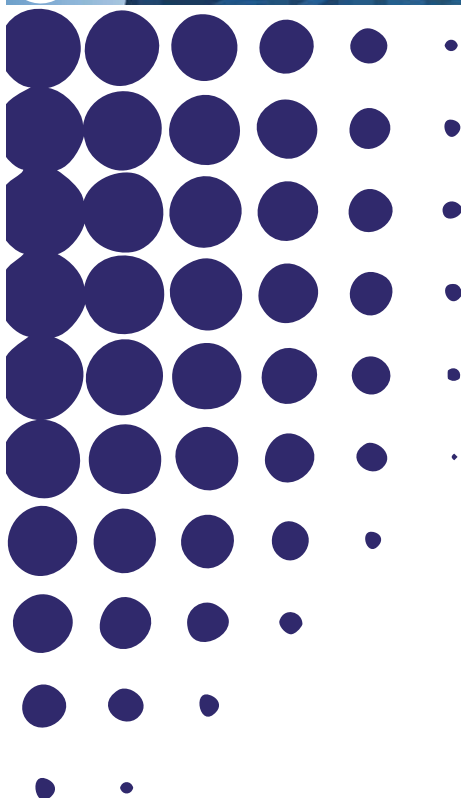


# WP5/01 SEARCH WORKING PAPER

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

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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, there 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 +<br>NMS +<br>NC – (ns) | WE +<br>NMS – (ns)<br>NC - |                            |
| Income        | WE +<br>NMS +<br>NC -      |                            | WE +<br>NMS -<br>NC -      |
| Education     | WE +<br>NMS -<br>NC (ns)   |                            | WE +<br>NMS +<br>NC -      |
| Individualism | WE -<br>NMS – (ns)<br>NC + |                            | WE -<br>NMS + (ns)<br>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).



