

Social Capital in Transition: A First Look at the Evidence*

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Abstract: This paper provides what we believe to be the first collection of data on social capital in the transition countries of Central/Eastern Europe and of the former Soviet Union. Using data from the World Values Survey 1990 and 1995 we document the degree of trust and of civic participation and find that these indicators of social capital are significantly lower than in OECD countries. The paper also provides a preliminary investigation of the link between social capital and growth during transition. Unlike in market economies, in transition countries trust is not positively related to growth; while participation in civic organisations shows a positive correlation. We also construct indicators of trust in public institutions and find positive correlations with growth rates. The positive association of civic participation with growth is robust to the use of instrumental variable techniques to control for potential problems of endogeneity.

Sociologický časopis/Czech Sociological Review, 2002, Vol. 38, No. 6: 693-720

Introduction

Social capital has received increasing attention as a crucial variable influencing economic performance. [Knack and Keefer 1997; Dasgupta and Serageldin 1999]. Particularly, the widely divergent and often disappointing results in the transition from a centrally planned to a market economy have been explained by variations in the stock of social capital. [Nowotny 1998, Stiglitz 1999]. Such efforts, however, have so far failed to take into account the differences in the definitions and concepts of social capital as they have emerged in the sociological and political literature [Tardos 1998]. Moreover, for the transition economies at least, the weight ascribed to social capital in explaining the variations in economic performance stands in stark contrast to the dearth of empirical evidence that would support such conclusions.

This paper aims to make a first step towards correcting these deficiencies. We start with a brief view on the salient concepts that have become associated with the term 'social capital'. We argue that only one class of definitions used in this literature - namely definitions of what we term 'formal social capital' - will lead to non ambiguous proposals concerning the impact of social capital on the economic performance of a specific

* The authors would like to thank Peter Sanfey for helpful comments on an earlier draft. The views expressed here are those of the authors and do not reflect EBRD's official position.

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country. We then present some first and preliminary evidence on the relationship between 'formal social capital' and economic reform and economic growth. We find that, generally, the stock of social capital is low in the transition countries. The relationship between this level of social capital and economic performance is not clear, however. We find that extended trust – that is trust in persons other than relatives and close friends – is not related to growth. This distinguishes the transition countries from countries with a fully evolved market economy where this correlation does exist. Active participation in various civic groups, on the other hand, does correlate positively with growth; as does trust in public institutions.

Social capital may be created more easily in prosperous economies: it is therefore not clear what is the cause and what the effect in the link between social capital and growth. Indeed, what we find is that more rapid economic growth and higher participation in civic organisations seem to be joint results of good progress in economic and political reform and transformation. Both growth and civic participation are also heavily dependent upon favourable or unfavourable initial conditions. We can, however, identify some initial conditions that seem to be closely correlated with civic participation but do *not* seem to correlate with growth. Using these initial conditions as instruments in a regression of growth against civic participation allows us to confirm the result of the simple correlation. The positive contribution of civic participation and trust in public institutions to growth is then jointly tested and supported in a regression framework, which also controls for the level of economic reform.

1. Definitions of social capital

The theories on social capital may be broadly divided into two sub groups. Following Putnam [1993], social capital is defined as a cultural phenomenon, denoting the extent of civic mindedness of members of a society, the existence of social norms promoting collective action and the degree of trust in public institutions. According to Putnam social capital has the properties of a public good. His work on Italy further suggests that social capital is accumulated over long periods of history. According to Platteau [1994], the emergence of universalist morality in western philosophical thinking accompanies the accumulation of social capital. This permits societies to deal successfully with the problems of collective action. Similarly, Raiser [1999] argues that 'extended trust' is needed in the transition countries in order to permit the evolution of a modern and market-based division of labour. Political scientists in turn focus on the connection between social capital and the development of those political institutions that establish and uphold the rule of law and which thus greatly facilitate economic exchange. The empirical evidence we present below allows us to test – to some extent at least – the relationships between moral norms, collective action and trust in public institutions for the transition countries.

In contrast to the definition by Putnam, social capital in the definition of Pierre Bourdieu [1993] refers to the investment in social networks by individuals. Social capital here is a private good, which can be converted into cultural capital, real wealth or 'symbolic capital' that signals social status. An individual's stock of social capital is thus a crit-

ical component of his or her power in society. Coleman [1988], who seems to have introduced the notion of social capital, similarly emphasises the benefits of social capital to the individual or to a network of individuals. For Coleman, social capital consists of the sum of the 'relational capital' several individuals hold and is governed by norms of reciprocity which are enforced by peer pressure, gain or loss in reputation, and the like. However, social capital may have positive economic externalities at the local level, by facilitating collective action.¹ Coleman's definition thus lies somewhere between a public and a private good. For reasons explained below, it is convenient to group Bourdieu's and Coleman's definitions of social capital together, as both are based on the notion of reciprocity in social and economic relationships rather than universalistic moral norms and values.

In both these interpretations, social capital facilitates economic exchange. However, the mechanisms through which this is achieved differ fundamentally. In Putnam's model of a working democracy, there is positive feedback between individuals' sense of civic duty, their participation in social life and the efficiency of existing institutional arrangements for contract enforcement. Moral obligations are reinforced in social networks and cheating is expensive. Moreover, civic participation enhances formal rule compliance and improves the accountability of government. Social capital therefore is complementary to formal institutions in supporting a complex division of labour. We label this type of social capital 'formal'. The choice of terminology reflects the fact that this social capital is accessible to all, independently of personal characteristics, rather like a formal institution such as a legal right or liberty. Its effect on economic performance at the country level should be unambiguously positive.

In Bourdieu's and Coleman's view, social capital may facilitate economic transactions between individuals, but this may often happen at the expense of excluding others. Belonging to a business club, for example, might yield solid pay – offs for those with sufficient wealth and social standing to be accepted as members. But the same business clubs might play the role of a protective guild vis a vis potential new entrants. Similarly, it is not clear whether a high degree of social capital at the local level translates necessarily into a benefit for the wider society.

The real test for all dense social networks is how they adapt to new economic circumstances that would require transactions with non-members (for case studies of efficient and non-efficient adaptation see [Humphrey and Schmitz 1996]; see also [Sedaitis 1997] for the case of Russia). Based on the relational and reciprocal aspect of most transactions conducted within these types of network, we label the Bourdieu/Coleman variety of social capital 'informal'. As explained, the effect of informal social capital on a country's overall economic performance is uncertain and could be negative.

Formal and informal social capital may co-exist, but they do not necessarily complement each other. When formal institutions are weak, informal social capital may have particular importance [Fukuyama 1995]. Over time, social relations may become increas-

¹ It is intriguing to think of social capital as an asset that is accumulated the more it is used. Hence, where norms of reciprocity exist, the more I offer help to my neighbour, the more he or she will feel obliged to help me.

ingly formalised and dense local networks might co-exist with a high level of civic participation and well-developed formal institutions. However, reliance on informal social capital ('connections'), particularly in relationships with public officials could also undermine trust in the impartiality of formal public institutions and corrode their functions through corruption, clientilism and 'tunnelling' out of public resources for private ends. Unfortunately, the data at our disposition does not provide for very clear-cut distinctions between formal and informal social capital. But it allows us to test whether in the transition countries the two types of social capital are closely related to one another, or whether the presence of one type of social capital implies that there is less of the other type.²

2. The role of social capital in transitional societies

The transition from central planning to a market economy and the transition from an authoritarian to a democratic regime is fundamentally a process of accelerated institutional change. Both formal and informal institutions need to adapt to the requirements of democracy and of market transactions. The resulting uncertainty places a heavy load on social arrangements. Mechanisms are thus needed to stabilise mutual expectations and to make behaviour of actual or potential counterparts more predictable [Wallace 1999].

There is large scope in transition for co-ordination of economic exchange through informal institutions and networks. These include barter arrangements, transactions in the grey and black economy and enterprise networks. All of these are based on 'informal social capital' [Kolankiewicz 1996; Rose, Mishler, and Haerpfer 1997]. Many empirical studies have highlighted the relevance of such informal social capital in the transition process; as for instance the extent to which relationships between enterprise directors and bureaucrats as they existed under communism have been adapted to take advantage of new economic opportunities [Stark 1997; Hayri and McDermott 1998]. Yet, the use of such informal networks can imply high overall costs to the general public. Entry of potential competitors may be discouraged. State institutions may be 'captured' and subverted to serve not the public interest but private gain [Hellman et al. 2000a]. In transition countries, the single individual might thus garner high returns from his informal social capital [Aslund 1996]. In absence of effective and countervailing public institutions, the social return on this capital could, however, become negative.

Both leading Eastern European dissidents (e.g. Vaclav Havel or Gyorgy Konrad) and Western social scientists have lamented the absence of a fully developed, vibrant civil society in communist and post-communist countries. This deficit would pose a major obstacle on the path of political and economic transition [see Smolar 1996; Rose 1993]. All

² The question of complementarity between formal and informal social capital has a parallel in the discussion of whether relational contract enforcement and formal, written contracts are complements or substitutes. Some recent evidence for market economies suggest that important complementarities exist between the two (Poppe and Zenger, 2000) although on aggregate the use of relational contracting is arguably more pervasive in less developed countries.

communist countries had experienced a phase of stark, totalitarian rule; and even after severe repression ended with the Stalinist era, participation in public affairs remained forced and ritualistic. People therefore tended to retreat from the public sphere into privacy; into the realm of relatives and immediate friends; or into innocuous groups promoting non-controversial cultural and leisure activities. Public institutions were perceived as alien, and – in central Europe in particular – as imposed by a foreign power.

Distrust in public institutions is thus one of the most pernicious legacies of communism [Gati 1996]. Surveys that compare corruption and the rule of law in the various countries of the globe generally place the transition economies well below the advanced market economies, and in the case of the CIS member states even below developing countries with similar income levels [see Surcke 2000, Transparency International 2000]. In short, communism seems to have left as legacy the perception that while each individual might profit from informal social capital, private returns to civic participation and other forms of 'formal social capital' would be low. Despite potentially very high returns to civic mindedness and cooperation during the transition, it would not be easily established – thus providing one possible reason for the disappointing economic performance of many transition economies.

In the remainder of this paper, we investigate three sets of questions. First, how do the transition economies compare with market economies as regards the nature and the stock of social capital? Second, what is the relationship between the stock and type of formal social capital and economic performance? Third, is the level of formal social capital in each country positively or negatively associated with the level of informal social capital?

3. Social capital in transition – preliminary evidence

In the empirical work that follows, we benefit from the availability of data from the 1990 and 1995 World Values Survey [WVS], which included 12 and 21 transition economies respectively to construct measures of moral attitudes, trust and civic participation. In this we follow Knack and Keefer [1997], who use a measure of 'trust' among anonymous individuals and the degree of participation in civic organisations as their measures of formal social capital. As measures of informal social capital we take the importance people attach to family and friends, also from the WVS. We then compare the data in the WVS with survey results from the New Democracy Barometer – NDB [see Rose 1998 and Rose, Mishler and Haerpfer 1997] and from EBRD's Business Environment Survey-WBES [see Hellman et al. 2000b]. Table 1 summarises all indicators used, gives their definitions, and shows which concept of social capital – formal or informal – they should be attributed to.

Before going any further an important caveat on the information conveyed by different country survey data should be noted. The responses given to questions that measure trust may be influenced in important ways by cyclical swings in public morale, or by specific events in any one year. Since the resulting variations over time are unlikely to coincide across countries, substantial biases could result from comparing countries at one

point in time. Equally important is the bias given to answers on issues of belief (such as trust and civic mindedness) by varying cultural traditions, or by the absence of a routine of opinion surveys. Such differences inevitably flavour the responses given and sometimes in ways that contradict the common perception of outsiders. Hungarians for instance, hold both their present political and their present economic regime in low esteem. Citizens in transition countries, worse off politically and economically, seem to have much higher esteem for their own institutions [see Rose, Mishler and Haerpfer 1997]. Notwithstanding such shortcomings, opinion surveys have provided a valuable tool for comparative cross-country analysis.

3.1 The hour-glass society – trust among anonymous individuals

The vast World Values Survey aims to uncover differences in the social and political attitudes as they exist between the populations of the countries covered. The key question on trust is as follows: 'Would you agree that people can generally be trusted or would you say that you cannot be too careful about other people?' Table 2 shows the average scores for the trust variable for all 21 transition countries in 1995 and in 1990, as well as the average for the OECD countries, for China and for Turkey. The latter two are the only developing countries that were made available to us from the data set, with China being of particular interest, as it is also a transition country.

The main finding is that in transition countries trust is generally lower than in the average OECD country; and much lower than in China; but much higher than in Turkey. Moreover, there is no indication at all from the data that in the transition countries, trust is correlated with economic performance. For instance, in 1995 the highest score for trust was achieved in the economically despondent Ukraine, whereas the second lowest score was registered for Poland, which, at that time, had already experienced two years of solid economic growth. A high level of trust might, however, have played a role in explaining the superior economic performance of China during its transition.³

Note that the results are generally robust over time, as the results for the 1990 survey available for 12 transition economies show. There is a general tendency for trust to decline between the two rounds in both market and transition economies. Changes in trust between rounds have very little to do with performance during the transition either – both stagnating Russia and booming Poland see their score decline by 13.9 and 16.6 percentage points respectively; which is rather similar to the declines in trust observed in the USA and the UK.

We further check the consistency of this important result by looking at various other measures of moral attitudes or civic mindedness reported in the WVS. Respondents were asked to record the frequency with which they engaged activities that implied a disregard for the common good. Again, it seems that compared with citizens in the advanced and wealthy countries, citizens in the transition countries are significantly less 'civic-minded'.

³ Note that Fukuyama classifies China as a 'low trust' economy and puts much stronger emphasis on informal social capital (the extended family) in explaining its recent success.

ed' (see also [Ockenfels and Weimann 1996]; but for a qualifying view see [Bolle 1999]). However, when asked about their attitudes towards the needs of others, citizens in the transition countries do not seem to differ that much from citizens in OECD countries. Their level of professed altruism is roughly comparable to the level of altruism in the OECD countries. On all of these counts, China shows higher scores than the transition countries to its West.

As has been mentioned, international, cross-country surveys on attitudes and opinions are plagued with numerous difficulties of interpretation. The results presented here should therefore be accepted with quite some caution. One major conclusion imposes itself nonetheless: extended trust in the sense of trust among anonymous individuals cannot be a major factor explaining the variations of economic performance among the transition countries of Central/Eastern Europe and of the FSU. The evidence rather indicates that trust is generally low in the transition economies. Rose [1995] summarises the arguments why this may be so in the picture of an 'hour-glass society'. Under communism, individuals forged strong mutual ties at the level of family and close friends, but rarely did they venture out of this well-defined circle. This part of the population formed the bottom of the hour-glass. At the top of the hour-glass were the similarly closed circles composed of the privileged, powerful and few members of the 'nomenklatura'. There was little interaction between these two levels.

Table 3 proceeds to check this particular argument. It reports the degree of importance individuals attach to families on one hand, and friends on the other. These are the only two indicators of informal social capital that become available through the WVS. People in transition countries value families as highly as do people in wealthy countries with fully developed market economies (albeit with some notable variation across countries). However, people in transition countries seem to rely far less on friends than people in OECD countries. Moreover, in such wealthy countries reliance on friends is highly correlated with the level of trust towards outsiders. This correlation does not exist in transition countries. Social circles in transition economies would seem to be smaller and more closed than in market economies, where the positive association between informal social capital (such as networks among friends) and general moral attitudes (extended trust) is higher.

3.2 Widening the hour glass – civic participation in transition

The World Value Survey also includes questions on the participation of individuals in civil society and on their confidence in public institutions. Participation in civil society is measured by active membership in civic organisations, including the Church, sports clubs, arts associations, environmental associations, and charities. In addition, there are also questions on membership in groups that represent economic or political interests such as trade unions, political parties and professional associations. The variable used in this analysis is the share of respondents saying that they are actively involved in such organisations.

Just as in the case of extended trust, participation in civic organisations is significantly lower in the transition countries than it is in countries with fully developed market economies – at least in most cases. The difference are more pronounced in 1995 than in 1990, however. In 1995, only the level of participation in political parties is comparable to the level of participation as it exists in established democracies and market economies. Unlike in the case of extended trust, there now is a significant correlation between participation rates in some of these civic organisations and economic growth during the transition. Cumulative growth between 1989 and 1998 correlates positively with participation in professional associations, in sports clubs, as well as with participation in 'other not further defined organisations' (we ignore this category in our further analysis).

We now divide the organisations listed in Table 4 into three groups:

- 1) Organisations that relate more to the private sphere, to personal beliefs, to personal morality and to the realm of leisure. This group includes the Church, sports clubs, arts organisations and environmental organisations, and charities. For the purposes of this paper we will call this group 'Type One' organisations.
- 2) Organisations which pertain more closely to the political and economic realm. The group includes political parties, trade unions, and professional groupings. For the purposes of this paper, we call this group 'Type Two' organisations.
- 3) For further analysis, we also form a subgroup of the 'Type One' organisations, excluding environmental and arts groups, which may be of least relevance for the formation of business ties and thus for economic performance.

This sub-division mirrors the sub-division into 'Putnam' and 'Olson' groups established in Knack and Keefer [1997].⁴ 'Type One' groups relate directly to the idea of a vibrant civil society and thus are assumed to impact positively on growth. Expectations with regard to the economic impact of the 'Type Two' groups diverge. They could affect economic growth negatively, especially if they become associated with rent-seeking by vested interests. But, on the other hand, they are an essential element of a pluralistic society and polity. As a matter of fact, Knack and Keefer find that in mature market economies, participation in the 'Type Two' groups has the stronger and more significant impact on growth. This suggests that at least in mature market economies, the benefits of functioning political institutions that can resolve social conflicts overweighs the disadvantages of organised vested interests seeking rents and blocking decision making.

All three sub-groups display a positive correlation with cumulative growth over the 1989–1998 period in the transition economies. These correlations are significant at the 5% level. Because of its stronger correlation with economic performance, we henceforth focus on the sub-group of 'Type One' organisations (excluding arts clubs and environmental associations) in all subsequent analysis. Correlations do not establish causality, of course. To take into account the possibility that economic growth may influence civic engagement, we repeated the exercise using civic participation in 1990. For that year, the sample of transition economies is much smaller, and the correlations of civic participation to subsequent

⁴ Knack and Keefer (1997) use the term 'Putnam Group' for the first type of organisations; and the term 'Olson Group' for what we describe as 'Type Two' organisations.

growth are insignificant. Thus intense civic participation at the start of transition does not seem to have contributed to subsequent growth. Chart 1 shows the changes in 'Type One' and 'Type Two' group participation for the 8 countries for which data is available in both survey years. Slovenia, Hungary and Romania show an increase in civic participation in all three groups, Russia only in the 'Type Two' groups, and the other four countries show declines in civic participation between 1990 and 1995.

Does this evidence suggest that growth determines the extent of civic participation rather than vice versa? Not necessarily. The nature of civil organisations is unlikely to be constant during the transition. At the start of transition, most organisations could have still been coloured and impregnated by the communist legacy; while by 1995, most of such organisation would have established an autonomous identity. More or less forced membership would have become supplanted by voluntary membership. We could also interpret our data as implying that an active civil society is an endogenous *outcome* of a successful transition, which in turn feeds back into higher growth rates. Indeed, in the next section, we find that high civic participation is a feature of countries with generally more favourable initial conditions and thus better overall performance during the transition.

We also ask, whether and how civic participation is correlated with political attitudes and with the volume of *informal* social capital. Indeed, citizens in transition countries are not less interested in politics than are citizens of countries with developed market economies. But unlike in the countries with market economies, in the transition countries political interest does not correlate with political participation in a cross-country comparison. As noted further above, people in transition countries attach less importance to friends than do people in fully consolidated democracies and market economies (although more than people in China!). Moreover, strong reliance on friends does not lead to higher civic participation – again in contrast to market economies.

The results obtained so far show a curious disjuncture in transition economies between the cross-country pattern for civic participation and the variation of social and moral attitudes of individuals. In some ways, one might be tempted to conclude that actions speak louder than words and that the civic participation variables are simply a more reliable representation of individual attitudes and ultimately of the level of social capital than questions about trust, reliance on the family, or interest in politics. Another interpretation, however, would be that these results show the path dependence of attitudes towards everything beyond the intimate circle of relatives and close friends. These attitudes change but at a sluggish pace. Civic organisations, on the other hand, have to adapt rapidly to a changing economic and political environment. Individual attitudes and habits that define the relation to these organisations change much more slowly. This interpretation is confirmed by other experiences of transition towards democracy. In post totalitarian Germany [Conradt 1980] and Austria, or in post authoritarian Portugal, democratic institutions became established and consolidated quite quickly, whereas it took much longer – a generation at least – for the corresponding democratic attitudes to become universally shared.

3.3 Trust in state institutions

We now turn our attention to attitudes towards the state, or trust in public institutions. While a key aspect of a functioning market economy and democracy, this might be conceived not so much as a prerequisite for the accumulation of social capital; but as its consequence. The WVS asks respondents to rate their degree of confidence in a number of institutions, including government, the press, the army, the legal system, the civil service, trade unions, the enterprise sector, the church and others. Scores range from 1-4, with 4 representing a lot of confidence and 1 no confidence.

Table 5 reports average scores for confidence in various institutions and again compares the answer to those given in countries with fully developed market economies. The results show that in transition countries, trust in public institutions is *not* systematically lower than in the wealthier Western countries. But there are notable exceptions concerning some key institutions: the legal system, the police, the trade unions, commercial companies and political parties. The results are roughly similar for 1990 and for 1995. The five first years of transition have not improved confidence in these essential institutions.

While, on the face of this evidence, the much-lamented lack of trust in institutions seems to be specific to a few – albeit important – areas, further robustness checks on the data raise concern about the results of the WVS. We compared the responses from NDB and BEEPS (implemented jointly by European Bank for Reconstruction and Development and the World Bank in 1999 – see [Hellman et al. 2000b]) with those given in the WVS. Both the NDB and the BEEPS include alternative ratings of trust in institutions by households and enterprises respectively. The NDB asks respondents to rate their trust in a given institution on a scale of 1-7 (with higher scores reflecting more trust). The BEEPS asks enterprises to rate the performance of various state institutions on a scale of 1 to 5.

Table 5 reports the correlations between the WVS and NDB and BEEPS trust scores for all those institutions where comparable questions were asked. Several correlations are negative, which raises suspicions about the usefulness of the data. The strongest positive correlations can be established for the following institutions: i) political parties, ii) the police, iii) the army, iv) the Church, and v) the legal system. As it happens, with the exception of the Church and the army, these are also among the institutions where transition economies record significantly lower levels of trust than OECD countries. We henceforth focus only on trust in the legal system, the police, the army, political parties and the Church as potential determinants of performance during the transition.

In the bottom of Table 5, we present correlations of confidence in the five institutions highlighted above with cumulative growth in 1989–1998. Confidence in the police shows the strongest positive correlation with growth, while confidence in the Church is weakly negatively related to cumulative growth during 1989–1998. The other correlations remain statistically insignificant. Table 5 also presents the correlation of an aggregate 'confidence in the rule of law index' with growth. This index is constructed as the sum of confidence in the police, the legal system and the army. It is weakly correlated with growth during the 1989–1998 period.

This result is somewhat disappointing given the importance generally attributed to

trust in public institutions. Indeed, when using the data from the NDB or the WBES, we get much stronger correlations. In Figure 2, we present a correlation of the average NDB score for trust in seven public institutions (the army, the civil servants, the courts, the government, the parliament, the political parties, and the police) against annual growth, pooled over the 4 years in which the NDB was implemented – 1993, 1994, 1996 and 1998. The correlation is positive and highly significant. The correlations with each of the sub-components are also highly significant. In Figure 3, we correlate cumulative growth in 1989–1998 against the degree of confidence in the legal system obtained from the BEEPS – again with highly significant results. Thus, while the WVS data do not yield strong conclusions about the relevance of trust in public institutions for a successful economic transition, data from other sources suggest that trust in public institutions is important.

3.4 Civic participation and trust in institutions – making social capital work

The evidence found on the positive relationship between civic participation and growth and between trust in public institutions and growth might suggest that civic participation and trust in institutions are themselves highly correlated. Indeed, at the heart of Putnam's argument about the role of civil society and of social capital for economic performance lies an argument about the impact that civil society has on the quality of government (thus the title of his famous book: *Making Democracy Work*).

Table 6 presents correlation coefficients between the two groups of civic organisations and trust in various public institutions. The strongest positive correlation can be established between civic participation and trust in the police. Trust in the legal system and the army is also positively related to civic participation. The correlation between civic participation and trust in these three institutions is slightly higher for 'Type Two' groups than for 'Type One' groups. There thus seems to be some association between civic engagement and trust in public institutions, particularly those associated with the rule of law. But the results are too weak to draw strong conclusions.

Data from the BEEPS again show only a weak positive correlation between civic participation and confidence in the legal system. However, taking trust in public institutions in the NDB as our measure of trust in the state, we find a strong positive correlation with civic participation both for 'Type One' and 'Type Two' groups. The small sample of just 12 transition economies cautions about reading too much into these results, but they do suggest that Putnam's argument of how democracy works might find some support in the transition economies. Note that a consistency check for market economies confirms that trust in state institutions is positively associated with civic engagement in both 'Type One' and 'Type Two' groups.

4. Social capital, initial conditions and economic reforms

What factors might explain the variation in social capital among the transition countries? And are these factors also important in explaining differences in economic performance

across countries? An answer to these two questions is an important step in identifying the causal links behind the correlations established so far. They might shed some light on possible policies that might raise trust.

4.1 Initial conditions and social capital

The existing literature provides some limited guidance on the possible determinants of the level of social capital in transition. Alesina and La Ferrara [2000] investigate the variation in trust among residents of the US. They find that social inequalities and ethnic heterogeneity at the local level are important determinants of trust. This is in line with the reasoning in Knack and Zak [1998] who present a model and some cross-country evidence linking trust to social distance – measured in this case by income inequality. Income inequality at the start of transition did show some variation across countries [Atkinson and Micklewright 1992], and ethnic divisions were very important in some countries but not in others. As Table 7 shows, *initial* income inequality is not related to civic participation five years later in 1995. By the mid-1990s, however, income inequality had started to diverge dramatically across the region and was negatively (albeit only weakly) correlated with the level of civic participation.

Since moral traditions and other aspects of culture are path dependent by their very nature, variations in civic participation could reflect underlying variations in historical developments [Putnam 1993; Platteau 1994]. It is not evident which aspects of different historical developments should be highlighted in this respect. We focus here on religious affiliation, GDP per capita and the rate of urbanisation. The first is a proxy for cultural differences, the second two variables measure differences in economic development. The correlations in Table 7 show that civic participation in 'Type One' groups and the overall investment climate rating is higher in places where the main religious affiliation is with either Protestantism or Catholicism. The level of urbanisation is negatively associated with civic participation – a finding that might support the notion of anonymity and isolation in urban agglomerations. Initial GDP per capita is not strongly correlated with either civic participation or trust in institutions.

Variations in the size of adjustment cost following years of distortive policies under central planning might also influence the level and quality social capital in the process of economic and political transition. Where such costs are very high, people may remain tied to subsistence strategies and might tend to be politically passive rather than actively participating in the process of change. This in turn would tend to reduce the opportunity for gaining trust in others as well as gaining trust in public institutions. We propose to capture the extent of adjustment costs during transition here with the simple geographic distance to Brussels, the numbers of years spent under central planning, the share of exports to the CMEA normalised by GDP, a dummy for whether a country had a prior history as a nation state and a dummy for the endowment with natural resources. As Table 7 reveals, higher economic distortions tend to be strongly correlated with lower civic participation rates, as does abundance with natural resources. Economic distortions are, however, by and large not associated with higher or lower trust in public institutions.

Looking at the final column in Table 7 it becomes apparent that most of the initial conditions listed here are also significantly associated with growth performance across the transition economies. This finding confirms the view, expressed further above, that variations in economic performance and the creation of social capital are really joint products of the same underlying causes. But this fact poses a methodological problem because it does not allow us to use the correlations between initial conditions and social capital to get around the issue of causality in the relationship between social capital and growth.⁵

Luckily, two of the variables seem to be highly correlated with civic participation but not with growth rates. These are exports to the CMEA and the urbanisation rate. At least for civic participation rates, these variables would seem to provide reasonably good instruments. For trust in public institutions no valid instruments are available. We now verify the results obtained so far in a regression framework, explicitly testing to what extent endogeneity of the social capital variables biases our results, using exports to the CMEA and the urbanisation rate as instruments for civic participation.

4.2 Civic participation, trust in public institutions and reform – preliminary regression results

So far we have presented just simple correlations. But these leave open the question as to whether the various measures of social capital are jointly significant and what weight to attribute to civic participation and trust in public institutions respectively. We will now use some very simple and preliminary regression to analyse this issue. We also conduct a very basic robustness test by including economic reforms into the model. Many other potential determinants of growth in transition are not included, raising the possibility of spurious results due to model misspecification. To some extent we would argue that such problems are unavoidable when investigating transition outcomes. But the very small number of observations obliges us to limit the number of variables.

We examine a very simple model of the form:

$$\text{Growth} = a + b * \text{Civic engagement} + c * \text{Trust in institutions} + d * \text{Reforms} + e$$

We also examine some interaction effects between all three variables. Trust in institutions is measured by the BEEPS investment climate scores. Reforms are measured as the average over the 1989–1998 period using EBRD's transition indicators. Growth is given as the logarithmic difference in income levels in between 1998 and 1989.

Table 8 presents the results of our various specifications. At the bottom of each column are two test-statistics, which examine whether endogeneity bias is a problem for our results. The Sargan-test for valid instruments essentially tests whether the instruments used also belong in the regression equation. As we established in the previous section, exports to

⁵ In other words, the initial conditions variables really belong in the growth equation. They would thus be correlated with the residuals of a simple regression of growth against social capital and thus not be valid instruments.

the CMEA and the urbanisation rate would seem to qualify as valid instruments due to the low correlation with growth but high correlation with civic participation. The Sargan test statistic fails to reject the validity of these two instruments in all the regressions. Note that for trust in institutions no instruments could be found and results thus need to be read with caution. The Hausman test checks the assumption of exogeneity directly by comparing the OLS and the IV estimators. Again in all the regressions shown, we fail to reject OLS estimation.⁶

The results in columns 1 and 2 confirm the simple correlations presented above. Over the 1989–1998 period, civic engagement is positively associated with economic growth. The value of the coefficient for 'Type One' groups is considerably lower than for 'Type Two' groups. Yet, the cross-country variance in the latter is also smaller – the value of the coefficients in both cases imply that one standard deviation in civic participation would explain around a 20 percentage point difference in cumulative growth. Moreover, the results suggest that although civic engagement may increase trust in formal institutions, it seems to have an independent positive effect on growth. One way through which civic engagement might directly benefit economic performance is by facilitating self-enforcement of market rules, without the need for recourse to third party enforcement by formal institutions.

Columns 3–4 show results of interacting civic engagement with trust in formal institutions. As mentioned, complementarity between these two variables is implied in Putnam's [1993] view of social capital. If his theory is correct, this also would imply a positive coefficient on the interaction term. Multicollinearity clouds the results in the case of 'Type One' groups, although the sign of the coefficient on the interactive term is positive. For 'Type Two' groups, we find no evidence of complementarity – in fact the interactive term is significantly negative.

In columns 5–6 of Table 8, we add economic reforms to the set of regressors. Economic reforms are positively correlated with each of these three variables, causing significance levels to drop relative to columns 1–4, although the total fit of the regressions improves considerably. Note, however, that for 'Type Two' groups the coefficient remains significant (column 6) and is only moderately reduced in value from the result in column 2.

One way to correct for problems of collinearity is to adopt a two-step procedure, first regressing reforms against civic participation and trust in public institutions and then using the residuals from this regression as a proxy for reforms in the performance equation. The result for 'Type One' groups appears in columns 7. Once the correction is used, the positive impact of social capital reappears, while reforms maintain a positive impact on growth. Finally, we attempted to find evidence for a positive interaction between reforms and the level of social capital but did not find convincing evidence that reforms work more effectively where civil participation or trust in the government are high.

⁶ Following Greene (2000, p. 385) we chose a simple F-test implementation of the Hausman test, which involves first regressing the potentially endogenous variable against the set of instruments and using the obtained fitted value as an additional regressor in the original equation. The F-test rejects the OLS specification if the fitted value is significantly different than zero. Support for the OLS model also comes from a comparison of coefficients in the two specifications: the coefficients on civic participation do not change much between the OLS and IV models.

5. Conclusion and policy implications

To recapitulate, this paper has yielded the following results. First, we established that – unlike in countries with mature market economies – differences in trust among anonymous individuals are not a good explanation for variation in economic performance of the transition countries. This, however, does not exclude the possibility that the low level of trust observed in all of these countries would impair the prospects for their long term economic growth and would disadvantage them in this respect in comparison to other emerging markets.

Second, the evidence shows that civic participation does seem to be correlated with economic growth, although the two are probably joint products of the same underlying causes. Nonetheless, our results are robust to corrections to account for endogeneity and to the inclusion of reforms as a determinant of growth. The causal mechanism linking civic participation to growth would seem to lie in the potential of civic organisations to improve the effectiveness of markets, for instance by facilitating the transmission of information, by lowering the costs of monitoring and enforcement, and by giving voice in the political process to market participants.

Third, trust in public institutions is also positively correlated with growth. Institutions that seem to be of particular relevance during the transition are the legal system and the police, while results for political institutions are more ambiguous. Trust in the media and in the Church does not seem to be related to economic performance.

Fourth, there is some evidence that trust in public institutions is positively correlated with civic participation. Our results are thus consistent with Putnam's theory of how democracy works. Yet, both civic participation and trust in public institutions have independent positive effects on growth. Civic engagement thus benefits economic performance not just by improving the performance of the state, but also by facilitating bilateral exchange. Our results suggest therefore that Putnam and Coleman may both be right.

What implications can be drawn from this analysis for policy? As we have shown, levels of social capital achieved in the mid-1990s were significantly correlated with variables characterising the different economic and social starting points in the transition. Those countries closest geographically and historically to Western Europe seem to have had the greatest ease in developing a civil society that could support the transition process. Keeping alive the hope of 'returning to Europe' may be one way in which the outside world could help build trust and social capital in the region – particularly in Southeastern Europe. In Russia and the CIS, a careful dialogue will be needed in order to help overcome legacies of distrust.

The negative correlation between income inequality and social capital that had evolved by the mid-1990s suggests that policies aimed at reducing high levels of income inequality could be important in a strategy of increasing trust in others and in public institutions. By the same token, governments should eschew chauvinistic tendencies within their countries, which only serve to exacerbate social divisions and thereby undermine trust. Finally, as Stiglitz [1996] and Dic Lo [1998] argue based on the success of East Asia, there are ways for governments to build trust in public institutions by offering a dia-

logue to members of the public and consulting over important policy changes. Low trust in public institutions is one of the predicaments politics in transition countries are faced with. But it is a predicament politics can deal with - at least in many important respects.

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Table 1. Formal and informal social capital, data, definitions, and sources

| | Source | Definition | Type of social capital |
|-----------------------------------|--------|--|------------------------|
| Generalised trust | WVS | Percentage of respondents that say they trust other people (alternative response: can't be too careful about others) | Formal |
| Civic-mindedness | WVS | Mean score (1 = always, 10 = never) of frequency of immoral actions (fare dodging, tax cheating, buying stolen goods, accepting bribes) | Formal |
| Altruism | WVS | Percentage of respondents who say they think about others (alternative response: only think about oneself) | Formal |
| Civic participation | WVS | Percentage of respondents who are active in civic organisations (alternative responses: members, but inactive; not members) | Formal |
| Ascribed trust | WVS | Percentage of respondents who value family a lot (alternative responses: rather, not at all) | Informal |
| Process-based trust | WVS | Percentage of respondents who value friends a lot (alternative responses: rather, not at all) | Informal |
| Political interest | WVS | Percentage of respondents who frequently discuss politics (alternative response: politics not frequently discussed) | Formal |
| Confidence in formal institutions | WVS | Mean score (1 = low confidence; 4 = high confidence) for each institution | Formal |
| Trust in institutions | NDB | Mean score (1 = no trust, 7 = great trust) for each institution | Formal |
| Confidence in legal system | BEEPS | Mean score (0 = low confidence; 3 = high confidence) | Formal |
| Quality of investment climate | BEEPS | Mean score of obstacles to investment (0 = high obstacles; 3 = low obstacles) formed over 10 dimensions, including policy instability, inflation, exchange rate, finance, taxes and regulation, infrastructure, judiciary, corruption, street crime, organised crime | Formal |

Table 2. Extended trust in transition

| | 1990 | 1995 |
|--|-------------|-------------|
| Transition economies | 26,4 | 23,2 |
| Albania | 27,0 | |
| Armenia | 24,7 | |
| Azerbaijan | 20,5 | |
| Belarus | 25,5 | 24,1 |
| Bulgaria | 30,4 | 28,6 |
| Croatia | | 25,1 |
| Czech Republic | 30,2 | 28,5 |
| Estonia | 27,6 | 21,5 |
| Georgia | | 23,4 |
| Hungary | 24,6 | 22,7 |
| Latvia | 19,0 | 24,7 |
| Lithuania | 30,8 | 21,9 |
| FYR Macedonia | | 8,2 |
| Moldova | | 22,2 |
| Poland | 34,5 | 17,9 |
| Romania | 16,1 | 18,7 |
| Russia | 37,5 | 23,9 |
| Serbia+Montenegro | | 30,2 |
| Slovakia | 23,0 | 27,0 |
| Slovenia | 17,4 | 15,5 |
| Ukraine | | 31,0 |
| OECD | 44,5 | 43,0 |
| China | 60,3 | 52,3 |
| Turkey | 10,0 | 5,5 |
| T-test: Transition economies vs. OECD* | 0,00 | 0,00 |
| Correlation with growth: | | |
| cumulative growth 1989–1998 | -0,15 | -0,27 |

Notes:

* T-test reports P-values for difference in means; 0.00 means statistically significant at more than 1% level.

Source: *World Values Survey* 1990, 1995.

Table 3. Ascribed and process-based trust in transition economies

| | 1995 | | | | 1990 | | | |
|-------------------------------|--------------------|--------------|---------------------|--------------|--------------------|--------------|---------------------|--------------|
| | Reliance on family | | Reliance on friends | | Reliance on family | | Reliance on friends | |
| | a lot | rather | a lot | rather | a lot | rather | a lot | rather |
| Transition economies | 86,04 | 11,91 | 35,35 | 50,17 | 79,52 | 17,21 | 27,35 | 49,09 |
| Albania | 96,28 | 3,22 | 19,14 | 67,59 | | | | |
| Armenia | 86,30 | 12,09 | 44,65 | 46,56 | | | | |
| Azerbaijan | 85,13 | 13,26 | 35,27 | 56,73 | | | | |
| Belarus | 84,48 | 13,30 | 31,73 | 50,75 | 76,85 | 19,74 | 36,52 | 43,86 |
| Bulgaria | 88,53 | 10,24 | 41,46 | 45,54 | 76,07 | 20,12 | 38,43 | 39,23 |
| Croatia | 85,34 | 12,23 | 48,41 | 43,55 | | | | |
| Czech Rep. | 91,08 | 7,26 | 38,65 | 50,83 | 85,59 | 10,97 | 27,96 | 52,58 |
| Estonia | 78,13 | 19,61 | 26,89 | 59,27 | 68,54 | 27,15 | 22,81 | 51,10 |
| Georgia | 91,19 | 7,11 | 67,84 | 27,87 | | | | |
| Hungary | 89,52 | 8,17 | 38,33 | 37,87 | 88,54 | 8,44 | 27,48 | 44,93 |
| Latvia | 68,06 | 25,50 | 24,29 | 57,01 | 72,52 | 23,26 | 16,38 | 52,73 |
| Lithuania | 73,97 | 23,22 | 21,89 | 56,02 | 65,31 | 28,79 | 19,01 | 53,08 |
| FYR Macedonia | 97,98 | 1,82 | 49,64 | 42,44 | | | | |
| Moldova | 79,04 | 18,11 | 21,39 | 50,97 | | | | |
| Poland | 90,15 | 9,50 | 26,11 | 58,49 | 90,59 | 7,91 | 22,76 | 56,20 |
| Romania | 88,83 | 8,90 | 20,76 | 47,45 | 83,21 | 15,23 | 24,70 | 49,03 |
| Russia | 84,06 | 12,65 | 29,35 | 49,78 | 78,94 | 17,68 | 29,24 | 47,59 |
| Serbia+Montenegro | 88,79 | 9,76 | 48,28 | 45,57 | | | | |
| Slovakia | 90,95 | 8,23 | 32,26 | 59,17 | 87,47 | 9,94 | 25,27 | 53,35 |
| Slovenia | 82,52 | 14,59 | 41,14 | 46,22 | 80,63 | 17,31 | 37,66 | 45,37 |
| Ukraine | 86,59 | 11,43 | 34,99 | 53,98 | | | | |
| OECD | 85,99 | 12,12 | 56,79 | 38,69 | 84,02 | 13,48 | 47,02 | 44,74 |
| China | 76,67 | 22,06 | 29,91 | 55,95 | 62,19 | 33,00 | 21,55 | 51,96 |
| Turkey | 97,53 | 2,05 | 70,47 | 27,64 | 87,17 | 11,95 | 55,40 | 36,61 |
| T-Test: TEs vs. OECD* | 0,49 | 0,46 | 0,00 | 0,00 | 0,07 | 0,08 | 0,00 | 0,05 |
| <i>Correlate with Trust**</i> | | | | | | | | |
| TEs | -0,08 | 0,07 | -0,01 | 0,16 | -0,03 | -0,01 | 0,00 | 0,11 |
| OECD | 0,16 | -0,20 | 0,43 | -0,30 | 0,53 | -0,56 | 0,79 | -0,68 |
| All | -0,16 | 0,17 | 0,35 | -0,22 | 0,22 | -0,25 | 0,57 | -0,41 |
| All*** | 0,01 | -0,02 | 0,60 | -0,45 | 0,45 | -0,47 | 0,81 | -0,59 |

Notes:

Numbers in columns are percentage shares of respondents who consider family (friends) as very (rather) important.

* T-test reports P-value for difference in sub-group means; 0.00 means statistically significant at more than 1% level.

** Trust is measured as in Table 2. All correlations significant at 5% level are shown in bold.

*** All countries without China and Turkey.

Source: *World Values Survey 1990, 1995*.

Table 4. Civic participation, 1995

| | Share of active participants in institutions, % | | | | | | | | | Type I* | Type II** |
|--|---|--------------|--------------|-------------|-------------|-------------|--------------|-------------|-------------|--------------|--------------|
| | Church | Sports | Arts | Unions | Parties | Environment | Professional | Charity | Other | | |
| Transition economies | 5,38 | 5,25 | 3,75 | 3,75 | 2,49 | 0,90 | 2,72 | 1,45 | 2,06 | 12,08 | 9,13 |
| Albania | 4,82 | 5,12 | 3,32 | 1,61 | 13,17 | 0,81 | 4,94 | 0,81 | 0,40 | 10,75 | 19,72 |
| Armenia | 1,45 | 5,05 | 8,15 | 1,25 | 1,15 | 1,15 | 2,35 | 1,60 | 0,35 | 8,10 | 4,75 |
| Azerbaijan | 1,50 | 1,55 | 2,10 | 2,80 | 1,80 | 0,25 | 0,85 | 0,25 | 0,05 | 3,30 | 5,44 |
| Belarus | 2,34 | 1,91 | 1,63 | 2,39 | 0,43 | 0,53 | 0,14 | 0,19 | 0,57 | 4,45 | 2,96 |
| Bulgaria | 0,84 | 1,68 | 1,68 | 4,94 | 2,24 | 0,19 | 0,56 | 0,75 | 0,47 | 3,26 | 7,74 |
| Croatia | 16,29 | 10,67 | 6,64 | 6,06 | 2,77 | 1,43 | 6,13 | 4,70 | 4,28 | 31,66 | 14,97 |
| Czech Republic | 4,72 | 11,20 | 3,42 | 3,32 | 2,54 | 1,49 | 3,60 | 1,14 | 7,90 | 17,06 | 9,46 |
| Estonia | 2,35 | 5,78 | 5,19 | 1,18 | 0,59 | 0,39 | 1,27 | 0,59 | 1,37 | 8,72 | 3,04 |
| Georgia | 2,20 | 3,28 | 5,56 | 1,47 | 2,59 | 0,58 | 1,54 | 1,31 | 0,58 | 6,80 | 5,60 |
| Hungary | 9,40 | 8,31 | 2,15 | 8,00 | 2,62 | 0,62 | 6,00 | 2,46 | 5,54 | 20,17 | 16,62 |
| Latvia | 3,50 | 5,08 | 5,00 | 1,92 | 0,75 | 0,83 | 3,25 | 0,67 | 1,58 | 9,25 | 5,92 |
| Lithuania | 3,47 | 2,78 | 2,98 | 1,09 | 1,09 | 0,40 | 1,19 | 0,60 | 0,43 | 6,85 | 3,38 |
| Macedonia | 4,42 | 6,03 | 4,62 | 4,92 | 5,73 | 2,31 | 4,32 | 3,22 | 2,81 | 13,67 | 14,97 |
| Moldova | 12,50 | 4,17 | 4,78 | 5,89 | 0,91 | 1,32 | 1,73 | 1,52 | 0,00 | 18,19 | 8,54 |
| Poland | | | | 2,08 | 0,52 | | | | | | |
| Romania | 14,85 | 4,28 | 4,20 | 10,41 | 5,08 | 2,26 | 3,71 | 2,02 | 0,24 | 21,15 | 19,21 |
| Russia | 1,86 | 3,33 | 3,28 | 7,21 | 0,78 | 0,44 | 0,88 | 0,54 | 0,54 | 5,74 | 8,87 |
| Serbia + Montenegro | 2,31 | 5,59 | 1,97 | 1,97 | 3,29 | 0,46 | 2,96 | 1,84 | 1,25 | 9,74 | 8,23 |
| Slovakia | 9,43 | 7,25 | 2,02 | 2,41 | 2,20 | 1,10 | 3,21 | 1,47 | 6,42 | 18,15 | 7,83 |
| Slovenia | 7,27 | 10,26 | 4,49 | 4,59 | 1,30 | 0,80 | 4,88 | 2,89 | 6,29 | 20,42 | 10,77 |
| Ukraine | 2,03 | 1,67 | 1,74 | 3,13 | 0,64 | 0,57 | 0,85 | 0,46 | 0,18 | 4,16 | 4,62 |
| OECD | 17,13 | 24,32 | 14,06 | 8,10 | 5,24 | 3,54 | 9,28 | 9,45 | 9,30 | 43,52 | 20,99 |
| China | | | | 10,07 | 5,73 | 5,87 | 6,40 | 2,40 | 2,27 | 2,87 | 12,67 |
| Turkey | | | | 1,23 | 4,10 | 3,25 | 2,56 | 4,74 | 1,33 | 5,38 | 2,40 |
| | | | | | | | | | | 2,19 | 7,73 |
| | | | | | | | | | | | 12,68 |
| <i>T-test: TEs vs. OECD</i> | 0,03 | 0,00 | 0,00 | 0,01 | 0,06 | 0,01 | 0,01 | 0,01 | 0,00 | 0,00 | 0,01 |
| <i>Correlation with cumulative growth 89-98***</i> | 0,35 | 0,64 | -0,17 | 0,12 | 0,16 | 0,22 | 0,57 | 0,30 | 0,75 | 0,51 | 0,42 |

Notes:

* Type I is the sum of participants in Church, sport clubs and charity organisations.

** Type II is the sum of participants in political parties, trade unions and professional organisations.

*** Correlations are with average growth 1989-1998 for TEs economies only.

Correlations significant at the 5% level are shown in bold.

Source: *World Values Survey* 1995.

Table 5. Trust in formal institutions, 1995

| | Confidence in institution | | | | | | | | | | | | | | RoL* | |
|--|---------------------------|------|-------|-------|-------|--------|--------|---------|---------|---------|---------|--------|---------|-------|-------|------|
| | Church | Army | Legal | Press | TV | Unions | Police | Govern- | Parties | Parlia- | Civil | Com- | Ecology | Women | Euro- | |
| | System | | | | | | | ment | | ment | Service | panies | mov. | mov. | pean | |
| Transition economies | 2.68 | 2.68 | 2.35 | 2.28 | 2.41 | 2.09 | 2.32 | 2.32 | 1.91 | 2.17 | 2.30 | 2.29 | 2.49 | 2.32 | 2.54 | 2.45 |
| Albania | 2.61 | 2.68 | 2.65 | 1.99 | 2.17 | 1.82 | 2.94 | 2.39 | 2.05 | 2.61 | 1.99 | 2.04 | 1.58 | 2.10 | 3.34 | 2.75 |
| Armenia | 2.84 | 2.93 | 2.08 | 2.16 | 2.33 | 1.82 | 2.07 | 2.25 | 1.75 | 1.95 | 2.17 | 2.41 | 2.33 | 1.95 | 2.58 | 2.36 |
| Azerbaijan | 2.82 | 2.59 | 2.43 | 2.07 | 2.20 | 2.12 | 2.39 | 3.30 | 2.55 | 2.92 | 2.33 | 2.25 | 1.72 | 1.75 | 1.91 | 2.47 |
| Belarus | 3.00 | 2.95 | 2.45 | 2.31 | 2.42 | 2.33 | 2.21 | 2.49 | 1.77 | 2.05 | 2.48 | 2.75 | 3.00 | 2.84 | 2.77 | 2.54 |
| Bulgaria | 2.60 | 3.15 | 2.23 | 2.37 | 2.79 | 2.13 | 2.47 | 2.62 | 2.07 | 2.35 | 2.42 | 2.15 | 2.32 | 2.35 | 2.88 | 2.61 |
| Croatia | 2.66 | 3.02 | 2.54 | 2.08 | 2.07 | 2.05 | 2.69 | 2.53 | 2.05 | 2.37 | 2.32 | 2.13 | 2.55 | 2.07 | 2.18 | 2.75 |
| Czech | 2.11 | 2.33 | 2.09 | 2.34 | 2.45 | 2.27 | 2.36 | 2.11 | 1.87 | 1.91 | 2.24 | 2.24 | 2.54 | 2.26 | 2.39 | 2.26 |
| Estonia | 2.61 | 2.39 | 2.62 | 2.52 | 2.74 | 2.30 | 2.42 | 2.43 | 1.93 | 2.32 | 2.61 | 2.60 | 2.94 | 2.71 | 2.67 | 2.47 |
| Georgia | 3.00 | 2.43 | 2.29 | 2.51 | 2.53 | 1.91 | 2.07 | 2.33 | 2.02 | 2.15 | 2.41 | 2.36 | 2.22 | 2.16 | 2.53 | 2.26 |
| Hungary | 2.35 | 2.62 | 2.51 | 2.11 | 2.33 | 1.93 | 2.55 | 2.33 | 1.89 | 2.25 | 2.51 | 2.18 | 2.32 | 2.09 | 2.73 | 2.56 |
| Latvia | 2.70 | 2.07 | 2.23 | 2.43 | 2.55 | 2.16 | 2.11 | 2.20 | 1.68 | 1.99 | 2.35 | 2.36 | 2.65 | 2.44 | 2.55 | 2.14 |
| Lithuania | 2.82 | 2.36 | 2.10 | 2.73 | 2.80 | 2.20 | 2.01 | 2.31 | 2.01 | 2.17 | 2.36 | 2.26 | 2.59 | 2.38 | 2.50 | 2.16 |
| Macedonia | 2.20 | 2.39 | 2.08 | 2.00 | 2.07 | 1.79 | 2.08 | 1.83 | 1.72 | 1.76 | 1.91 | 2.06 | 2.31 | 2.08 | 2.34 | 2.19 |
| Moldova | 3.05 | 2.60 | 2.45 | 2.22 | 2.40 | 2.15 | 2.11 | 2.29 | 1.83 | 2.23 | 2.51 | 2.41 | 2.47 | 2.38 | 2.85 | 2.39 |
| Poland | 2.90 | 3.00 | 2.54 | 2.45 | 2.46 | 2.06 | 2.53 | 2.30 | 1.79 | 2.21 | 2.24 | 2.51 | 2.97 | 2.53 | 2.64 | 2.69 |
| Romania | 3.21 | 3.15 | 2.44 | 2.24 | 2.48 | 2.15 | 2.28 | 1.96 | 1.76 | 1.92 | 2.11 | 2.22 | 2.46 | 2.32 | 2.46 | 2.62 |
| Russia | 2.79 | 2.89 | 2.29 | 2.30 | 2.41 | 2.28 | 2.09 | 1.95 | 1.86 | 1.92 | 2.41 | 1.85 | 2.96 | 2.81 | 2.45 | 2.42 |
| Serbia + Montenegro | 2.22 | 2.75 | 2.45 | 2.04 | 2.07 | 2.02 | 2.39 | 2.24 | 1.84 | 2.16 | 2.21 | 2.20 | 2.47 | 2.15 | 1.91 | 2.53 |
| Slovakia | 2.67 | 2.75 | 2.32 | 2.37 | 2.48 | 2.21 | 2.29 | 2.31 | 2.00 | 2.10 | 2.29 | 2.17 | 2.49 | 2.41 | 2.54 | 2.45 |
| Slovenia | 2.27 | 2.41 | 2.27 | 2.39 | 2.56 | 2.05 | 2.46 | 2.34 | 1.80 | 2.05 | 2.17 | 2.33 | 2.62 | 2.40 | 2.37 | 2.38 |
| Ukraine | 2.85 | 2.79 | 2.34 | 2.33 | 2.41 | 2.20 | 2.17 | 2.29 | 1.85 | 2.18 | 2.32 | 2.53 | 2.70 | 2.64 | 2.64 | 2.43 |
| OECD | 2.44 | 2.69 | 2.60 | 2.23 | 2.35 | 2.33 | 2.87 | 2.26 | 2.04 | 2.29 | 2.38 | 2.47 | 2.60 | 2.40 | 2.24 | 2.72 |
| Turkey | 2.67 | 3.59 | 2.86 | 2.46 | 2.44 | 2.47 | 2.84 | 2.30 | 1.93 | 2.35 | 2.69 | 2.62 | 3.18 | 2.99 | 2.43 | 3.10 |
| T-test: TEs vs. OECD ** | 0.05 | 0.47 | 0.01 | 0.27 | 0.23 | 0.00 | 0.00 | 0.27 | 0.02 | 0.09 | 0.07 | 0.01 | 0.14 | 0.18 | 0.00 | 0.00 |
| Correlation with NDB (1996) | 0.88 | 0.79 | 0.30 | 0.22 | -0.05 | -0.02 | 0.63 | 0.04 | 0.42 | 0.15 | -0.47 | -0.77 | | | | |
| Correlation with BEEPS (1999) | 0.30 | 0.37 | | | | | 0.50 | 0.73 | | 0.71 | | | | | | |
| Correlation with BEEPS RoL*** | 0.27 | 0.12 | | | | | 0.57 | | | | | | | | 0.44 | |
| Correlation with cumulative growth 1989-98 | -0.34 | 0.05 | 0.19 | | | | 0.54 | | -0.14 | | | | | | 0.33 | |

Notes:

Table reports mean scores, on a scale of 1 (low confidence) to 4 (high confidence)

* Average of scores for confidence in legal system, police and army.

** T-test reports P-values for difference in means; 0.00 mean statistically significant at more than 1% level.

*** Percentage of respondents who believe that their contract and property rights will be upheld by the courts.

Source: *World Values Survey* 1995; *New Democracies Barometer* 1996; *Business Environment and Enterprise Performance Survey* 1999.

Table 6. Trust in formal institutions and civic participation

| Simple correlations | Civic Participation | |
|-----------------------------------|---------------------|---------|
| | Type I | Type II |
| Confidence in* | | |
| legal system | 0,21 | 0,30 |
| police | 0,37 | 0,57 |
| army | 0,06 | 0,22 |
| political parties | -0,19 | -0,09 |
| church | -0,22 | -0,22 |
| WBES Confidence in legal system** | 0,30 | 0,16 |
| NDB average trust*** | 0,84 | 0,74 |

Notes:

Type I is the sum of participation in churches, sports clubs and charities.

Type II is the sum of participation in political parties, unions and professional associations

* Source: *World Values Survey* 1995.

** Source: *Business Environment and Enterprise Performance Survey* 1999.

*** Source: *New Democracies Barometer*, 1996; average of trust in legal system, police, army, political parties, church.

Table 7. Initial conditions, social capital and growth (simple correlations)

| Initial Conditions | Type I Groups | Type II Groups | WBES investment climate | WBES legal system | Confidence in RoL (WVS) | Cumulative growth 1989–1998 |
|--|------------------|-------------------|-------------------------------|----------------------|-------------------------------|-----------------------------------|
| GINI coefficient for income p.c. 1987–1990 | 0,17 | 0,04 | -0,27 | 0,11 | 0,34 | -0,35 |
| GINI coefficient for income p.c. mid 1990s | -0,42 | -0,37 | -0,27 | -0,26 | -0,22 | -0,60 |
| Ethnic heterogeneity index mid-1990s | -0,18 | -0,49 | -0,13 | -0,35 | -0,57 | -0,50 |
| Religion* | 0,43 | -0,11 | 0,71 | 0,43 | -0,15 | 0,59 |
| Distance to Brussels | -0,56 | -0,33 | -0,23 | -0,03 | -0,16 | -0,70 |
| Exports to CMEA/GDP 1990 | -0,66 | -0,83 | 0,05 | -0,24 | -0,34 | -0,37 |
| Natural resource endowment* | -0,35 | -0,09 | -0,31 | -0,10 | 0,08 | -0,25 |
| GDP per capita at PPP 1990 | 0,30 | -0,15 | 0,57 | 0,13 | -0,32 | 0,47 |
| Urbanisation rate 1990 | -0,42 | -0,60 | 0,38 | -0,13 | -0,40 | -0,06 |
| Years under central planning | -0,63 | -0,56 | -0,21 | -0,38 | -0,23 | -0,62 |
| Established sovereign nation* | 0,34 | 0,82 | -0,03 | 0,27 | 0,60 | 0,51 |

Notes:

Correlations printed in bold are significant at the 5% level.

Type I is the sum of participation in churches, sports clubs and charities.

Type II is the sum of participation in political parties, unions and professional associations

* Defined as dummy variables: religion = dominant religion is western Christianity; natural resources: 2 = rich, 1 = moderate, 0 = poor

Established nation state: 2 = historical sovereign nation, 1 = autonomous part of historical nation (e.g. Czech lands, Russia), 0 = new nation state

Sources:

Data for initial conditions come from de Melo et al. (1997) for 'exports to the CMEA', 'natural resource endowment', the 'urbanisation rate', 'years under central planning' and 'established sovereign nation'.

Data for the GINI coefficients are from Atkinson and Micklewright (1992) for 1987–1990 and from UNICEF (1999) for mid-1990s.

Ethnic heterogeneity index and the dummy for religious affiliation were calculated based on data from the Europa World Yearbook (1999).

Distance to Brussels and GDP per capita in 1990 are taken from EBRD's database, as reported in Transition Report 1999.

Table 8. Social capital, reforms and performance: regression results; dependent variable: cumulative growth 1989–1998

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|---------------------|---------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| Constant | -1.53*** (0.41) | -1.91*** (0.30) | -0.85 (0.98) | -2.62*** (0.47) | -1.93*** (0.48) | -2.15*** (0.42) | -1.53*** (0.41) |
| Type I groups (Civic) | 0.021*** (0.007) | | -0.026 (0.576) | | 0.007 (0.007) | | 0.02** (0.007) |
| Type II groups (Civic) | | 0.040*** (0.011) | | 0.11*** (0.03) | | 0.029** (0.011) | |
| Quality of investment climate (Trust) | 0.57* (0.27) | 0.75*** (0.18) | 0.095 (0.662) | 1.25*** (0.34) | 0.31 (0.34) | 0.50 (0.29) | 0.57* (0.27) |
| Type I*Trust | | | (0.038) | | -0.05* (0.02) | | |
| Type II*Trust | | | | | 0.46 (0.27) | 0.35 (0.25) | |
| EBRD reform index (average 1989–1998) | | | | | | | 0.46 (0.27) |
| EBRD reform index (residual) | | | | | | | |
| Adjusted R-squared | 0.42 | 0.56 | 0.45 | 0.60 | 0.52 | 0.63 | 0.52 |
| Number of observations | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| Sargan test for valid instruments (X-square) | 0.08 (0.00) | 0.06 (0.00) | 0.09 (0.00) | 0.17 (0.00) | 0.004 (0.00) | 0.23 (0.00) | 0.23 (0.00) |
| Hausmann test OLS vs. IV (F-stat) | 1.56 (0.23) | 0.00 (0.95) | 1.04 (0.32) | 0.01 (0.92) | 0.76 (0.40) | 0.15 (0.71) | 0.76 (0.39) |

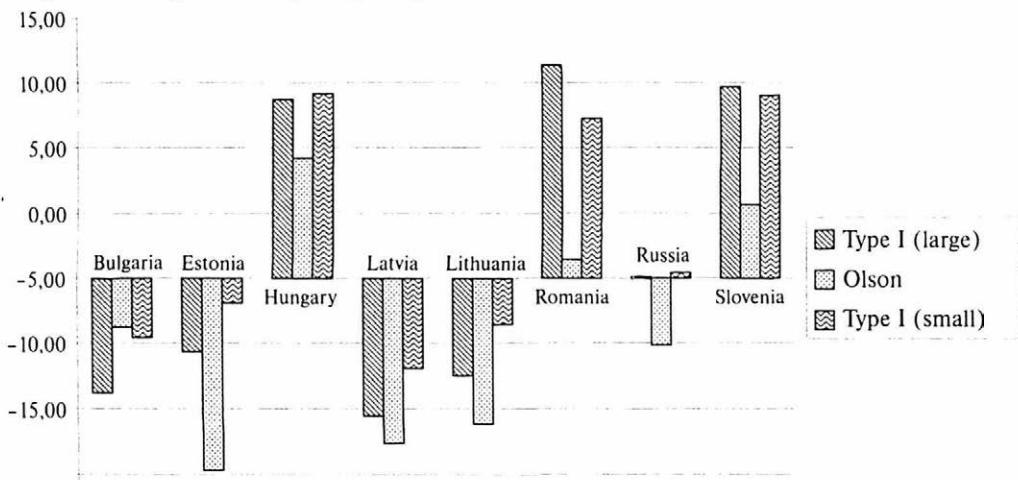
Notes:

The regressions use simple OLS. All results were checked using Two Stage Least Squares and Exports to the CMEA and the Urbanisation Rate as instruments. The coefficient estimates for civic participation tend to increase in the TSLS estimations but all other results remain unaffected.

* = 10% significance, ** = 5% significance, *** = 1% significance

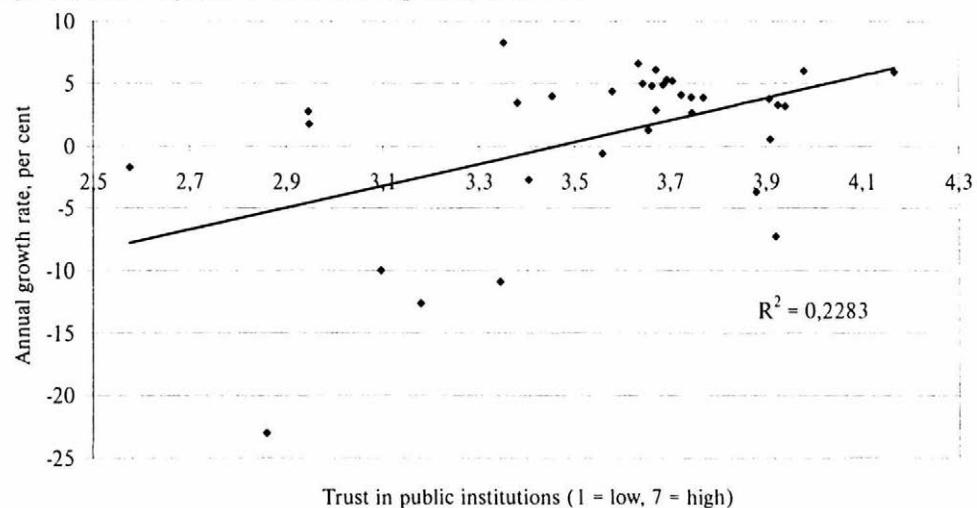
In column 7, the residual of a regression of EBRD reform index against Type II group participation is used as a measure of reform to get rid of multicollinearity. The Sargan test rejects the null hypothesis that the instruments do not belong into the regression on their own right for X-square values higher than a critical level. The Hausman test accepts the null hypothesis that IV is preferred over OLS for F-values above a critical level.

Source: Own estimates.

Figure 1. Changes in civic participation, 1990–1995**Notes:**

Type I (large) is the sum of participation in churches, sports clubs, arts clubs, environmental associations and charities. Type I (small) excludes arts clubs and environmental associations. Type II is the sum of participation in political parties, unions and professional associations

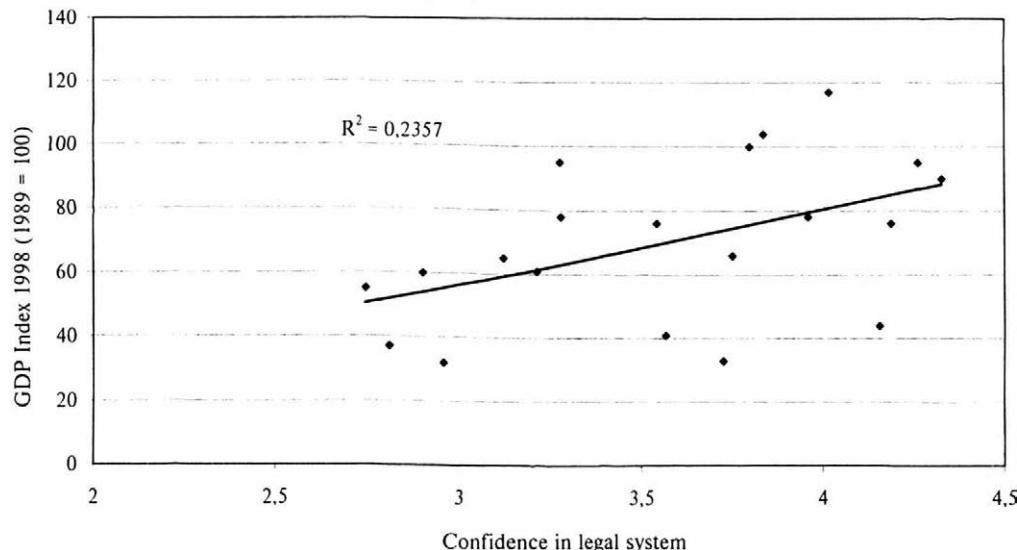
Source: *World Values Survey* 1990 and 1995.

Figure 2. Trust in public institutions and growth, 1993–1998**Notes:**

The figure represents a correlation of trust in public institutions against growth pooled over the four years: 1993, 1994, 1996 and 1998. Each dot represents one country in one of these four years.

Sources: *New Democracies Barometer* 1993–1998; for growth EBRD database.

Figure 3. Growth and confidence in the legal system in late 1990s



Notes:

Confidence in the legal system is measured on an index of 1 (low) to 5 (high). It provides the mean response to the question whether respondents trusted the legal system to enforce their contract or property rights.

Sources: *Business Environment and Enterprise Performance Survey for Confidence in Legal System*; *EBRD database for cumulative growth*.