

## ***Losing Jobs in Crisis: Impact on Corruption Experience, Perception and Trust in Fighting Corruption***

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### ***Abstract***

This paper compares Slovakia and Slovenia in terms of investigating causal relationships between the corruption experience and corruption perception and their impact on the trust in public institutions' performance in fighting corruption. Additionally, the study examines how these relations are influenced by the personal impact of the financial crisis. The main contribution of the paper is that it analyses the Eurobarometer microdata from September 2011, the time of the "eurocrisis." Another novelty this paper brings is the specific dimension of institutional trust that has not been investigated before: the trust in state's institutions' fight against corruption. The added value is also in

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the method we use, Structural Equation Modeling, which allows separating different causal paths between the corruption perception, corruption experience, institutional trust, crisis and other variables. The SEM method also allows us to model and estimate the reverse causation between the corruption perception and the trust in institutions' anti-corruption performance. Additionally, we disentangle direct and indirect causal paths influencing the trust. The findings suggest that the personal impact of crisis does not have direct influence on the corruption perception. The influence of job loss effect on the anti-corruption trust is statistically significant only in Slovakia. We found the direct influence of corruption experience on corruption perception also only in Slovakia. Regarding the relationship between the corruption perception and the anti-corruption trust, the analysis shows that it is the latter one that influences the former.

**Keywords:** Corruption Perception, Corruption Experience, Trust, Anti-corruption Measures, Slovakia, Slovenia, Crisis

## 1. INTRODUCTION

Corruption has been gaining an increasing attention by media, politicians, policy-makers and thus it is hardly surprising that the academic research of corruption is growing as well. While some authors focus on explaining corrupt behaviour (e.g. Tavits, 2010), others

investigate the effects corruption has on economy (Uslaner, 2007), society (dellaPorta, 2000; Pharr, 2000) or politics (Mishler& Rose, 2005). Considerable amount of research is also devoted to the relationship between the corruption and trust (Anderson &Tverdova, 2003; Chang & Chu, 2006; Hakhverdian& Quinton, 2012). Li and Wu (2010) showed how the trust, corruption and economic growth are interdependent.

This study focuses on distinct dimensions of corruption and relationships among them. In this study we differentiate between the corruption perception and corruption experience and include both of them into our investigation. In addition we link these two to a special kind of trust: the trust in public institutions' anti-corruption performance. Although distinct types of trust, mainly personal and political/institutional have been investigated before (see Anderson &Tverdova, 2003; Dalton 2004; Chang & Chu, 2006, Hakhverdian& Quinton, 2012; Wroe, Allen & Birch, 2013; etc.) we have not found any similar research that would narrow down the institutional trust in this particular way.

Another contribution of this paper is that we not only separate the corruption perception from experience, but also disentangle the previously suggested reverse causation between the corruption perception and trust (dellaPorta, 2000; Wroe et al., 2013). Additionally, we investigate the influence that a personal experience with the financial crisis, in a form of a job loss, might have on the corruption dimensions.

In this paper we use the Eurobarometer micro-data that is not so frequently used. However, it provides several items on corruption and thus allows

us separating the three dimensions. We apply structural equation modelling techniques to estimate direct and direct effect as well as the reverse causal relationships.

Structure of the paper is as follows. After introduction we review the theories linking corruption and trust. In the following section we discuss the distinction between the corruption perception and corruption experience. Subsequently we define our variables, describe data and method in a more detailed way and discuss the instrumental variables employed in the model. What follows is the empirical analysis and presentation of the results. Before concluding we discuss the main contribution of this study as well as limitations encountered.

## **2. TRUST AND CORRUPTION**

The link between the trust and corruption has been very well documented in the previous research. The voluminous amount of literature focuses on the effect of corruption on the general trust towards political institutions (Mauro, 1995; Knack & Keefer, 1995; LaPorta et al., 1999; Pharr & Putnam 2000; Seligson, 2002; Rose-Ackerman, 2004; Clausen, Kraay&Nyiri, 2011; Hakhverdian& Quinton, 2012; and others). There is a consensus among scholars, that corruption has a negative effect on the trust in government, political parties or other political institutions or actors. Previous research that proves the relationship between the corruption and general political trust is large and convincing enough so that we feel no need to go into much details

on this place.

In addition to general trust in political institutions, several scholars investigated the link between corruption and specific elements of trust, or trust in particular sectors of public sphere. As the previous research shows, higher corruption apparently leads also to lower trust in civil servants and state administration (Tverdova& Anderson, 2003; Hacek, Kukovic&Brezovsek, 2013), lower evaluation of the performance of and trust towards justice system and police (Kaariainen, 2007) and decrease satisfaction with public services (Bratton, 2007). Kaufmann and Wei (1999) analysed firm-level data and found that the increased level of corruption leads to more time that managers waste with state officials.

However, the causal path does not necessarily lead solely from the corruption perception to the political trust. Several authors have analysed the opposite causal relation recently. Wroe, Allan and Birch (2013) claim that they excluded the possible causal mechanism from the corruption perception to the political trust by two factors: temporal order of the respective items in the questionnaire and the hypothetical nature of the corruption perception items (for further details see Wroe et al. 2013, p. 182). Using the OLS regression, authors found the effect of the political trust on the corruption perception. However, they admit that there is a possibility that “respondents’ level of trust will have been influenced by their previous real-life perceptions of corruption” and thus the effect represents more the “quasi-experimental setting” of the data set “rather than the real world” (2013, p. 182)

Chang and Chu addressed the problem of mutual effect of the two phenomena in Asian countries differently. Authors employed the structural equation modelling and they modelled both of the causal effects simultaneously. As well as Wroe et al. (2013), the authors found the influence of the institutional trust on the corruption perception and concluded that there is a “vicious circle between corruption and institutional trust” and the two reinforce each other. Morris and Klesner (2010) focused on Mexico and approached the endogeneity problem in the same fashion as the previous authors. Additionally, they included also the interpersonal trust in the analysis. They conclude that the corruption perception does not influence interpersonal trust. However, they confirmed the incidence of the “vicious circle that perpetuates corruption, the perception of corruption, and low levels of trust” (2010, p. 1275). Babos (2012) attempted to isolate the one-way causal link leading from corruption experience to political trust by employing the multi-level modelling and operationalization of the concepts. The trust towards political institutions was based on the individual level questionnaire, while the corruption perception was operationalized at national level using the Transparency International’s CPI. By definition, there is no causal mechanism that would explain how the individuals’ replies in the survey would influence the country experts’ opinion on the corruption perception, considering the country experts might not even be familiar with the opinion poll or its results. Babos (2012) found the effect of corruption perception on political trust at about the same

magnitude as Anderson & Tverdova having more than 10 years gap between the collection of the respective datasets.

### **3. CORRUPTION EXPERIENCE vs. PERCEPTION**

Clausen, Kraay and Nyiri (2011) published an exhaustive study on the relation between the corruption's perception, corruption experience and trust towards public institutions (military, judicial system, national governments and fairness of elections). Their findings show that the corruption in both forms decreases public confidence in the state institutions. However, the lowering effect of the corruption's perception is three times larger than the personal experience of the corrupted behaviour. As noted above, Morris and Klesner (2010) also highlighted the intertwined role of the corruption experience and perception in regard to institutional trust.

Olken (2009) studied the relationship between the corruption perception and corruption reality in Indonesian villages. He concluded that the link between the corruption perception and corruption reality (measured as 'missing expenditures') is rather weak. However, an important finding of Olken is that, in their perception, people can distinguish between the probability of general corruption in the country/district and corruption related to the specific project. The importance of this finding lies in the fact that it casts the shadow on the intuitive link between the corruption experience and perception. According to the logic of Olken's study, if

people distinguish between the general corruption and the corrupt behaviour in a particular situation, there is no reason why experience with corrupt behaviour should automatically lead to higher corruption perception in general.

As it is clear, some of the authors confirmed that there is a link between the corruption experience and perception (e.g. Clausen et al. 2011), while others provide contradicting evidence (Olken 2009) arguing that people distinguish the general perception of corruption from the corruption specific to a project or an issue in their village or district.

We address this problem in the following way. Our analysis tests distinct causal paths leading from the corruption experience to the corruption-fighting trust. Firstly, we will model the direct causal influence between the two variables. Secondly, the model will test also an indirect causal path from corruption experience to the anti-corruption trust, leading through the corruption perception. Additionally, the model will also include the reverse causation leading from the anti-corruption trust towards the corruption perception. Actual method is discussed in further details in the section below.

Regarding the hypotheses, it is not easy to draw hypotheses for several reasons. Firstly, the previous research provides often contradictory or no evidence regarding the relationships we study. Since our focus is on a particularly narrow dimension of the institutional trust, to the best of our knowledge, there is no previous study exploring these dimensions. Therefore we cannot base our expectations on the previous research.



However, intuitively one could expect that higher corruption perception might decrease the trust in public institutions' anti-corruption measures. Therefore we will not speak about the hypotheses, but about our expectations. Regarding the two dimensions of corruption, experience vs. perception, the evidence is mixed. Additionally, none of the previous research focused particularly on Central Eastern Europe, which we do in this paper. Therefore we consider our research rather exploratory in this regard and therefore will not draw explicit hypotheses.

#### **4. DATA AND METHODS**

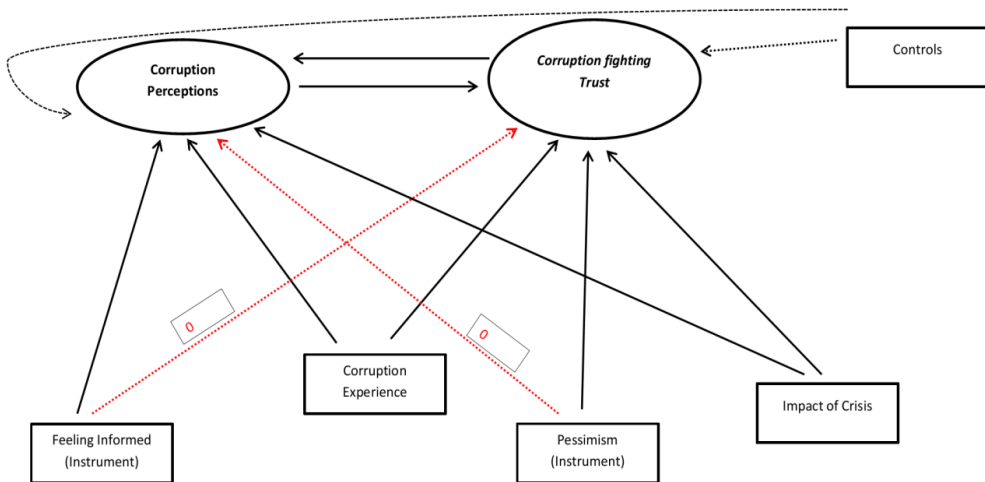
##### *Conceptual Diagram*

In order to estimate the strength of the expected relationships we employ the structural equation modelling. This method is especially appropriate in situations when the latent factors and/or reverse causation are present in the analysis (Hoyle, 1995). One of the advantages of the SEM is that it allows disentangling the reverse causation and separate direct from indirect causal paths. The SEM estimates a set of regression equations while it adjusts the standard errors according to specified mutual relations among the variables. As the estimation method we use maximum likelihood.

Conceptual diagram below shows the set of expected and tested relations, while simultaneously it represents the estimated equations. The observed variables are in squares, latent factors are depicted as an ellipse. For better readability the diagram does not show the error terms

associated with the observed variables. The arrows indicate the expected causal relationships between variables.

**Figure 1: Conceptual Diagram for Structural Equation Model**



Briefly, what this diagram shows is a set of the expected causal relationships. According to it, the corruption experience should influence the corruption perception and the trust in anti-corruption performance. The job loss due to the crisis is expected to increase the corruption perception and decrease the trust in anti-corruption measures. The diagram also depicts the reverse causality between the corruption perception and trust.

In order to model and estimate the reverse causation we need instrumental variables. Consider our case – the reverse causality is expected between the corruption perception and corruption fighting trust. Instrumental variables should then, in theory, be related to the

corruption perception but not to the trust, and the second instrument vice versa. As the instrumental variables we use the following. Firstly, the level to which a respondent feels he is informed about the corruption in a country. This level of informedness is related to the corruption perception, however, not to the anti-corruption trust. Secondly, there is the question asking about respondent's opinion on the future economic development. Since the economic indicators and forecasts are given and same for all within a country, we label this item as respondent's pessimism. Person's pessimism is then, in theory, related to the trust in anti-corruption performance and not related to the perception corruption. Section below discusses the dataset we use and operationalization of the main variables of interest.

#### *Data and Variables*

This study makes use of the Eurobarometer microdata from September 2011. The survey included a special module on corruption and asked several questions regarding the corruption perceptions, experience and trust in state institutions' anti-corruption performance. This allows us to investigate the relations among different dimensions of corruption and the corruption-related institutional trust. Additionally, the survey includes also items on the financial crisis and thus enables analysing how the personal impact of the financial crisis conditions the relationship between corruption and institutional trust.

Regarding the corruption related variables, we use one original survey item and two constructed variables. For the corruption perception the

survey asks respondents if they think “that the giving and taking of bribes, and the abuse of positions of power for personal gain, are widespread” (Eurobarometer 2011) in any of the 13 listed sectors (e.g. police, justice, health, education, etc.). Respondents can answer either yes or no. We use these answers to construct a variable representing person’s perception of corruption by adding up the number of positive responses on the corruption perception in the individual sector.

The variable indicating a direct personal experience with corruption is based on a similar question. The survey asks whether, within the last 12 months, has anyone asked the respondent or expected the respondent, to pay a bribe for any service in the same 13 sectors as used in the perception question. If a respondent replied yes to any of the options, indicating that she was asked or expected to give a bribe in one of the sectors then such a person would have “yes value” on our corruption experience variable. In other words, our constructed variable indicates whether a person was, at least once over the last 12 months, asked or expected to pay a bribe regardless of who might be the bribe-taker.

Our analytical model treats the trust in the public institutions’ anti-corruption performance as a latent factor. The questionnaire includes several items that ask respondents about their opinion on different measures of the state that are supposed to eliminate corruption. In our model, we include four items asking about the efficiency of governmental efforts to fight corruption, successful prosecutors, court

sentences and the transparency and supervision of the financing of political parties.

We define the personal impact of the crisis as a loss of job of a respondent or his/her family member as a direct consequence of the crisis. We acknowledge that this indicator is slightly problematic due to the fact that it is self-reported. It might well have happened that a person blames the crisis for a job loss although the true reason might lie elsewhere. However, out of available measures in the questionnaire, we find the job loss to be most likely to influence one's behaviour and / or attitudes, compared to the general self-reported impact of the crisis or opinion on how economy is doing.

For the control variables we use both the standard demographic variables (age, gender, education) and some specific variables that are closely related to the topic under investigation (social level, left-right political orientation, level of informedness, etc.). The list of all the variables included in the model, together with the basic descriptive characteristics is listed in the Appendix 1.

## **5. EMPIRICAL ANALYSIS**

Before presenting the SEM estimation results we will briefly inspect some of the descriptive statistics. It seems that people in Slovenia are perceiving corruption to be more widespread than in Slovakia, with the mean score of 8.218 and 5.556, respectively. On the other hand, the direct experience with bribery seems to be much more encountered (or

at least admitted having been encountered) in Slovakia. More than 30% of respondents admitted that they have been asked or expected to pay a bribe. There are only 7.64% respondents admitting the same in Slovenia. In Slovenia, on average, also more people claim to be informed about the corruption in their country, compared to Slovakia. In the former it is almost 50% of people, while 41.4% in the latter. As for the main socio-demographic variables, the two countries appear to be very similar, with the only one exception being the job loss as a direct consequence of the crisis. In Slovenia, about 26% of people claimed that they or their family member lost a job due to the crisis. In Slovakia there were more than 41% of such respondents. The full table with descriptive statistics listed separately for Slovenia and Slovakia is in Appendix 2.

The results of empirical analysis can be presented in different ways, either in a form of a conceptual diagram with the regression coefficients filled in, table with the regression coefficients or table with the direct, indirect and total effects the predictors have. Since the main goal of our analysis is to explore and test the specified relationships in a comparative perspective, we present the results in a form of a table with the regression results (table 1 below). Table with all the direct, indirect and total effects is in Appendix 3.

Table 1 presents three different model estimations. Although the model specification remains the same across models, the sample varies. The first model includes the pooled sample of Visegrad group countries (Hungary, Poland, the Czech Republic and Slovakia). Two remaining

models represent national samples of Slovenia and Slovakia, respectively.

**Table 1: Regression coefficients for selected models**

Dependent Variable	Predictor	V4	Slovenia	Slovakia
Perception for bribe informed Job Loss Social Level Left-Right Age Male Education A-C Trust	Asked	0,480*	1,345	0,562
		*		(a)
	Feeling	0,604*	2,048	0,804
		**	**	**
		0,344*	-	0,100
			0,446	
	Social	0,062	-	-
	Level		0,317	0,040
	Left-	-0,019	-	0,073
	Right		0,196	
	Age	-	-	-
		0,015***	0,016	0,016 <sup>(a)</sup>
	Male	-0,128	0,960	-
		(a)	0,247	
Educati	0,006	-	0,022	
on		0,007		
A-C	0,997*	3,627	1,036	
Trust	**	(a)	(a)	

<b>Trust</b>	Asked	0,125	0,113	0,327
	for bribe			
	Pessimis	0,489*	0,241	0,313
	m	**	*	**
	Social	-	0,028	0,004
	Level	0,132***		
	Left-	-0,035	0,034	-
	Right	(a)		0,050
	Job loss	0,212	0,246	0,412
		(a)		*
	Age	0,005*	0	0,010
				*
	Male	0,213*	0,017	0,213
		*		
	Educati	0,009	0,019	-
	on		(a)	0,011
	Corrupti	0,108	-	0,055
	on		0,170	
	Perception			

Source: Eurobarometer 76.1, September 2011

Note: (a) – significant at 0.1 level

\* - significant at 0.05 level

\*\* - significant at 0.01 level

\*\*\* - significant at 0.001 level



The aim of comparing the larger groups of countries in addition to just Slovenia and Slovakia is two folded. Firstly, the causal mechanisms and behaviour might not be the same across countries and thus we wanted to inspect whether the causal links connecting different dimensions of corruption and the crisis impact varies in different countries or group of countries. As it is clear, not all the effects are shared across the selected models. Secondly, the sample size of a single country model is relatively small. Comparing the results, particularly the statistical significance of the coefficients might tell us whether the non-significant results might stem from the lack of statistical power (and thus committing the type-II error) or the effect is truly missing. We see that the significance is indeed higher (e.g. effect of informedness on corruption perception, or the effect of anti-corruption trust on corruption perception) with the larger sample size. This indicates that at least some of the statistical insignificance might stem from lack of power.

Regarding the substantial results, firstly we address the difference between the corruption perception and personal experience. The personal experience was measured as being asked or expected to pay a bribe in any of the given sectors of public life. Within the whole Central Eastern Europe the correlation between this measure of experience and corruption perception ranged from 0.045 (Estonia) to 0.180 (Bulgaria). In our final model, we dichotomised the corruption experience variable so that it distinguishes between encountering either none or at least one situation when asked for a bribe. The empirical analysis shows that there

is a direct positive relationship between the two variables in question. In other words, persons who have been asked or expected to pay a bribe tend to perceive higher general corruption, although this varies across countries. In Slovakia the effect is at level of 0.562 (however, significant at 0.1 level). In Slovenia it seems to be larger than 1.3 point, however, not statistically significant.

As for the trust in public institutions' anti-corruption performance, the analysis provides no evidence that the corruption experience would have statistically significant direct effect. As well, the indirect effect leading to the trust through the corruption perception appears to be statistically insignificant.

When modelling the relationship between the anti-corruption trust and the corruption perception our model took into account the issue of possible reverse causality. Using two instrumental variables we estimated the separated influence the two factors have on each other. The results show that, on the one hand, there is no statistically significant influence that the corruption perception would exert on the anti-corruption trust. On the other hand, lower anti-corruption trust appears to be increasing the corruption perception. Simply, people perceive higher general corruption because they don't trust public institutions to be fighting corruption effectively, and not vice versa.

Our research also asked what has been the personal crisis impact on the corruption perception and anti-corruption trust. The crisis impact is measured as a job loss of a respondents or his family member directly

due to the crisis. Firstly, there seems to be no statistically significant influence of the job loss on the corruption perception either in Slovenia or Slovakia. However, the indirect influence of the job loss is exerted via the anti-corruption trust. Person who has lost a job or his family member lost a job due to the crisis, is less trustful in the institutions' anti-corruption fight and consequently perceives higher general corruption. This indirect effect seems, however, statistically insignificant in Slovenia.

## **6. DISCUSSION&CONCLUSIONS**

This paper investigated the relationship among corruption experience, corruption perception, anti-corruption trust and how the effect of the personal impact of crisis conditioned it. The structural equation modelling was used to address the possible reverse causality between the corruptions perception and anti-corruption trust.

Firstly we asked what the relationship is between corruption experience and corruption perception. The analysis provides evidence of only a weak link between the two. In Slovakia, corruption experience has a positive direct effect on the corruption perception, significant at the 0.1 level. In Slovenia, the effect is even larger, however, not statistically significant. Secondly, we addressed the problem of the possible reverse causation between corruption experience and trust. The findings show that there is no evidence for the effect of the corruption perception on the anti-corruption fight trust. Rather the contrary, the analysis indicates that it is the trust that influences person's perception of corruption.

Thirdly, we investigated the effect of the personal crisis impact on the corruption perception and anti-corruption trust. Having lost a job within a family does not seem to influence the corruption perception directly. However, the job loss does have a negative direct effect on the anti-corruption trust (insignificant in Slovenia, significant at the 0.05 level in Slovakia). This in turn means that the job loss influences the corruption perception indirectly, via lower trust.

The results of our findings are in line with some of the recent research. In accordance with Wroe et al. (2013) our analysis shows that the causal path goes from the person's trust to the perception of corruption, not vice versa, as suggested by others (e.g. Seligson, 2002; Hakhverdian & Quinton, 2012). Although it should be reminded that we operationalized trust rather narrowly – as the trust towards state institutions fighting corruption effectively. However, we don't see a reason why the relationship between the corruption perception and general institutional trust on the one hand, and between corruption perceptions and the anti-corruption trust on the other hand, should be diametrically different.

Our findings do not necessarily mean that there is strictly no effect of corruption perception on the institutional trust. What matters is indeed the operationalization. In our case, both of the variables were at individual level. In other words, we investigated the relationship between the trust a person holds towards the state institutions and the corruption perception of the very same person. In our research, we

investigated the abovementioned relationships in separated country models (Slovakia and Slovenia). However, there is still a possibility that the corruption perception does have an effect on the institutional trust, if it is operationalized as a contextual variable in cross-country study design.

The effect of corruption experience on corruption perception in our analysis does not go against the Olkin's conclusions (2009). Although there seems to be positive relationship between the two (statistically significant at 0.1 level) in Slovakia, the maximum effect is 0.562 at the 15-point scale. This leaves considerably large space for many other factors to determine the corruption perception other than the direct experience. So the interpretation could be that people with the direct experience with corruption will only slightly increase the perception thereof, which is still compatible with Olkin's conclusion that people can distinguish the general corruption and the specific one. Assume that people would not be able to distinguish the general corruption from the specific experience they have had. Would we not expect a considerably higher maximum effect, possibly approaching 15 points?

Despite our best efforts to address the reverse causation issue and the relationship between the experience and perception of corruption, many questions remain still unanswered. If the previous research found that the corruption perception influences the institutional trust, while our study shows that it is the anti-corruption trust influencing the corruptions perceptions, the future research should answer to what

extent the two types of trust are different. Although intuitively we would say that the trust as we operationalized it is the subcategory of the more general institutional trust, the intuition is not always right. Another way to go in the future is to study the difference between corruption perception of an individual (with varying values within a single country) and the corruption perception as a contextual variable (that is of the same value for all individuals within a single country). Thirdly, when it comes to the reverse causation between the corruption perception and trust, some interdisciplinary research with psychology could shed more light on the issue. Involving some processes regarding the formation of trust towards an institutions and formation of opinions on corruption might reveal more causal mechanisms in the problem that remains the notorious vicious circle for political scientists and sociologists for now.

## **REFERENCES**

- Anderson, Christopher J., and Andrew J. Lo Tempio. 2002. "Winning, Losing, and Political Trust in America." *British Journal of Political Science* 32(2):335–51
- Anderson, Christopher J., and Yuliya V. Tverdova. 2003.

“Corruption, Political Allegiances, and Attitudes toward Government in Contemporary Democracies.” *American Journal of Political Science* 47 (1): 91–109.

Anderson, Christopher J., Andre´ Blais, Shaun Bowler, Todd Donovan, et al. 2005. *Losers’ Consent: Elections and Democratic Legitimacy*. Oxford and New York: Oxford University Press.

Berggren, N., Jordahl, H., 2006. Free to Trust: Economic Freedom and Social Capital. *Kyklos*, Wiley Blackwell, Vol. 59, No. 2, pages 141-169,

Braithwaite, V., Levi, M. (Eds.).(1998). *Trust and governance*. New York: Russell, Sage.

Clausen, B., Kraay, A., Nyiri, Z., 2011. Corruption and Confidence in Public Institutions: Evidence from a Global Survey. *World Bank Economic Review*, Vol. 25, No. 2, pp. 212 – 249

Dogan, Mattei, and John Highley (eds.): *Elites, Crises, and the Origins of Regimes*. New York: Roman and Littlefield, pp. 3–28

Frey, Bruno S., and BenoTorgler (2007).“Tax Morale and Conditional Cooperation.” *Journal of Comparative Economics* 35 (1): 136–159

Glaeser, E.L., Laibson, D.I., Scheinkman, J.A., Soutter, C.L., 2000. Measuring trust. *The Quarterly Journal of Economics* 115 (3), 811–846.

Guiso, L., Sapienza, P., Zingales, L., 2003. People's opium? Religion and economic attitudes. *Journal of Monetary Economics* 50 (1), 225–282

Hacek, M., Kukovic, S., Brezovsek, M. (2013) Problems of corruption and distrust in political and administrative institutions in Slovenia. *Communist and Post-Communist Studies*, article in press, pp. 1-7

Hakhverdian, A., Quinton, M., 2012. Institutional Trust, Education, and Corruption: A Micro-Macro Interactive Approach. *The Journal of Politics*, Vol. 74, No. 3, pp. 739–750

Hellman, Joel, and Daniel Kaufmann (2004). "The Inequality of Influence". Available on February 16, 2013, at SSRN: <http://ssrn.com/abstract=386901> or doi:10.2139/ssrn.386901

Hoyle, R. H. (1995) *Structural Equation Modeling: Concepts, Issues and Applications*. Sage Publications, London, UK, 289p.

Chang, Eric C.C., and Yun-han Chu 2006. "Corruption and Trust: Exceptionalism in Asian Democracies?." *The Journal of Politics*, 68(2), 259 – 271.

Inglehart, R., 1997. *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*. Princeton: Princeton University Press

Kaufmann, Daniel, and Shang-Jin Wei 2000. "Does "Grease



Money” Speed Up the Wheels of Commerce?” IMF Working Papers, 00/64, Washington DC: International Monetary Fund.

Knack, S., Keefer, P. 1997. “Why Don’t Poor Countries Catch Up? A Cross-National Test for an Institutional Explanation.” *Economic Inquiry*, 35(3), 590 – 602.

Kuokstis, V., 2012. Trust and Taxes: Estonian and Lithuanian Fiscal Performance During the Crisis (2012). APSA 2012 Annual Meeting Paper. Available at SSRN: <http://ssrn.com/abstract=2104562> [Accessed February 2<sup>nd</sup>, 2013]

Mishler, William, and Richard Rose. 2001. “What Are the Origins of Political Trust? Testing Institutional and Cultural Theories in Post-Communist Societies.” *Comparative Political Studies* 34 (1): 30–62.

Mishler, William, and Richard Rose. 2005. “What Are the Political Consequences of Trust?” *Comparative Political Studies* 38 (9): 1050–78.

Putnam, Robert D. (1993). *Making democracy work*. Princeton, NJ: Princeton University Press.

Rohrschneider, Robert, and Rudiger Schmitt-Beck. 2002. “Trust in Democratic Institutions in Germany: Theory and Evidence Ten Years after Unification.” *German Politics* 11 (3): 35–58.

Seligson, Mitchell A. 2002. “The Impact of Corruption on Regime Legitimacy: A Comparative Study of Four Latin American

Countries.” *The Journal of Politics*, 64(2), 408 – 433.

Snijders, T.A.B., and Roel J. Bosker (1999). *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling*. London, New Delhi, and Thousand Oaks, CA: Sage Publications.

Soot & Rootalu (2012) Institutional Trust and Opinions of Corruption. *Public Administration and Development*, Vol. 32, No. 1, pp. 82-95

Steenbergen, Marco R., and Bradford S. Jones. 2002. “Modeling Multilevel Data Structures.” *American Journal of Political Science* 46 (1): 218–37

Uslaner, Eric M., 2007. Tax Evasion, Trust, and the Strong Arm of the Law. In *Trust, Institutions, and State Capacities: A Comparative Study*, edited by Nicolas Hayoz and Simon Hug, 17–50. Bern, Switzerland.

Zak, P. J. and Knack, S. 2001. Trust and growth, *Economic Journal*, vol. 111, pp. 295–321.

## Appendix 1: Descriptive statistics

	Ob s.	Mea n	St.De v.	Mi n	Ma x
SLOVAKIA					
Male (0 female; 1 male)	870	0,50 0	0,500	0	1
Asked for bribe (0 no; 1 yes)	870	0,30 0	0,459	0	1
Feeling informed about corruption (0 no; 1 yes)	864	0,41 4	0,493	0	1
Job loss due to crisis (0 no; 1 yes)	868	0,41 0	0,492	0	1
Pessimism	863	3,11 7	0,926	1	4
Social level self-placement	857	2,46 7	1,419	0	5
Political left-right self-placement	747	5,17 9	2,594	1	10
Age	870	43,8 09	16,59 0	15	90
Education (in years)	860	16,8 69	6,468	0	39
Anti-Corruption Trust	839	9,08 6	2,114	0	12
Corruption perception	870	5,55 6	3,443	0	14
SLOVENIA					
Male (0 female; 1 male)	925	0,50 6	0,500	0	1
Asked for bribe (0 no; 1 yes)	925	0,07 6	0,266	0	1
Feeling informed about corruption (0 no; 1 yes)	918	0,49 7	0,500	0	1

Job loss due to crisis (0 no; 1 yes)	925	0,26 2	0,440	0	1
Pessimism	908	3,42 0	0,732	1	4
Social level self-placement	892	2,37 5	1,447	0	5
Political left-right self-placement	505	5,32 2	2,378	1	10
Age	925	46,7 16	17,83 1	15	90
Education (in years)	918	16,7 85	7,545	0	72
Anti-Corruption Trust	887	10,1 65	1,782	3	12
Corruption perception	925	8,21 8	3,931	0	14

Note: Sampling weight was used

## Appendix 2: Table of Direct, Indirect and Total Effects in Slovenia, Slovakia and the V4 Group of Countries

DEP.	Predictor	SLO			SVK		
		DIRECT EFFECT	INDIRECT EFFECT	TOTAL EFFECT	DIRECT EFFECT	INDIRECT EFFECT	TOTAL EFFECT
Trust	Corruption experience	0,113	-0,184	-0,071	0,327	0,053	0,38
	Corruption perception	-0,17	0,065	-0,105	0,055	0,003	0,059
	Job loss due to crisis	0,246	-0,047	0,199	0,412	0,031	0,443
	Education (in years)	0,019	-0,006	0,012	-	0,001	-0,01
					0,011		
	Male	0,017	-0,107	-0,09	0,213	-0,002	0,211
	Age (in years)	0	0,002	0,002	0,01	0	0,01
	Left-Right self-placement	0,034	0,008	0,041	-0,05	0,001	-0,049
	Social level self-placement	0,028	0,023	0,051	0,004	-0,002	0,002
Feeling informed	0	-0,215	-0,215	0	0,047	0,047	
Pessimism	0,241	-0,092	0,149	0,313	0,019	0,332	
Perception	Corruption experience	1,345	-0,258	1,086	0,562	0,394	0,956
	Trust	3,627	-1,382	2,245	1,036	0,063	1,099
	Job loss due to crisis	-0,446	0,721	0,275	0,1	0,459	0,559

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Education (in years)	-0,007	0,045	0,038	0,022	-0,01	0,012
Male	0,96	-0,328	0,632	-	0,219	-0,029
				0,247		
Age (in years)	-0,016	0,007	-0,009	-	0,01	-0,005
				0,016		
Left-Right self- placement	-0,196	0,15	-0,046	0,073	-0,05	0,022
Social level self- placement	-0,317	0,183	-0,133	-0,04	0,002	-0,038
Feeling informed	2,048	-0,78	1,268	0,804	0,049	0,853
Pessimism	0	0,54	0,54	0	0,344	0,344

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