whether the success of East-Asian countries and the BeST Consensus can be replicated in other developing states, specifically the former Soviet Union states and the MENA regions countries? How institutional factors, being an engine for the East-Asian miracle, can also drive other transition economies growth? And what institutional factors are determining for domestic companies and for foreign owned companies as the drivers of economic growth and catch-up? Catch-up now appears to be viewed as a process. Geschenkorn, A. (1962) points out that the comparative advantage of countries lagging behind is that they can really use the knowledge of the developed counterparts. He calls it a “late comer effect” and explains it through the process of specific institutional imitation enforcement by less developed countries, which in the long run help the latter to catch-up. This is a competitive advantage for countries, which are still economically underdeveloped to learn on the experience of well-developed countries and adopt development scenarios of the



latter to their own specific contexts. By specific contexts we also mean the conditions of specific locations. As Martin (2000) puts it, locally embedded institutions create a sort of “institutional milieu”, which in its turn facilitates the functioning of technological clusters. When the latter get established, they further encourage the formation of locally specific institutional systems, which also impact the technological spillover among local economic agents. Therefore, catch-up of the East-Asian countries also has its “spatio-institutional foundations”. This develops further in the notion of “regional lock-in”, when the local institutional regime is so much embedded in the usual regional context, that it just resists any change (Martin, 2000). Regional lock-in happened, for example, in such post-Soviet states as Ukraine and Russia, where the ties to favorable, but inefficient, institutions were so strong, that it was hardly possible to change the old institutions, everybody was used to. This means that replication of the East-Asian model of economic growth towards such former Soviet Union countries as Ukraine and Russia, for instance, should take into account the region specific context of those countries in order to escape the drawbacks of institutional thickness, persistent in the post-communist areas.

Stiglitz (1996) underlines that in principle East-Asian miracle could be replicated, if there was a provision of macroeconomic and political stability; broad investment in education; government policies could adapt to the changing circumstances and environments and focus on encouraging direct investments; governments were efficient in creating market institutions, like development banks and capital markets, so that markets could work more effectively; governments would aim at government-business cooperation, meaning introduction of such programs by the governments that could serve corresponding needs of the business community. An important aspect addressed here is that initially governments of East-Asian states did not aim at replacing markets, but to effectively support their normal functioning through sound regulations and policies. Stiglitz (1996) states that the main mistake of the former Soviet Union countries and other socialist, transition economies was that they tried to replace the market when there was a market failure observed. In East Asia, on the other hand, the government took action and supported the market, never intending diminishing its role in its original sense.

Another important issue, successfully incorporated by the East-Asian governments, was focus on cooperation with local businesses, which developed trust and faith in the state. This played a much more long-term role for the whole future development, because the state has managed to attain positive supportive image from the start. In South Korea, for example, government and private sector relations were quite close and cooperative up to 1980s.

Government took the businesses' view into account and included them as a critical policy component. There were meetings between the president, the ministers and top business leaders held, where the most vital topics were discussed. After these meetings the government-initiated discussion groups were gathered with the participation of managers, middle-level government officials and experts or scholars. Within such a perspective of business-government relations, private sector sees the government involvement as positive supporting role and can then focus on effective market competition rather than either waiting for a favor from the government or coming up with a cheating scheme of the bureaucratic elite. Labor relationships are also very useful in establishing a trustful and supporting link between institutions and economy. Governments of Japan, Korea, Singapore, Taiwan and China restructured the labor sector by eliminating trade-based labor unions and creating enterprise-based labor unions. In such a way companies were directly involved in implementation of work-related policies (World Bank, 1993). In such a way faith in government is reinforced, which is a key driver in building sound institutional environment for successful catch-up and further growth. Post-Soviet states need to recover the faith and trust towards the government and formal institutions. To do so, the government should focus on supporting and facilitating role of the economy, especially for domestic and foreign owned firms, as Asian governments did through introduction of special financial incentive schemes for business development, simplification of permits and licenses attainment, physical and intellectual property rights protection, increasing enforceability of laws and regulation policies, regarding those as important determinants firstly, for the functioning of domestic enterprises and secondly, for the attraction of FDI aiming at increasing knowledge and technology transfer from foreign owned firms to domestic companies.

The main prerequisite of FDI attraction is building up of a sound legal platform and securing property rights, both of which has been successfully achieved by the high performing East-Asian states (Rodrik et al., 2004). Thus, institutional framework becomes a system of determinants of building up and development of economic actors. Institutional factors matter for both domestic companies and companies with foreign ownership with regard to their location strategies and business development. World Bank and World Economic Forum have focused on both domestic and foreign owned firms while assessing institutional environments within overall ranking of the world economies on ease of doing business and competitiveness parameters (World Bank, 2012; World Economic Forum, 2011). In Table 2 we can see a range of institutional factors, which are relevant for either domestic firms or foreign owned companies or for both of them within encouraging their economic activities.

**Table 2. Importance of institutional determinants for domestic firms and firms with foreign ownership**

<b>Institutional determinant</b>	<b>Domestic firms</b>	<b>Firms with foreign ownership</b>
Starting a business	✓	✓
Registration of a property	✓	✓
Property rights protection	✓	✓
Investors' protection		✓
Protection of minority shareholders' interests	✓	✓
Contracts enforcement	✓	✓
Strength of auditing and reporting standards		✓
Burden of government regulation	✓	✓
Bureaucracy and administration barriers	✓	✓
Getting licenses and permits	✓	✓
Getting a credit	✓	
Paying taxes	✓	✓
Judicial independence	✓	✓
Resolving insolvency	✓	✓
Irregular payments, bribes and personal contacts	✓	✓

Source: Own draft by the author, on the basis of World Bank Doing Business 2012 Report; Competitiveness Report 2012, WEF

The majority of institutional determinants turn out to be important for all the firms irrespective of their equity capital structures. Investors' protection and strength of auditing and reporting standards seem to be more important for foreign owned firms rather than for domestic companies, whereas getting credit is a determining for domestic firms, since the origin of funds of foreign owned companies is either the mother company or financial institutions of the mother country and not the recipient state. A range of the above institutional factors also represent the basics of the BeST Consensus, namely facilitation of business regulations and barriers, supporting firms in getting credit and resolving insolvency and securing of property rights. This means that provision of these institutional determinants within the framework of transferability of the BeST model is essential for encouraging favorable conditions for domestic enterprises and attraction of FDI. Governments of East Asia also focused primarily on small and medium-sized enterprises while building up high quality

institutional frameworks for domestic and foreign owned companies. Thus, Japan, Korea, Taiwan and China have been very successful in developing successful financial support programs for small and medium sized businesses. In Japan public financial institutions attributed on average 10% of lending towards SMEs together with introduction of government support credit programs for small and medium sized businesses. In 1989, SMEs stood for around 52% of manufacturing value added and sales. Korea also established a good incentives system for SMEs, which resulted in 52% employment in SMEs in 1988. In China and Taiwan, due to the government support, SMEs comprised around 90% of enterprises in each sector (World Bank, 1993). Therefore, the priority in reflecting positive experience of East Asia within the reality of post-Soviet transition should be given to the institutional determinants for the growth and development of small and medium-sized businesses, both domestic firms and foreign owned companies, in such a way ensuring knowledge and technology transmissions and easy access.

One of the reasons why post-Soviet countries were not able to replicate the story of high performing East-Asian economies is that historical background of the Soviet Union meant also a concept of institutions as a burden for economy. Bureaucracy, corruption, unfair standards of planned economy tracing back to the Soviet times led to what Stiglitz and Yusuf (2001) called a “corrupt government view”, when government’s relationship with the business results in corruption. This led to the formation of specific informal institutions, which comprised characteristic social norms, values, beliefs and behaviors of the society, which influenced the development of business culture and attitudes towards formal institutions. Informal institutions in such a way prove to be important ground for the development of effective institutional frameworks. Stiglitz (1999) supports this view by stressing the role of institutions as a “social glue”, especially for transition economies. He criticizes the shock therapy, together with liberalization and decentralization in post-Soviet countries, since the methods did not encourage the development of social and organizational capital in the post-Soviet societies, which led to an absence of social norms and mentality for the transition period. Tridico (2011) has also mentioned that transition of post-communist states should not be view as a simple “economic journey” from one point to another, but it should be an institutional evolutionary process, which will encourage consistency between formal and informal institutions. Introduction of institutional frameworks, formal market institutions should take into account historical past and values of the country. In replication of East-Asian model within post-Soviet transition states it is very important to introduce government interventions in the economy in a form of gradual process of adaptation, rather than radical

transformation. In this respect, incremental building up of an informal institutional framework, taking into account existing business culture of the society, should be a prerequisite of economic transition.

#### **IV. Institutional transition**

Transition period is always a challenging process because it involves change of something that has been already settled, a break of the system, and most importantly it always deals with transformation from an old to a new. How much of an old will still be there in the new depends on the quality of the transformation and its complexity, and the readiness of the system to accept the changes. Economic transition traces back to different spheres of social, economic and political life of any economy. Therefore, economic transition occurs together with the change of culture, social norms, habits and institutions. The roots of economic transition lie in the institutional transformation, when the new formal rules, laws and regulations have to interact with old ghosts of the past, namely informal behaviors which frame social behaviors, impact social organizations and in such a way influence the whole economic system (Tridico, 2011). Therefore, we could possibly claim that institutions are path-dependent in their nature and institutional frameworks are already to some extent predetermined by the echo from the past. Furthermore, as Martin (2000) points it out the impact of institutional path dependence is the most significant at regional and local levels, since institutions bring together the local economic histories. Different institutions at different places by interacting with the economic regimes of those places produce sort of a place-dependent path dependency of institutions.

Acemoglu et al. (2001) prove the persistence of institutions from the past in specific places by presenting a theory of institutional differences between countries colonized by Europeans. By using this theory the authors attempted to estimate the impact of institutions on economic performance using mortality rates by the first European settlers were to measure it. The results of the studies proved that settler mortality rates determine settlements, settlements determine early institutions and there is a strong correlation between early institutions and institutions today. Acemoglu et al. (2001) also provide interesting evidence concerning the persistence of institutions. Extractive institutions, which were developed by the colonialists, still are present after the independence. The reasons for such persistence can be different, starting from the fact that introducing other institutions is always costly, governments decide to stay with such an “inheritance”, and going along with a statement that extractive institutions always brings benefits to the elite, especially if it is a small elite, so this small elite will always protect the functioning of extractive institutions. This leads to a rationale that

institutions stay within a specific geographic entity over time, bringing their inherited rules and the way they are embedded in the society.

#### **4.1 Institutions in the post-Soviet transition economies: lost faith in the state?**

Transition of post-Soviet economies from a planned economy to a market economy is a perfect example of transformation of an economic paradigm. The Soviet Union collapsed quite unexpectedly, having left behind a range of centrally planned economies from old regime, which eliminated itself by its own means. As Nagy (2002, p. 5) puts it, “excessive centralization and monopolization soon created its antidote: the necessity of decentralization”. As a result, huge centralized institutions started to act according to their own rules and interests, managers of big state-owned firms stopped being obedient to central orders, special interest groups strengthened, role of the market was increased, the state as such has been alienated. Such a development after the collapse of the Soviet Union goes in line with Washington Consensus, proving that in contrast to East-Asian economies post-Soviet economies have chosen a “market friendly” scenario of development rather than a “government friendly”. The main reasons for this could possibly be the path-dependency of institutions and an endeavor of post-socialist governments to transform economic system without transforming social systems of post-soviet societies. Concerning institutional path dependency, we are coming back to Acemoglu et al (2001), who argued that the reason for European colonizers to leave extracting institutions or existing bad institutions in prosperous places was that these were beneficial for colonizers to take an advantage of institutional loopholes and absence of some rules, and moreover bad institutions were of minor concern because of the costs related to changing them. Ukraine and Russia are good examples of such government strategies in the transition periods. There is no incentive to change the legal framework, which is comfortable for the ruling elite to take advantage for bureaucracy and corruption, because existing rules are either easy to bypass or it is much more convenient to govern when there is no institution to control the governance, leading to rent-seeking and lobbying (Tridico, 2011). Another issue is that it is hardly possible to introduce a new institutional framework, without paying attention and resources for changing the social capital and existing informal institutions embedded in the societies. When the informal institutional framework is not ready to accept the new formal rules, there is just not match in the puzzle to get the initial goals accomplished. Tridico (2011) introduces an interesting concept – the dichotomy thesis, explaining the failure of transition post-communist economies to effectively catch up through the inconsistency of formal and informal institutions. He argues that “old habits, previous behavioral patterns, old ethos and the existence of old lobbies and all the

informal institutions curb the dissemination of new formal institutions and their reinforcement” (Tridico, 2011, p. 138).

Importance of fit between formal and informal institutions is also expressed through the fact there should be a cooperative equilibrium between the state and economy agents. Such institutional arrangements are possible when there are social and economic institutions developed to monitor and report for non-cooperation if any. Absence of such an equilibrium in East European states has triggered a whole range of other problems, such as traditional trade unions lost their credibility while they served obediently to the communist regimes; the newly created democratic unions were unable to make commitments; low wages attracted foreign investments, which led to the growing role of multinational companies, which using absence of a sound institutional environment just created powerful new lobbies and pressure groups. Nagy (2002) refers to the role of multinational companies in the transition period of Eastern European economies in a very interesting way. He explains that transition countries depend very much on their integration into the global economy and therefore their relations with multinational companies are very important. It led to an understanding that privatization was necessary to get rid of the inefficiencies of state ownership and central planning. On the other hand, it also triggered somehow the process of selling out the national wealth, when a public monopoly became a private monopoly of some interested groups, only because there was no proper institutional platform which could regulate FDI inflows.

Post-Soviet countries represent also an interesting case scenario for the fact that the Soviet Union with its planned economy and major rule of the government after its collapse left the communist style institutional infrastructure for the independent states. Thickness of this institutional infrastructure was based on bureaucracy, corruption, ineffective market institutions and absence of rule of law, security of property rights in the majority of post-Soviet states. This intuitional thickness resulting in an institutional lock-in has led to the situation that rebuilding of formal institutions was just not accepted by the economy, because it was not ready to incorporate the changes and there was no longer faith and trust in the state, which happened because the so called “nomenklatura” (the government officials in Soviet Union) were always “above the law” and could commit crimes, take bribes, do whatever they wanted as long as were on their powerful positions (Nagy, 2002). Swain (1998) in his comparative analysis of automotive industry in Hungary and coal mining industry in eastern Ukraine refers to “institutional failure” in Hungary and Ukraine, triggered by asymmetrical relations between institutions. In Eastern Ukraine, he argues, local producers and allied institutions were too dominant, because there was a weak national state institutional

platforms and absence of specific types of institutions. In Eastern Europe despite liberalization of markets and privatization waves after the collapse of the Soviet Union, the role of state did not diminish, it has just transformed into conglomerates, mafia and banks, which only regarded their own interests. Swain (1998) names three reasons of such an institutional failure: absence or exclusion of particular types of institutions; significant asymmetry in the relative power of different types of institutions and weakness of national state, which all resulted in emergence of barriers towards institutional change; institutional asymmetry triggered by too cohesive institutional frameworks, which also hindered strategic collective action.

Experience of post-Soviet economies proves that institutions are path-dependent and institutional environment has been somehow inherited by the independent states after the collapse of the Soviet Union. Due to no attention to the informal institutions and social capital, the changes that governments tried to incorporate within the years of independence did not have much success, because social norms and behaviors were just not ready to accept them. Lack of government support of the economy rather than government playing the role of a constraining judge resulted in the absence of equilibrium between the economy and institutional framework, which deteriorated the faith in the latter and made it impossible to impact the catch-up process.

#### **4.2 Institutional transformation for the MENA region**

Middle East and North Africa (MENA) region within the framework of institutional development and its impact on economic growth deals mainly with the reinforcement of domestic institutions and balancing between domestic and international institutional environments in order to get out on the international economic arena. In this respect Mina (2012) introduces two approaches that MENA states can conform to:

- a first best approach - strengthening the domestic institutional functions to approach the performance of industrialized countries;
- a second best approach – signing and entering into force bilateral investment treaties in tandem with improving their institutional functions.

Mina (2012) stresses out that institutional reforms promoted by the World Bank, the IMF or the WTO presume a number of appropriate institutional arrangements to which countries have to conform, so namely a best practice to follow. He finds that the best practice scheme does not involve interactions between institutional features, whereas the second best practice considers a cooperative component in the system of institutional arrangements, which



also employs then a transfer of knowledge and experience between the involved actors. In his study Mina uses panel data for the period of 1992-2008 and analyses the first and the second best approaches to reducing the risk of investment expropriation to encourage FDI flows. Mina also assesses the performance of domestic institutional functions at the regional and country levels, comparing the domestic institutional function performance, both property rights protection (PRP) and political, to 24 OECD countries using the ICRG political risk components (a higher score indicates a lower risk) (Table 3).

**Table 3. Domestic institutional functions in MENA (1990-2008)**

Function	Property rights protection					Political					
	<i>Investment profile</i>	<i>Corruption</i>	<i>Law &amp; Order</i>	<i>Bureaucracy quality</i>	<i>Government stability</i>	<i>Ethnic tensions</i>	<i>Internal conflict</i>	<i>External conflict</i>	<i>Military and politics</i>	<i>Religion in politics</i>	<i>Democratic accountability</i>
<b>Regional level</b>											
Max institutional score	12,0	6,0	6,0	4,0	12,0	6,0	12,0	12,0	6,0	6,0	6,0
MENA	7,23	2,77	4,0	1,79	9,2	4,56	9,11	9,96	3,03	3,51	2,64
OECD	9,09	4,77	5,57	3,78	8,25	4,97	11,1	11,04	5,77	5,62	5,73
MENA-OECD ratio	0,795	0,581	0,718	0,474	1,115	0,918	0,821	0,902	0,525	0,625	0,461
<b>Country level</b>											
Morocco	8,0	3,0	5,0	2,0	9,6	4,7	9,4	9,9	3,9	4,1	3,3
Algeria	6,8	2,3	2,4	1,8	8,3	3,1	5,7	10,4	1,1	1,2	3,2
Lebanon	6,6	1,5	3,6	1,5	7,7	4,4	7,8	6,3	2,7	2,6	4,1
Egypt	7,0	2,2	3,6	2,0	9,2	5,4	8,4	10,1	3,0	2,5	2,8

Source: Mina (2012)

The results prove that reducing the risk of expropriation of investment, ensuring government stability as two basic PRP institutional functions has a positive impact on FDI flows. Mina suggests that PRP can be strengthened by entering into force bilateral investment treaties with OECD countries in addition to increasing investor protection domestically. The results also prove that the influence of bilateral investment treaties is not as strong as that of domestic institutional strengthening. The adoption of a second best approach in order to increase PRP impacts positively FDI flows, but its positive influence is dependent on the success of the first best approach. Therefore, domestic institutional functions are to be reformed properly so that the bilateral investment treaties work accordingly.

## V. Data

World Bank publishes annually Doing Business Report, focusing on the premise that economic activity requires good rules. Good rules and regulations have to be efficient, accessible and simple. Doing Business pays special attention towards regulations, which provide stronger protection of investor rights. It takes the perspective of domestic, primarily small companies and measures the regulations applying to them through their life cycle. Doing business 2012 covers 183 economies, namely 46 economies in Sub-Saharan Africa, 32 in Latin America and the Caribbean, 24 in East Asia and the Pacific, 24 in Eastern Europe and Central Asia, 18 in the Middle East and North Africa, 8 in South Asia and 31 OECD high-income economies. Doing Business assessment is based on the results of the survey, which is carried out with the help of the questionnaire that uses a simple business case to ensure comparability across economies and over time. In 2012 World Bank ranked economies on the basis of ten areas of regulation: for starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency. Doing Business index is calculated as the ranking on the simple average of its percentile rankings on each of the ten topics (World Bank, 2012).

We will overview the ranking on the ease of doing business for East Asia (China, South Korea, Thailand and Vietnam) and ENP countries, namely North Africa economies (Morocco, Algeria, Lebanon, Egypt) and Eastern Europe states (Ukraine, Belarus, Moldova, Azerbaijan, Armenia). From East-Asian block only South Korea improved its position in comparison to the previous 2011 year. From North African block only Morocco positively raised its ranking for 21 points. In Eastern Europe block all economies, except for Ukraine, improved its position in comparison to 2011 year (Table 4).

**Table 4. Ranking on Ease of doing business**

State	Doing Business 2012 rank	Doing Business 2011 rank	Change of the rank
East Asia			
China	91	87	-4
<b>South Korea</b>	<b>8</b>	<b>15</b>	<b>7</b>
Thailand	17	16	-1
Vietnam	98	90	-8
North Africa			
<b>Morocco</b>	<b>94</b>	<b>115</b>	<b>21</b>
Algeria	148	143	-5
Lebanon	104	103	-1
Egypt	110	108	-2

Eastern Europe			
Ukraine	152	149	-3
<b>Belarus</b>	<b>69</b>	<b>91</b>	<b>22</b>
<b>Moldova</b>	<b>81</b>	<b>99</b>	<b>18</b>
<b>Azerbaijan</b>	<b>66</b>	<b>69</b>	<b>3</b>
<b>Armenia</b>	<b>55</b>	<b>61</b>	<b>6</b>

Source: Own draft by the author on the basis of World Bank Doing Business 2012 Report.

If we look more precisely on the ranking on the ease of doing business, namely on the ten areas of regulation, according to which the countries are ranked, we can compare the ranking of different economies towards the average for the region or group of countries, to which the respective economy belongs. Thus, South Korea, which belongs to the OECD high income group, performs worse than the average for the group only on two parameters: registering property and protecting investors. China and Thailand belong to East Asia and the Pacific region. In the case of China, it lags behind on the majority of indicators: starting a business, dealing with construction permits, getting electricity, protecting investors, paying taxes and resolving insolvency. Thailand draws a much more successful picture than China, since only in the area of paying taxes it stands behind the average index for the region. Morocco belongs to Middle East and North Africa Region and performs worse than the region's average towards getting electricity, registration property, protecting investors and paying taxes. Ukraine, belonging to Eastern Europe and Central Asia, lags behind the region's average within all indicators, except for two: getting credit and enforcing contracts (Table 5).

**Table 5. Ranking on the ease of doing business (in comparison to the region's average)**

Rank 2012	South Korea	Average for OECD high-income	China	Average for East Asia and the Pacific	Morocco	Average for Middle East and North Africa	Ukraine	Average for Eastern Europe and Central Asia
Starting business	a 24	<b>57</b>	151	<b>95</b>	93	<b>98</b>	112	<b>65</b>
Dealing with construction permits	26	<b>53</b>	179	<b>73</b>	75	<b>91</b>	180	<b>127</b>
Getting electricity	11	<b>54</b>	115	<b>75</b>	107	<b>71</b>	169	<b>129</b>
Registration property	71	<b>59</b>	40	<b>85</b>	144	<b>82</b>	166	<b>60</b>
Getting credit	8	<b>41</b>	67	<b>91</b>	98	<b>119</b>	24	<b>51</b>

Protecting investors	79	<b>63</b>	97	<b>83</b>	97	<b>95</b>	111	<b>68</b>
Paying taxes	38	<b>62</b>	122	<b>70</b>	112	<b>62</b>	181	<b>99</b>
Trading across borders	4	<b>34</b>	60	<b>77</b>	43	<b>79</b>	140	<b>105</b>
Enforcing contracts	2	<b>37</b>	16	<b>86</b>	89	<b>114</b>	44	<b>61</b>
Resolving insolvency	13	<b>27</b>	75	<b>106</b>	67	<b>99</b>	156	<b>81</b>

Source: Own draft by the author on the basis of World Bank Doing Business 2012 Report.

Thus, coming back to government-business relations, the supporting role of the government towards business, specifically SMEs, and facilitation of rules and regulations in the successful story of economic growth of East-Asian economies, the ranking on ease of doing business also suggests that South Korea is one of the leaders in the OECD high-income regional group within getting credit, trading across borders, enforcing contracts and resolving insolvency indicators. Therefore, institutional framework in South Korea aiming at creation of a supportive business environment with the rules and regulations enforcing business activity stands out to be one of the determining factors in its economic leadership, whereas Ukraine, scoring the worst in the overall ranking among its regional counterparts, is scoring also quite low within the same indicators. Especially trading across borders and resolving insolvency rankings in Ukraine are much lower than the region's average. This means that firstly, internationalization processes for SME's are burdened with complicated and business unfriendly regulations hindering FDI inflow and technological upgrading and knowledge sharing processes. Low scoring on resolving insolvency ranking is also linked to the fact that government in Ukraine lacks business supporting initiatives in order to encourage SMEs development. In contrast, Morocco scores tremendously better within trading across borders and resolving insolvency parameters in comparison to its regional average, which also goes in line with its getting forward in the ranking for 21 positions in 2012 compared to 2011. Therefore, lagging behind on institutional parameters proves to impact economic performance and overall economic growth.

World Bank also carries out Enterprise Surveys since 2002. The Enterprise Survey questionnaire covers such topics, as: corruption, crime, finance, firm characteristics, gender, informality, infrastructure, innovation and technology, performance, regulation and taxes, trade, workforce. In 2005 World Bank has conducted such a survey in South Korea, in 2006 in Thailand, in 2007 in Morocco and in 2008 in Ukraine. The detailed results concerning the

answers on the most “institutional topics”, such as corruption and regulation and taxes, are provided in Table 6 in comparison with the region’s average. From the figures in Table 6 we can see that while Morocco is scoring better than the regional average of Middle East and North Africa within corruption and regulation and taxes indicator, Ukraine is lagging behind. Therefore, corruption and regulation and taxes parameters clearly impact the whole Ease of doing business ranking, in which Morocco moves quite forward in the ranking and Ukraine keeps being low. Corruption parameter, covering mostly the issue of giving gifts with an aim to obtain a certain permit, resembles poor institutional infrastructure, both formal and informal. Regulations and taxes parameter shows how burdensome the rules set in the society are for the latter. Thus, in case of Ukraine, which scores low within all the regulations and taxes indicators towards the regional average, institutional framework turns out to be very “thick”, leading to an institutional lock-in and heavy rules rejection by the business. By contrast, South Korea and Morocco score quite well within regulations and taxes. This proves once again how important it is for the government to create real market, supportive institutions and not turn the rules into obstacles to eliminate.

**Table 6. Enterprise Survey in Ukraine (2008) and Morocco (2007)**

Parameter	State	Region				
	South Korea (2005)	High-income OECD countries	Morocco (2007)	Middle East & North Africa	Ukraine (2008)	Eastern Europe & Central Asia
<b>Corruption</b>						
Percent of firms expected to give gifts to public officials "to get things done"	14,1	12,1	13,4	37,0	31,8	24,9
Percent of firms expected to give gifts in meetings with tax officials	21,3	19,3	10,7	23,4	28,3	14,2
Percent of firms expected to give gifts to secure government contract	25,8	17,3	6,4	37,9	38,5	18,0
Value of gift expected to secure a government contract (% of contract value)	0,2	1,1	0,3	3,6	3,7	1,5
Percent of firms expected to give gifts to get an operating license	-	0,9	0	16,5	37,3	14,3
Percent of firms expected to give gifts to get an import license	-	1,4	20,0	22,9	2,6	16,7
Percent of firms expected to give gifts to get a construction permit	-	9,2	15,3	25,1	59,1	25,3
Bribery depth (% of public transactions where a gift or informal payment was requested)	-	3,1	8,4	20,4	30,9	14,9
Percent of firms experiencing at least one bribe payment request	-	4,6	-	53,1	38,5	19,1
Percent of firms identifying corruption as a major constraint	8,5	13,9	27,3	56,5	50,2	34,5
Percent of firms identifying the courts system as a major constraint	-	17,7	36,1	28,2	39,2	20,6
<b>Regulations and taxes</b>						
Senior management time spent dealing with	0,1	4,2	11,4	10,8	11,3	10,6

the requirements of government regulation (%)						
Number of visits or required meetings with tax officials	2,2	1,4	0,9	2,5	2,1	1,7
If there were visits, average number of visits or required meetings with tax officials	2,2	1,8	4,7	3,9	3,8	2,8
Days to obtain an operating license	-	29,2	3,4	41,0	31,0	25,7
Days to obtain a construction-related permit	-	62,8	61,0	94,6	135,4	81,2
Days to obtain an import license	-	27,4	-	29,8	16,4	15,0
Percent of firms identifying tax rates as a major constraint	15,1	29,3	55,7	47,1	55,1	39,5
Percent of firms identifying tax administration as a major constraint	9,1	19,7	17	34,4	35,3	20,6
Percent of firms identifying business licensing and permits as a major constraint	7,5	10,8	9,3	29,4	32,7	16,1

Source: Own draft by the author on the basis of World Bank Enterprise Survey Economy Snapshots

Another ranking is proposed by the World Economic Forum, which since 2005 has based its competitiveness analysis on the Global Competitiveness Index (GCI), a comprehensive instrument for measurement of the micro- and macroeconomic foundations of national competitiveness. And competitiveness is defined by the WEF as “the set of institutions, policies, and factors that determine the level of productivity of a country” (WEF, 2011, p. 4). GCI consists of 12 pillars. The first pillar is Institutions. The institutional environment is determined by the legal and administrative framework, which involves all the agents interacting together to generate wealth. WEF (2011) suggests that the quality of institutions has a strong influence on competitiveness and growth, but the role of institutions go beyond the legal framework. What is also very important is the government attitudes towards the markets in terms of bureaucracy, corruption, dishonesty in terms of public contracts, transparency. The World Competitiveness Report 2012 also highlights the importance of private institutions, since private-sector transparency is indispensable to businesses in order to ensure transparency in accounting and management practices.

WEF also divides countries into factor-driven, efficiency-driven and innovation-driven economies. Thus, Ukraine belongs to the transition stage from factor-driven economies to efficiency-driven economies. Morocco, China and Thailand belong to efficiency-driven economies. South Korea belongs to the innovation-driven economies. In order to transfer from one stage to another, certain requirements must be fulfilled. For example, in order to transfer from factor-driven to efficiency-driven economies, basic requirements have to be met, and institutions belong to these requirements, which also underpin the theory of Lee and Kim (2009), that institutions do matter for “lower” income countries. Overall, GCI covers 142 economies in 2012. A closer look on the GCI 2012 ranking of our interested groups of countries is presented in Table 7.

**Table 7. GCI 2011-2012**

State	Basic requirements rank 2012	Institutions rank 2012	GCI 2011-2012 rank	GCI 2010-2011 rank	Change of the rank
East Asia					
<b>China</b>	<b>30</b>	<b>48</b>	<b>26</b>	<b>27</b>	<b>1</b>
South Korea	19	65	24	22	-2
Thailand	46	67	39	38	-1
Vietnam	76	87	65	59	-6
North Africa					
<b>Morocco</b>	<b>54</b>	<b>59</b>	<b>73</b>	<b>75</b>	<b>2</b>
Algeria	75	127	87	86	-1
<b>Lebanon</b>	<b>109</b>	<b>115</b>	<b>89</b>	<b>92</b>	<b>3</b>
Egypt	99	74	94	81	-13
Eastern Europe					
<b>Ukraine</b>	<b>98</b>	<b>131</b>	<b>82</b>	<b>89</b>	<b>7</b>
Belarus	-	-	-	-	-



<b>Moldova</b>	<b>102</b>	<b>106</b>	<b>93</b>	<b>94</b>	<b>1</b>
<b>Azerbaijan</b>	<b>59</b>	<b>68</b>	<b>55</b>	<b>57</b>	<b>2</b>
<b>Armenia</b>	<b>94</b>	<b>83</b>	<b>92</b>	<b>98</b>	<b>6</b>

Source: Own draft by the author on the basis of Global Competitiveness Report 2012, WEF.

As we can see from Table 6, in contrast to World Bank Doing Business ranking, China, Lebanon and Ukraine improved their GCI ranking in 2011-2012 compared to 2010-2011. And South Korea has fallen two steps behind, although its basic requirements rank 2012 is much higher than of other East Asia countries. In terms of the ranking of institutions, in the East Asia, China is the leader with the highest rank in institutions out of our sample group and the highest GCI ranking after South Korea in the group. In the North Africa region, Morocco leads the institutions rank and overall GCI rank. In the Eastern Europe group Ukraine scores the worst for institutions, although its overall ranking is better than that of other countries of our Eastern European region sample group. China and Morocco prove that when the institutional framework works well, then the overall performance of the country improves. But the case of Ukraine puts some contradiction within this assumption, since bad institutional score did not hinder Ukraine's overall move forward in GCI ranking. Considering the nature of the WEF GCI ranking, namely expert assessment, the specificity of Ukraine's case as a post-Soviet country in terms of bad institutional scoring but progressive overall competitiveness scoring is that in post-Soviet countries institutions have been inherited as those they used to be in the Soviet Union. Bad institutions are path-dependent, which goes in line with the Alcemoglu (2001) assumption of the fact that when bad institutions are inherited, they are rarely changed because they are already embedded in the society. Therefore, post-Soviet countries somehow already learned to live with what they've got. Competitiveness is seen as something reached not with the help of institutions, but rather in spite of them. And we are coming again into lost faith in the state in Eastern transition economies, which seems to grow due to bad institutions.

Overall, we can observe some contradictions between the rankings described above. One reason to this may be, that while World Bank primarily focuses on SMEs in building its Ease of doing business ranking, whereas WEF focuses on expert opinions when developing GCI ranking. Institutions might be treated tremendously different by SMEs and expert assessments. SMEs evaluate institutions from the perspective of the latter being supporting bodies for small and medium size businesses, ease of opening and registering an entity, of obtaining licenses and permits, whereas experts focus more on the overall institutional framework of the country. Thus, Ukraine with its contradicting ranking by the World Bank and WEF is a very good example of such contradictions to take place. In Ukraine SMEs due to not receiving a diligent support from institutions, score the institutional indicator very low and the overall ease of doing business ranking falls dramatically. Experts on the other hand, evaluate the overall institutional framework, more precisely the aspect of its availability and not effectiveness. Therefore, we may conclude

as already stated above the role of SMEs in institutional development is important, because SMEs are the indicators of the effectiveness of institutional environment.

## **VI. Summary**

Many scholars agree that the role institutions play for the economic performance and growth of states is remarkably important. Apart from a range of other factors, especially geographic and macroeconomic determinants, institutions prove to have a clear impact on the latter. This means that institutions may be not the only factor of geographically uneven development, but they do act as constraints of economic growth in territories specific ways (Martin, 2000). New institutional theory links economic growth to the quality of institutions, focusing on the immaterial aspects of institutions, namely social capital, trust and values of the society. Other scientists find the connection between economic progress and governance capabilities of the state, which are expressed through the quality of formal institutional environments and regulation bodies. Therefore, institutions appear to be the first players in the scene, setting the rules of the game.

In this paper we interpret institutions as a set of formal and informal institutions. Behind formal institutions we mean rules, laws and regulations, the legal sphere with its specific bodies and organizations, which form the constitutional legislative framework of the economy. With informal institutions we mean a set of social norms and values, beliefs and attitudes, traditions and behavioral pursuits in achieving human's needs and reacting to the formal institutional environments. Analyzing the catch-up process of East-Asian countries and comparing their economic progress with the one of such transition economies as the post-Soviet states and the MENA region countries by building up a critical discussion around Washington Consensus versus the BeST Consensus, we have come up with a certain confirmation that there is a number of reasons of the post-communist economies lagging behind and the high performing Asian countries outstripping competitors in terms of economic growth. Firstly, post-socialist states did not manage to effectively change the institutions of the old regime for the new efficient ones. Secondly, even the minor institutional changes incorporated failed to work out as planned due to the lost faith in the state and absence of fit with the existing informal institutional environment. In this respect the path-dependency of institutions is addressed with an affirmation of the fact that institutional transformation is endogenous in its sense. Furthermore, we explored that institutions are also place-dependent, meaning that institutional regimes are formed within specific regional contexts and the more institutions are embedded in those regional contexts, the less flexible they are to accept the changes. And thirdly, in contrast to East-Asian states, other transition economies failed to build up government-business supporting relationships, since while in East Asia the government has never intended to replace the market, in post-Soviet states the government has tried to rule despite the market, not in favor of it.

By and large, the paper gives an overview of conceptual paradigms of old and new institutional economics applied to the specific contexts of East-Asian miracle and post-Soviet transition. The conceptual framework formulated deals with the question whether the success story of East-Asian countries could be possibly replicated to the reality of post-socialist states. It is interesting whether the BeST Consensus model with its main features of strong, but supportive, role of the state, stable macroeconomic settings, catch-up friendly economic system and a wide range of public expenditures for firms' capabilities development and broad based education building, could be transferable to other transition economies. In principle the main features of East-Asian catch-up, such as government support of the economy, building up of a high quality legal framework, upgrading of the leading sectors, ensuring knowledge and technology transfer, could be replicated in other countries. What is important is to identify what prerequisites are needed to make this replication effective rather than just "one size fits all" approach. First of all, the BeST model is transferable to other economies only if it is adapted to the local specificity context. Thus, the historical past and the path-dependency of institutions in transition economies should be taken into account. What is definitely needed for the acceptance of BeST Consensus by transition economies is building up of informal institutions, ensuring the recurrence of faith and trust towards government and its interventions in the economy, and at the same time ensuring that the formal institutional framework with all its rules and regulations aims at supporting the economy, business and the market rather than constraining it. One of the ways to achieve this is to start with reformation of the legal system aimed at facilitating the business related procedures, eradication of bureaucracy, securing of financial support for knowledge and technology transfer and provision of high quality education, ensuring close links between business and education institutions. It is also important to build up a cooperative equilibrium between the state and economy agents, encouraging in such a way close ties between the government and business. These ties are essential for the government to set supporting rules of the games for the economy, so that the state is aware of what is really needed by the business.

The research introduced in this paper, however, does not provide a complete strategic framework of how the countries lagging behind could catch up effectively. A more detailed study of the possible ways of assuring the fit between formal and informal institutions together with the actual process of institutional change within the framework of institutional path-dependency are important issues for the future study in the area. Analysis of the impact of institutions in the region specific contexts within the overall multilevel evaluation of institutional environments is another important concern for the future research of institutional change, as well as its influence on economic growth.

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