The Empire Is Dead, Long Live the Empire!

Values and Human Interactions 90 Years after the Fall of the Habsburg Empire*

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Abstract: Formal institutions as well as informal institutions, such as norms and values, influence agents' behavior. We want to identify whether the Habsburg Empire left an institutional legacy that influences current economic outcomes in Central and Eastern Europe. We use individual-level survey data from the Life in Transition Survey and combine them with municipality-level information on affiliation with the Habsburg Empire. Using a regression-discontinuity design, we show that past affiliation with the Habsburg Empire increases trust in state institutions and investment in social capital. It also reduces the probability that bribes are paid for a variety of public services.

Keywords: Institutions; Social Capital; Corruption; Habsburg Empire; Regression-Discontinuity Design

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"No other family has endured so long or left so deep a mark upon Europe: the Habsburgs were the greatest dynasty of modern history, and the history of central Europe revolves around them, not they round it."
AJP Taylor (1948), *The Habsburg Monarchy 1809-1918*

I. Introduction

Nearly twenty years have passed since the fall of the Berlin wall. The question arises how long it will still take until transition is over. Alesina and Fuchs-Schündeln (2007) show that persons born in East Germany have a stronger preference for redistribution. Interestingly, the longer persons lived under the socialist regime (older people), the more pronounced is this preference. This is different from the effect found in West Germany where older people are less favorable of redistribution than younger people. The popular notion is that changes such as the convergence of preferences take at least three generations. Indeed, Tabellini (2008a) provides evidence that the norms and values of third generation immigrants in the US are correlated with those in their ancestors' home country.

We analyze whether affiliation with a particular "system" that ended about three generations ago shapes current behavior and economic outcomes. For our analysis, we use affiliation of parts of Eastern Europe with the Habsburg Empire which collapsed in 1918, after World War I. Some areas had been under Habsburg rule for many centuries. The underlying idea is that the population that lived in the Habsburg Empire faced the same formal institutions, such as the political system and the judiciary. Those formal institutions, in turn, shape informal institutions, such as norms and values, which change only very slowly over time. Thus, we investigate the following questions: Did the Habsburg Empire leave an institutional legacy? Do norms and values of people living in municipalities that were part of the Habsburg Empire differ from those in municipalities outside the former Habsburg Empire? What is the effect on economic outcomes?

To answer these questions, we empirically analyze how the affiliation with the Habsburg Empire influences trust (in general and in different state institutions), investment in social capital and, as an economic outcome, corruption. We use survey data from the 2006 Life in Transition Survey that was carried out in Central and Eastern Europe and focus on those 17 countries that are either successor states of the Habsburg Empire or neighboring countries thereof. The survey covers a broad range of topics, including questions on membership in political parties and civic organizations, trust in institutions, and corruption. Historians characterize the Habsburg bureaucracy as "fairly honest, quite hard-working, and generally high-minded" (see Taylor 1948) – different from other Empires in Central and Eastern Europe, like the Russian and Ottoman Empire. We therefore expect respondents living in the municipalities that were part of the Habsburg Empire to be more likely a member of a political party or a civic organization, to have more trust in institutions and to bribe less frequently.

A particular feature we exploit in part of our analysis is the fact that the Habsburg border does not always coincide with current national borders. Whereas many current states in Central and Eastern Europe were historically inside or outside the Habsburg Empire in their entirety, five countries in Eastern Europe comprise both Habsburg and non-Habsburg areas. Using a regression-discontinuity design, we compare municipalities within a range of 200 km on both sides of the border of the Habsburg Empire. This approach has the advantage that respondents face the same institutions today because they live *within* current national borders but differ in their exposure to the formal institutions of the Habsburg Empire. Our results show that, controlling for a host of individual-level variables, including education, income, religion, and ethnicity, respondents living in former Habsburg areas invest more in social capital because they more often are a member of a political party or civic organization and have more trust in state institutions. Moreover, they are less likely to pay bribes for a variety of public services. This last result is particularly interesting because it demonstrates that the institutional heritage not only influences preferences and unilateral decisions but also affects bilateral bargaining situations.

Our paper contributes to the emerging literature on the very long-run effects of institutions on economic outcomes. Acemoglu, Johnson and Robinson (2001) argue that the type of institutions that colonizers set up persist. They use differences in settler mortality rates as instruments for current institutions and show that institutions have a large effect on current income per capita. Acemoglu, Cantoni, Johnson and Robinson (2009) study the long-run economic effects of Napoleonic invasions in Central Europe. In the places invaded by the French, they implemented ambitious programs of institutional reforms abolishing many of the pillars of the ancien régime and the legacy of feudal economic institutions. They show that the places where these reforms were implemented seem to have had better economic performance subsequently, in terms of urbanization, than places which the French did not reform. Becker and Woessmann (2009) study the long-run effects of the Reformation in Germany. Using distance to Luther's town of Wittenberg as an instrument for the spread of the Reformation, they show that Protestant areas had higher literacy rates in late 19th century Prussia, which translated in better economic performance. Guiso, Sapienza and Zingales (2008a) test Putnam's (1993) conjecture that today marked differences in social capital between the North and South of Italy were due to the culture of independence fostered by the free city-states experience in the North of Italy at the turn of the first millennium. Their difference in difference estimates suggest that at least 50% of the North-South gap in social capital is due to the lack of a free city-state experience in the South. Tabellini (2009) shows that in European regions where decision-making was more centralized in the 17th and 18th centuries people have less trust in others, less respect for others and less confidence in the individual. Moreover, these regions have lower output per capita.

However, these studies capture very different institutions, for instance, Acemoglu, Johnson and Robinson (2001) have the legal system in mind whereas Tabellini (2009) and Guiso, Sapienza and Zingales (2008a) capture specific differences in the political system. Both institutions can be classified as "fast-moving" (Roland, 2004). For instance, political institutions do not necessarily change often but can change very quickly -

sometimes nearly overnight. The other class of institutions are "slow-moving" institutions, of which culture is a prime example. Culture includes values, beliefs, and social norms, which tend to change gradually because they are transmitted fairly unchanged from generation to generation (Guiso, Sapienza and Zingales., 2006, p. 23). Of course, slow- and fast-moving institutions influence each other (Aghion, Algan, Cahuc and Shleifer (2009) argue that they co-evolve). This implies that political institutions that were effective a long time ago formed culture which prevails until today. Thus, slow-moving institutions are the link through which distant political and economic history influences current outcomes (Tabellini, 2008a).

There are different channels through which culture might affect economic outcomes. First, culture influences individual beliefs and social norms. In a game-theoretic model, culture could act as a focal point when multiple equilibria exist. This reasoning has been applied by Greif (1994) who argues that in the 11th century the Maghrebi traders (coming from the Muslim world) and the Genovese traders (coming from the Latin world) chose different organizational structures due to their different cultures. In empirical studies, beliefs are measured by the level of trust survey respondents have. Second, culture may determine values and preferences. There is evidence that culture influences economic preferences, for instance, children of Italian migrants in the US exhibit the same attitude to leave home as their fellows in Italy (Giuliano, 2007). It also influences political preferences, for instance, for redistribution (Alesina and Fuchs-Schündeln, 2007; Guiso, Sapienza and Zingales, 2006).

Some papers provide theoretical explanations for the transmission of values within the family. In Bisin and Verdier (2000) parents, due to "paternalistic altruism", evaluate the values to transmit by assessing their children's welfare in terms of their own value. Tabellini (2008b) adds social norms to their model and shows that there is a strategic complementarity between individual behavior and social norms. In Guiso, Sapienza and Zingales (2008b) children take over the values of their parents but update them in market-

based interactions. Since parents want to protect their children from costly mistakes they transmit overly conservative values.

There is convincing evidence that values are transmitted within the family. The most direct evidence is from the German Socio Economic Panel which shows that the trust level of a child is positively correlated with those of its parents (Dohmen, Falk, Hufman and Sunde, 2007; Guiso, Sapienza and Zingales, 2008b). But values transmitted persist across distance and over time. The probability that a diplomat in NYC who is protected by immunity pays his parking ticket decreases with the corruption level of his home country (Fisman and Miguel, 2007). Even among third-generation immigrants in the US there is a positive correlation between their trust levels and the trust levels in the home country of their ancestors (Tabellini, 2008a). Like for third generation immigrants we argue that values transmitted – be it within a family or through other social groups – persist over time even if the formal and informal institutions in which a person lives change fundamentally. The region we investigate, Eastern Europe, faced such fundamental change because after the collapse of the Habsburg Empire new states emerged. The whole region adopted the socialist system which again ended in 1989/90 and was followed by an ongoing transition process.

We add to this literature on the effects of distant political history on current outcomes by studying the impact that past affiliation with the Habsburg Empire[1] has on different features of culture today and on current economic outcomes. We do not attempt to single out a particular feature of past experience but take the Habsburg effect as one influencing many different institutions. In contrast to the previous papers, we use micro data from a household survey. The use of micro data allows us to control for individual-level heterogeneity, avoiding aggregation bias that may hamper more aggregate studies.

[1] Research in economic history investigates different aspects of the Habsburg Empire, for instance, that the trade flows before the collapse of the Habsburg Empire are a good predictor for the borders of its successor states (Schulze and Wolf, 2009; Heinemeyer, Schulze and Wolf, 2008).

Our results show that past experience influences different features of culture, namely trust in general and trust in state institutions. It also affects social capital by shaping an individual's decision to become a member of a political party and a civic organization. Most importantly, it influences whether bribes are commonly paid in interactions with civil servants, which is the result of a bilateral bargaining. As such, culture can be a selection device in a game with multiple equilibria.

The paper is organized as follows. In section II, we provide a brief overview over the history of the Habsburg Empire. In section III, we describe our empirical strategy. In section IV, we present results and in section IV conclusions.

II. A Short History of the Habsburg Empire

Beginning in the 11th century, Habsburg[2] collected a multitude of different territories and peoples from Spain in the West, to the Netherlands, to Austria, to the Dalmatian coast, to Bohemia, Moravia, Hungary, Bosnia, and Galicia in the East. In ruling these extensive areas, the Habsburg family and dynasty were a decisive factor and an – or even the – most important momentum in keeping the vast country together. The Habsburg project was quite successful: Charles V (1500-1558) ruled the Holy Roman Empire, a realm with almost four million square kilometres, where "the sun never sets." For five centuries, Austria was the great central European superpower, until its dismemberment in World War I (Zöllner, 1990). Since the focus of our empirical analysis is Central and Eastern Europe, the following overview will mainly look at those parts of the history of the Habsburg Empire pertaining to that area.

The Habsburg identification with Austria began, when Rudolf IV of Habsburg was elected German king in 1273. Since then, the Habsburgs continuously expanded their

[2] The name Habsburg derives from the municipality and castle of Habsburg, in what is now Switzerland, where the Habsburg family originates. For simplification, we use generally the term *Habsburg monarchy*, although it is frequently used for the years between 1526 and 1867. The name *Austrian Empire* is officially applied during the years 1804–1867. *Austria-Hungary* or *Austro-Hungarian Empire* describes officially the two states Austria and Hungary within one common reign 1867–1918.

territories, by marriage[3], by succession to the throne, but also by wars – and even by wars, that were waged without Austria. In the 16th century, more than half of Europe was ruled by the House of Habsburg. In 1526 it broadened its territory in central Europe: After the young Hungarian King Louis II had died in the Battle of Mohács against the Ottomans, Ferdinand of Austria, the brother of the Holy Roman Emperor Charles V., was elected King of Hungary and Croatia, as well as of Bohemia. External events caused Habsburg's north-eastward expansion: the First Partition of Poland in 1772 brought Galicia and Lodomeria to Vienna, arranged by Russia and Prussia. The acquisition of Bukovina in 1775 was a side effect of the Treaty of Küçük Kainardca (1774) after the Russo-Ottoman War.

With Ferdinand I's succession to Hungary in 1526, Habsburg had to bear the brunt of the Ottoman drive from the Balkans into central Europe. Twice, the expanding Ottoman Empire even tried to capture Vienna, in 1529 and in 1684. The latter battle marked the beginning of the political hegemony of the Habsburg dynasty in Central Europe, as it conquered step by step vast territories along the Danube – in Hungary, nowadays Croatia, Serbia, and Romania constantly driving back the Ottomans, attempting to prevent Russia and its ally Serbia from gaining further territories here, until the conflict with Russia became notorious in the 19th century. To maintain a balance of power between the leading European powers, the Treaty of Berlin in 1878 permitted Austria-Hungary to occupy Bosnia, Herzegovina as well as the Sanjak of Novi Pazar in Serbia/Montenegro (Glenny, 2000, p. 147).

Until the 18th century, the different parts of the Habsburg Empire were only loosely tied together. This changed throughout the 18th century when the administration was increasingly centralized. The Habsburgs tried to modernize their realms from within. In contrast, the Ottoman Empire made no successful efforts to overcome its inner contradictions; its subjects ("raya", "protected flock") were deprived of political rights, reforms in the late 19th century were too weak. Nearly no secular education existed, bribery was a normal phenomenon, institutionalized and even expected by officials.

[3] This was only the case for westwards expansion. *Bella gerant allii, tu felix Austria nube* (Let the others wage wars, you, fortunate Austria, marry), as a famous hexameter put it.

(İnalcık, 1996). On the other side, Russia conceded some economic and social modifications – serfdom was abolished in 1861, in Habsburg lands in 1781. But the autocratic monarchy gave no leeway to parliamentary influence until the revolutions of 1917 (Bartlett, 2005; Imber, 1990). In contrast to these powers, the Habsburg state ruled in a smoother manner, so that for the inhabitants everyday life was more predictable than in the adjacent Ottoman Empire:[4] Habsburg administration was based on a civil law book. Already Maria Theresa (1741-1765) began to establish an administration of civil servants (*Beamtenstaat*), and instituted *Kreishauptmänner*, captains of the county to supervise the local administration in the different entities of the Habsburg Empire. Her son, Josef II (1765-1790), an enlightened, rational and secularized monarch, (too) radically continued that way. He founded institutions of social and medical care, ended censorship in theatres and the press, induced complex legal reforms, and established German as the official language in all parts of his empire.

Despite the national aspirations of the peoples within the empire, some aspects of Habsburg policy were widely accepted. Transfers in the form of subsidies and infrastructure projects such as railroads to less developed regions fostered their integration. In the Habsburg lands, education was more important than in Russia and the Ottoman Empire. Bureaucracy throughout the empire was well respected by the population because of its reliability. AJP Taylor (1948) paraphrases this as follows: "The Austrian bureaucracy was fairly honest, quite hard-working, and generally high-minded, it probably did more good than harm." Until the end of Word War I, the Austro-Hungarian army was a functioning multicultural microcosm and an important instrument for integrating people from all over the Habsburg territories.

The Habsburg Empire fell due to the national intention of the Habsburg peoples, and also due to the political will of the winning powers of World War I. Together with Austria, the other European multiethnic empires collapsed: the Russian and the Ottoman Empire.

[4] In his novel "The bridge over the Drina", literature Nobel prize laureate Ivo Andrić wrote that the Habsburgers built water pipes, introduced street numbers, road lightning and passes for livestock, see also Imamović (2007) and Bencze (2006).

Although the Habsburg Empire was no modern-day democracy, it was well run compared to the Russian and Ottoman Empires and it might well have left an institutional legacy.[5] Since some of the Habsburg institutions (e.g. the *Kreishauptmänner*, captains of the county) have endured for very long, they are likely to have impacted everyday life and interactions. Even when, with the fall of the Habsburg Empire, the formal, fast-moving institutions ceased to exist, the slow-moving institutions that came with them may have persisted.

III. Empirical Analysis

We now describe our empirical setup where we try to assess whether survey respondents in Habsburg municipalities differ from respondents outside the Habsburg Empire in their social capital and trust and whether this has an impact on economic outcomes.

III. 1. Data

We use the Life in Transition Survey (LiTS) collected by the European Bank for Reconstruction and Development (EBRD). The LiTS aimed at surveying how the transition process after the fall of Communism affected people's lives. Besides socio-demographic information like age, gender, education, the survey collected information about satisfaction with public services and whether respondents usually paid bribes in connection with these services. Conducted by EBRD between August and October 2006, the survey covers 29 countries in Central and Eastern Europe, the Community of Independent States and Mongolia and Turkey. In each country 1,000 households (HHs) (20 HH in 50 locations) were interviewed.

We restrict our analysis to countries that are either successor states of the Habsburg Empire or neighboring countries thereof. Austria, not being a transition country, is not

[5] Several elements of the Habsburg bureaucracy survive to this day. Emperor Franz Joseph was known to get up early and expected to be able to reach his civil servants in office as well. In the Czech Republic, offices generally open at 7 a.m. to this day.

part of the survey. Thus our data set covers the following 17 countries in Central and Eastern Europe: Albania, Belarus, Bosnia, Bulgaria, Croatia, Czech Republic, Former Yugoslav Republic of Macedonia, Hungary, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Ukraine.

For every municipality in our data, we collected information on affiliation with the Habsburg Empire, including the duration of membership (see Appendix for details). Furthermore, we geo-coded municipality data to compute distance from the old Habsburg border. We use this information in those specifications where we apply the regression-discontinuity design (RDD), restricting attention to respondents in municipalities within a certain distance of the Habsburg border, but within the same current state.

III. 2. Empirical Method

Social capital

Social capital is often measured by membership in organizations (Glaeser, Laibson, Sacerdote, 2002). The LiTS questionnaire contains one question about membership in organizations. It is formulated as "Are you a member of? (a) a political party, (b) other civic/voluntary organizations (club, association)." The respondent can answer with yes or no. We investigate how organization membership depends on former affiliation with the Habsburg Empire and other covariates in a probit model.

Trust

In the LiTS questionnaire there are two sets of questions about trust. The first is about general trust and is formulated as

"Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? What would it be today? And before 1989?"

The second is about trust in institutions and is phrased as

"To what extent do you trust the following institutions?" with a list of twelve institutions (The presidency, the government/ cabinet of ministers, the parliament, courts,

political parties, armed forces, the police, banks and the financial system, foreign investors, NGOs, trade unions and religious institutions).”

Different from other comparable surveys where the trust question is asked (e.g., the World Values Survey or the US General Social Survey), in the LiTS respondents are asked to express the *intensity* of their trust beliefs.[6] The answer can be chosen from the following scale: 1=Complete distrust, 2=Some distrust, 3=Neither trust nor distrust, 4=Some trust, 5=Complete trust, 6=Difficult to say. We set the last category (6=difficult to say) to missing in the regressions.

Due to the ordered nature of this variable we use an ordered logit model. An ordered logit model has the form

$$\log it(p_1) = \log \frac{p_1}{1-p_1} = \alpha_1 + \beta' X$$

$$\log it(p_1 + p_2) = \log \frac{p_1 + p_2}{1-p_1-p_2} = \alpha_2 + \beta' X$$

..

$$\log it(p_1 + p_2 + ... + p_k) = \log \frac{p_1 + p_2 + ... + p_k}{1-p_1-p_2-...-p_k} = \alpha_k + \beta' X$$

and $p_1 + p_2 + ... + p_k + p_{k+1} = 1$

where X contains an indicator for affiliation with the Habsburg Empire as well as individual-level and household-level controls to control for confounding factors.

This model is known as the proportional-odds model because the odds ratio of the event is independent of the category j. The odds ratio is assumed to be constant for all categories.[7]

[6] The permissible answers differ from those in the World Value Survey, where the answers are either “*Most people can be trusted*” or “*Can’t be too careful*”. Given this formulation, the response may be “not only shaped by people’s beliefs about others’ trustworthiness, but also by their own preferences towards taking social risks.” (Fehr, 2009, p.239). The formulation in the LiTS with a scale from complete distrust to complete trust is likely to be better (Fehr, 2009)

[7] Alternatively, we have estimated a generalized order logit model (see Williams (2006)) which allows for non-proportional odds. Results are very similar. Another alternative is to ignore the categorical nature of the outcome variable and run an ordinary least squares (OLS) regression (see Blanchflower and Oswald (2004) for a similar comparison between ordered logit and OLS). Results are qualitatively similar.

Corruption

Our outcome variable is inferred from the following LiTS question: "In your opinion, how often is it necessary for people like you to have to make unofficial payments/gifts in these situations?" with permissible answers: 1=Never; 2=Seldom; 3=Sometimes; 4=Usually; 5=Always.

Table 1 shows the answers to this question for the following eight situations presented to survey respondents: (1) Road police; (2) Request official document; (3) Other police; (4) Courts; (5) Medical treatment; (6) Public education; (7) Unemployment benefits; (8) Other social security benefits. At the descriptive level, it is evident that bribing is less likely in formerly Habsburg areas.

However, we want to analyze the effect in a multivariate regression framework to be able to control for factors that vary systematically across individuals in our sample. The ordered nature of this variable calls for the use of an ordered probit or logit model.

Estimation samples

We estimate the probit and ordered logit model both on the sample of survey respondents living in any of the 17 countries that are Habsburg successor states or neighbors thereof ("full sample") as well as on the sample of respondents that live within a certain distance of the historic Habsburg border ("RDD sample").

Table 2 shows descriptive statistics for the full sample. About half of our sample comes from respondents in Habsburg areas. The distribution of municipalities in our sample is shown in Figure 1. (See Figure 2 displaying an historic maps of the Habsburg Empire.)

IV. Results

Social capital

The results of the probit regressions of social capital are shown in Table 3 for membership in a civic organization and in Table 4 for membership in a political party. We start with Table 3, Column 1 which shows that respondents in Habsburg areas are more likely to be members in a civic organization. In Column 2 and 3 we add socio-demographic variables (age, sex, work status, education, religion, ethnic background) and control for HH characteristics. Adding individual-level controls does not change the Habsburg effect. Once we add household-level controls that partly control for income, the size of the coefficient decreases. In Column 4 we control for the area of residence (whether it is urban or metropolitan, where rural is the base category) and see that the coefficient of the Habsburg dummy remains positive and similar in size.

Since respondents living in the same state as of 2006 might have been exposed to a different set of (common) institutions (national independence, communism, transition) since the fall of the Habsburg Empire in 1918, it is important to control for this by including a full set of country dummies in our regressions. This is what we do in column 5, where identification now comes from differences between respondents in Habsburg- and non-Habsburg areas *within* the same current state. The estimated Habsburg coefficient drops indeed drops, as expected, but it stays statistically significant.

Next we restrict the sample in two steps to implement the RDD design. In a first step, we use a sample that contains only the five countries that encompass both areas that were Habsburg and areas that were not Habsburg (Montenegro, Poland, Romania, Serbia, Ukraine). In a second step, we further restrict this sample to those HHs living in municipalities that are within 200 kilometers of the Habsburg border.[8] This serves to control for unobserved heterogeneity between survey respondents that live several

[8] We can look at an even narrower band around the Habsburg border. Results are very similar when using a sample that is restricted to LiTS respondents within 150 kilometers from the Habsburg border. When drawing the band even more narrowly, effects become statistically insignificant, likely because short-distance mobility between towns has to some extent mixed up populations.

hundred or thousand kilometers apart. Arguably, closer to the Habsburg border, respondents are more likely to have the same unobserved characteristics.

In these restricted samples the size of the Habsburg coefficient further drops but remains significant on the 10 percent level. The coefficient in Column 7 implies that a respondent living in the former Habsburg area is 1.2 percentage points more likely to be a member of a civic organization. Given that on average only 4 percent of the HHs in our sample are members of a civic organization this is an economically significant effect.

We run the same regressions for membership in a political party as a dependent variable. The results are provided in Table 4. The coefficient of the Habsburg dummy remains positive and significant throughout. Its significance and magnitude increases to the one percent level from the ten percent level in column 1 once we add additional covariates (Column 2). The increase in magnitude is highest when we include country dummies (Column 5). Even in the restricted samples (Column 6 and 7) the size of the coefficient does not change much. The coefficient implies that the probability of being a member of a political party is 2 percentage points higher if the respondent lives in a former Habsburg municipality. Given that in our sample 9 percent of the respondents are members of a political party, this a sizable effect.

Trust

When analyzing trust, we use the same estimation sample as in the final two columns of Tables 3 and 4. The restricted sample with respondents in the five countries that were partly Habsburg and partly non-Habsburg and within 200 km from the Habsburg border is our preferred estimation sample because it allows us to control for current-country fixed effects and to control for heterogeneity across larger geographic areas by restricting attention to respondents close to the old Habsburg border.

The results of the ordered logit regressions of trust in general and trust in state institutions are shown in Table 5. To save on space, we only display the coefficient on the Habsburg dummy. The specification used is the same as in Table 3, Column 7. The number of observations varies between regressions. The reason is that answers were

missing and that we set the response "difficult to say" as missing. Here we concentrate on coefficient estimates and the implied direction of the effects.

We run 14 separate regressions. The first two regressions have trust in other people as a dependent variable; the other twelve regressions analyze trust in all kinds of state institutions (legislature, executive, judiciary) as well as banks and the financial system, foreign investors, NGOs, trade unions and religious institutions. For state institutions the results are very clear. The Habsburg effect is always positive and significant at the one percent level (expect for the armed forces which is significant at the ten percent level). This implies that respondents living in former Habsburg municipalities have more trust in all state institutions included in the questionnaire. Given that we have already shown that respondents in the former Habsburg area are more likely a member of a political party it is not too surprising that they have more trust in political parties. As we will investigate corruption in the next subsection it is worth noting that the Habsburg effect is positive for the police and courts.

This higher level of trust is also found for other institutions, such as banks and financial system, foreign investors, NGOs and religious institutions. For trade unions the coefficient is positive but significant only at the ten percent level.

Interestingly, the effect of Habsburg on the current general trust level is insignificant. However, it is highly significant for the period before 1989. Here the transition of the economic and political system may have brought about important changes. Before the socialist system broke down, people on Habsburg soil may have cooperated relatively more. This could have changed after the economic transition started to affect the optimization of individual behavior also in terms of "networking". Before 1989, the remembered political experience of the Habsburg time past might have acted like a brace fostering trust.[9]

[9] A note of caution is related to the fact that the two questions about trust towards other individuals before 1989 and after 1989 may lead older respondents to glorify old times whereas younger respondents may not be able to make a meaningful comparison at all. These effects could potentially vary by affiliation with Habsburg Empire. The direction of the effect is, however, a priori unclear.

Corruption

Table 6 shows coefficients from ordered logit regressions of corruption in contacts with the road police. While we discuss marginal effects further below, here we concentrate on coefficient estimates and the implied direction of the effects. Again, we restrict attention to the sample of five countries that were partly Habsburg and partly non-Habsburg. Column 1 shows that respondents in Habsburg areas are less likely to give high scores on the corruption variable.[10] Obviously, the effect may depend on whether a respondent did have contact with the road police at all. We control for this variable in column 2. While respondents that had contacts with the road police in the previous 12 months are more inclined to report bribes, the Habsburg coefficient does not change much and, if anything, becomes larger, possibly reflecting lower incidence of interaction with the police in Habsburg areas. Columns 3 through 7 follow the same logic as in Tables 3 and 4. Column 3 adds basic socio-demographic variables (age, gender, education, work status, religion and ethnic background) that leave the Habsburg coefficient largely unchanged. The same is true when household characteristics (column 4) are added. Column 5 controls for urban and metropolitan area, column 6 adds a full set of country dummies and column 7 restricts to border areas. Overall there is clear evidence that bribes to the road police are significantly less likely to occur on Habsburg side.

In table 7, we look at bribes in contacts with other public institutions. For 7 out of 8 outcomes, we find a negative Habsburg effect, i.e. bribes are less likely. The effect is statistically significant in 5 out of 8 cases.

We now turn to an assessment of the magnitude of the Habsburg effect. Coefficient estimates only indicate the overall direction of effects. By design of an ordered logit, a negative coefficient estimate for a variable implies a lower probability for the highest category and a higher probability for the lowest category. As is typical of non-linear

[10] Results from ordinary least squares (OLS) regressions which treat the categorical outcome as a continuous variable show qualitatively similar results.

models, the effect on intermediate categories is a priori ambiguous and depends on the distribution of the variables entering the regression. To assess the size of the Habsburg effect, we compute the change in the predicted probability of each category as one independent variable changes values while all others are held constant at their mean. Table A.1 shows the results of this exercise for bribes to the road police.

Robustness checks

We assess the robustness of our results by employing various specification tests (see Imbens and Lemieux 2008).

First, we look at possible jumps in the value of other covariates at the Habsburg border. We do so by checking whether municipalities on both sides of the Habsburg border have similar geographic characteristics (altitude, climate). We restrict this robustness check to geographic characteristics because individual and household characteristics might potentially vary as a *result* of the Habsburg Empire whereas geographic characteristics are arguably exogenous.

Second, we look at indicators pre-dating the (expansion of the) Habsburg Empire to see whether the effects we are measuring after the fall of the Habsburg Empire only perpetuate pre-existing differences before the Habsburg Empire came into being. Different from the first robustness check which uses largely time-constant geographic characteristics, this second check uses indicators that might vary over time.

Third, we check whether we find a treatment effect when spuriously moving the Habsburg border. We should not find any effect when comparing municipalities on both sides of a meaningless border.

Robustness check 1: Does the Habsburg Empire differ in its geographic characteristics?

In the first robustness check, we use the sample of municipalities in our five-country sample (Montenegro, Poland, Romania, Serbia, Ukraine) within 200 km of the Habsburg border. This is our main estimation sample where the regression-discontinuity design is

most credible. We regress the altitude of the sample municipalities on a Habsburg dummy. The coefficient on the Habsburg dummy is 40 (meters) with a t-value of 1.01. In an alternative specification, we use robust regression analysis, where outliers (in terms of altitude) are given less weight. This exercise leads to a point estimate on the Habsburg coefficient of 19 (meters) with a t-value of 0.82. We conclude from this robustness check that Habsburg municipalities do not systematically differ in altitude compared to non-Habsburg municipalities. This addresses potential concerns that the Habsburgs might have fought their way through some valley and were stopped at a mountain, or, conversely, that they systematically chose mountainous locations in proximity to their neighbours.

Robustness check 2: Do the estimated Habsburg effects pick up pre-Habsburg differences?

A potential worry is that the Habsburg Empire might have expanded into geographic areas that were distinct from areas outside the (new) Habsburg border in important dimensions affecting our outcomes. For instance, the expansion of the Habsburg Empire might have stopped short of areas that were less economically developed and might have been harder to develop. Similarly, areas outside the Habsburg Empire might have differed in their values and beliefs as well as in their levels of trust already before the Habsburg Empire came into being.

To address these issues, we collect a series of variables capturing economic development pre-Habsburg. We then compare municipalities on both sides of the Habsburg border to see whether there are significant differences in these variables.

Economic historians often use urban population as a proxy for pre-industrial economic prosperity because cities could only be supported in areas with high agricultural productivity, advanced economic specialization, and developed transport systems (cf. Bairoch 1988; Acemoglu, Johnson, and Robinson 2002). We use the data on urban population by Bairoch, Batou, and Chèvre (1988) to construct a measure of urban population in cities in our sample of Eastern European countries. To be precise, we use city size in the years 1000, 1200, 1300, 1400 and 1500, i.e. well before the maximal

expansion of the Habsburg Empire, as indicators of economic development. We regress city sizes on indicators of (i) whether these cities were ever part of the Habsburg Empire, or, in separate regressions, on (ii) whether they were part of the Habsburg Empire in 1500, or (iii) whether they were part of the Habsburg Empire in 1600. In all three cases, we use an RDD sample of municipalities within 200 kilometers of the respective borders (i.e. of the border in its maximum extension in case (i); of the year 1500 Habsburg border in case (ii) and of the year 1600 border in case (iii)). In all cases, we find cities inside and outside the Habsburg borders not to systematically differ in population size. If anything, the sign suggests that cities on Habsburg side were somewhat smaller.

Our second measure uses major trade routes in 1450 as indicators of interaction with foreign traders. Exchange with foreign parties is likely to affect the trust levels of people. When we regress a dummy variable equal to one for cities that were major trading cities (see Magocsi, 2002, p.11) on our Habsburg indicators, we do not find a statistically significant effect.

Finally, values in different parts of Eastern Europe might have been influenced by a strong presence of the Church. We use indicator variables for whether a city was a diocesan town in 1450 (see Magocsi, 2002, p.13). Again, the location of diocesan towns does not vary by later affiliation with the Habsburg Empire.

We take these robustness checks as evidence that the Habsburg Empire did not systematically expand into certain to exploit pre-existing advantages in terms of economics, trust and values.

Robustness check 3: Is the Habsburg border spurious?

In the third robustness check, we proceed as follows: we keep *all Habsburg municipalities* in our five-country sample and define as the new treatment indicator all municipalities in the 200 km border strip. This experiment amounts to moving the Habsburg border 200 km to the West and comparing Habsburg municipalities within 200 km of the actual Habsburg border to Habsburg municipalities outside the 200 km border area. As expected, we find the new (wrong) Habsburg dummy to be generally

insignificant in regressions of social capital and corruption measures where we control for the same set of variables as in column (5) of Table 3.

In a similar vein, we can move the actual Habsburg border by 200 km to the East. We implement this by restricting our estimation sample to *all non-Habsburg municipalities* and (wrongly) re-define all (non-Habsburg) municipalities within 200 km of the actual Habsburg border as Habsburg. Again, we find the new (wrong) Habsburg dummy to be generally insignificant in regressions of social capital and corruption measures.

The conclusion from the robustness checks is that we identify a genuine effect of the former Habsburg border and do not pick up confounding effects.

V. Conclusions

This year, we will celebrate the 20th anniversary of the fall of the iron curtain. There are still lots of differences, for instance, between people from East and West Germany. Our study shows that even 90 years after the demise of the Habsburg Empire there are significant differences between the people's norms and values but also their economic behavior, depending on whether they live in municipalities that formerly were part of the Habsburg Empire or not. Using data from a household survey we show that respondents living in the former Habsburg area are more to be a member of a political party or civic organization, are more likely to trust state institutions and that they are less likely to bribe.

We establish this result by using a regression-discontinuity design. We exploit the fact that the Habsburg border does not always coincide with current national borders. Whereas many current states in Central and Eastern Europe were historically inside or outside the Habsburg Empire in their entirety, five countries in Eastern Europe comprise both Habsburg and non-Habsburg areas. Using this five-country sample as our main estimation sample, we can identify the effect of the Habsburg border when comparing municipalities within a range of 200 km on both sides of the border of the Habsburg Empire. This approach has the advantage that respondents face the same institutions

today because they live *within* current national borders but differ in their exposure to the formal institutions of the Habsburg Empire. Our results show that, controlling for a host of individual-level variables, including education, income, religion, and ethnicity, respondents living in former Habsburg areas have more trust in state institutions and invest more in social capital because they more often are a member of a political party or civic organization. Moreover, they are less likely to pay bribes for a variety of public services. This last result is particularly interesting because it demonstrates that the institutional heritage not only influences preferences and unilateral decisions but also affects bilateral bargaining situations.

What are the channels through which distant political and economic history influences current attitudes and behavior? The idea is that fast-moving institutions such as the political and the judicial system (which in the case of the Habsburg Empire existed for a very long time) influence slow-moving institutions, in particular culture and norms that change only gradually from generation to generation. Our findings are consistent with recent findings of high correlations between risk attitudes and trust levels between a child and its parents (Dohmen, Falk, Huffman and Sunde, 2007) as well as a strong effect of the local environment (Dohmen, Falk, Huffman, Sunde, 2009).

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Appendix

Geocoding of LiTS municipalities

The data from the Life in Transition Survey (LiTS) contains the municipality of residence of survey respondents. We used the following sources to assign (duration of) affiliation with the Habsburg Empire:

Hrvatski povijesni atlas. Zagreb 2003

Kinder, Hermann, Werner Hilgemann (2004). *dtv-Atlas Weltgeschichte. Von den Anfängen bis zur Gegenwart*. Deutscher Taschenbuch-Verlag: München

Leisering, Walter (2004) *Historischer Weltatlas*. Marixverlag: Wiesbaden.

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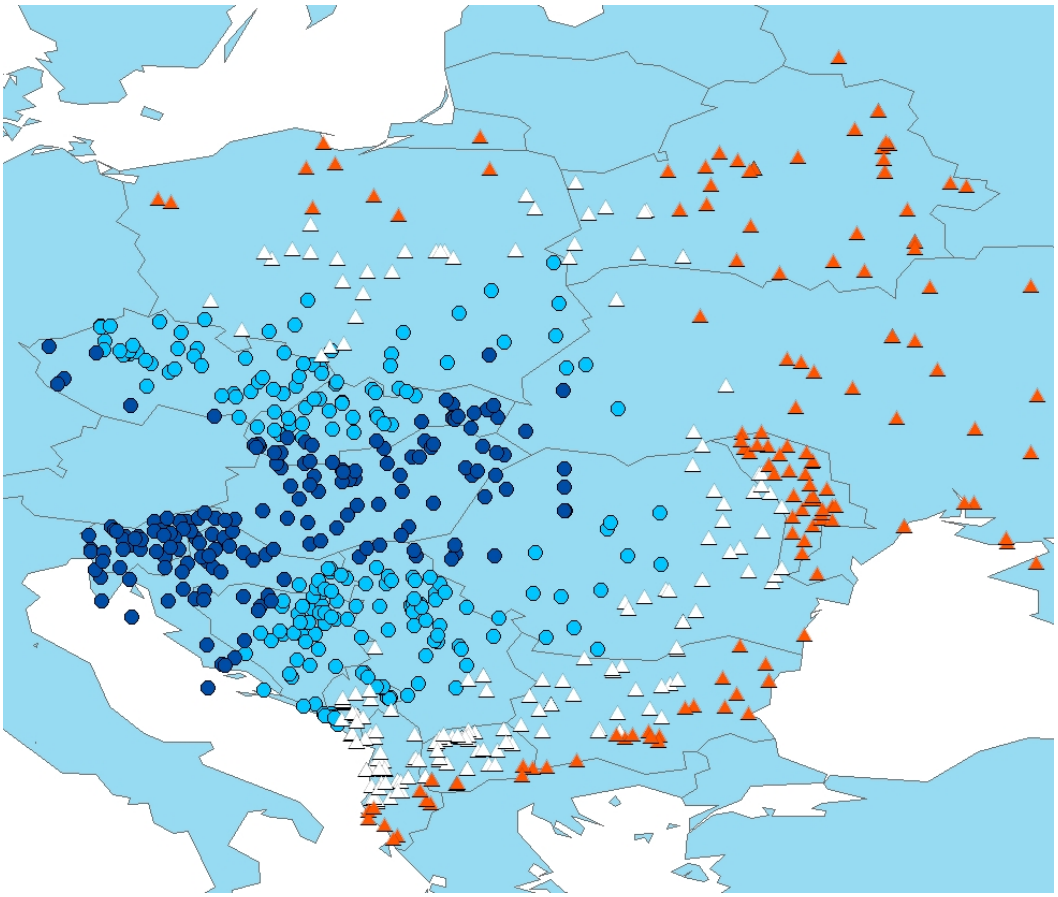
Figure 1 shows the location of municipalities in the LiTS dataset

Figure 1: Location of municipalities in the LiTS 2006 data



Notes: Light blue and dark blue circles show LiTS municipalities that belonged to Habsburg. White and orange triangles show LiTS municipalities outside Habsburg areas. The light blue circles and white triangles lie within 200km of the former Habsburg border.

Figure 2: Historic map of the Habsburg Empire

Source: Dr. H. Lange *Volksschul-Atlas* arranged and edited by C. Dierke. Georg Westermann: Braunschweig 1899.

Table 1: Corruption in public services: Habsburg vs non-Habsburg

	(1) Road police			(2) Request official document			(3) Other police			(4) Courts		
	not Habsburg	Habsburg	Total	not Habsburg	Habsburg	Total	not Habsburg	Habsburg	Total	not Habsburg	Habsburg	Total
never	4,983	5,561	10,544	5,148	6,208	11,356	5,719	6,358	12,077	5,790	6,256	12,046
	56.94	68.92	62.68	58.84	76.99	67.55	65.47	78.88	71.91	66.25	77.76	71.77
seldom	1084	911	1,995	1,318	838	2,156	1,208	776	1,984	993	724	1,717
	12.39	11.29	11.86	15.06	10.39	12.82	13.83	9.63	11.81	11.36	9	10.23
sometimes	1,343	997	2,340	1,325	703	2,028	1,048	625	1,673	1,050	627	1,677
	15.35	12.36	13.91	15.14	8.72	12.06	12	7.75	9.96	12.02	7.79	9.99
usually	838	437	1,275	612	215	827	489	220	709	530	302	832
	9.57	5.42	7.58	7	2.67	4.92	5.6	2.73	4.22	6.06	3.75	4.96
always	504	163	667	346	99	445	271	81	352	376	136	512
	5.76	2.02	3.97	3.95	1.23	2.65	3.1	1	2.1	4.3	1.69	3.05
Total	8,752	8,069	16,821	8,749	8,063	16,812	8,735	8,060	16,795	8,739	8,045	16,784
	100	100	100	100	100	100	100	100	100	100	100	100

	(5) Medical treatment			(6) Public education			(7) Unemployment benefits			(8) Other social security benefits		
	not Habsburg	Habsburg	Total	not Habsburg	Habsburg	Total	not Habsburg	Habsburg	Total	not Habsburg	Habsburg	Total
never	3,586	4,364	7,950	5,265	5,949	11,214	6,392	6,921	13,313	6,177	6,861	13,038
	41.05	54.18	47.35	60.25	73.77	66.74	73.11	85.86	79.23	70.73	85.19	77.67
seldom	1139	898	2,037	1,105	693	1,798	983	563	1,546	1047	555	1,602
	13.04	11.15	12.13	12.64	8.59	10.7	11.24	6.98	9.2	11.99	6.89	9.54
sometimes	1,651	1,280	2,931	1,129	811	1,940	785	361	1,146	873	370	1,243
	18.9	15.89	17.46	12.92	10.06	11.55	8.98	4.48	6.82	10	4.59	7.4
usually	1,249	907	2,156	750	369	1,119	351	138	489	377	171	548
	14.3	11.26	12.84	8.58	4.58	6.66	4.01	1.71	2.91	4.32	2.12	3.26
always	1111	606	1,717	490	242	732	232	78	310	259	97	356
	12.72	7.52	10.23	5.61	3	4.36	2.65	0.97	1.84	2.97	1.2	2.12
Total	8,736	8,055	16,791	8,739	8,064	16,803	8,743	8,061	16,804	8,733	8,054	16,787
	100	100	100	100	100	100	100	100	100	100	100	100

Note: Table shows answer to the question: "In your opinion, how often is it necessary for people like you to have to make unofficial payments/gifts in these situations?“
Source: Life in Transition Survey 2006.
See main text for details.

Table 2: Descriptive statistics

	Mean	StdDev	Min	Max
	(1)	(2)	(3)	(4)
Part of Habsburg empire	.51	.50	0	1
Duration of affiliation with Habsburg (in years)	132.02	179.57	0	635
Distance to Vienna (in km)	715.91	665.08	51.24	8074.17
Individual-level variables				
Age of respondent	47.40	17.81	17	92
Male respondent	.43	.50	0	1
Worked for income during last 12 months	.49	.50	0	1
Native language	.92	.28	0	1
Ethnic minority	.07	.26	0	1
Education (omitted category: no degree)				
Compulsory schooling education	.19	.39	0	1
Secondary education	.22	.41	0	1
Professional, vocational school or training	.35	.48	0	1
Higher professional degree (university, college)	.17	.38	0	1
Post graduate degree	.01	.10	0	1
Religion (omitted category: atheist)				
Buddhist	.0009	.03	0	1
Jewish	.002	.04	0	1
Christian	.76	.43	0	1
Muslim	.11	.32	0	1
Other	.01	.12	0	1
Household-level variables				
HH has a car	.49	.50	0	1
HH has a secondary residence	.14	.35	0	1
HH has a bank account	.46	.50	0	1
HH has a credit/debit card	.38	.49	0	1
HH has a mobile phone	.74	.44	0	1
HH has a computer	.37	.48	0	1
HH has a access to internet at home	.23	.42	0	1
HH size (equivalent scale)	1.88	.69	1	6.50
HH number of children under 14	.36	.74	0	7

Data source: Life in Transition Survey (LITS) 2006; see main text for details.

Table 3: Membership in civic organization: marginal effects from probit

	17 countries in Eastern Europe (former Habsburg and neighbors)					5 countries that are partly Habsburg	
							+/- 200km to Habsburg border
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Part of Habsburg empire	.055 (.004)***	.054 (.004)***	.037 (.004)***	.036 (.004)***	.015 (.007)**	.011 (.006)*	.012 (.007)*
Age of respondent		.0002 (.0001)**	.0005 (.0001)***	.0005 (.0001)***	.0003 (.0001)***	-.0002 (.0002)	-.0002 (.0002)
Male respondent		.020 (.003)***	.020 (.003)***	.020 (.003)***	.018 (.003)***	.011 (.005)**	.012 (.006)**
Worked for income during last 12 months		.010 (.004)**	.002 (.004)	.002 (.004)	.003 (.003)	.003 (.005)	.006 (.007)
Controls for education level (6 categories)		yes	yes	yes	yes	yes	yes
Controls for religious affiliation (6 categories)		yes	yes	yes	yes	yes	yes
Native language		.013 (.006)**	.011 (.006)**	.011 (.006)**	.005 (.006)	.012 (.007)*	.014 (.008)*
Ethnic minority		-.002 (.006)	.001 (.006)	.002 (.007)	.004 (.007)	.013 (.010)	.024 (.013)*
Controls for HH-level property (8 variables)			yes	yes	yes	yes	yes
HH size (equivalent scale)			-.003 (.003)	-.004 (.003)	-.003 (.003)	.0003 (.004)	.0008 (.005)
HH number of children under 14			.001 (.003)	.001 (.003)	.001 (.002)	-.001 (.003)	-.002 (.004)
Urban area				-.00009 (.004)	.0008 (.003)	-.0002 (.005)	.003 (.007)
Metropolitan area				-.015 (.004)***	-.005 (.004)	-.010 (.006)*	-.009 (.008)
Full set of country dummies					yes	yes	yes
Obs.	16950	16866	16806	16806	16806	4958	3573
Pseudo-R2	.030	.061	.075	.077	.124	.081	.080

Dependent variable is answer to the question "Are you a member of (other) civic/voluntary organizations"
Marginal effects and standard errors from probit estimation.
Standard errors in parentheses: * significance at ten, ** five, *** one percent.
Data source: Life in Transition Survey (LITS) 2006; see main text for details.

Table 4: Membership in political party: marginal effects from probit

	17 countries in Eastern Europe (former Habsburg and neighbors)					5 countries that are partly Habsburg	
							+/- 200km to Habsburg border
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Part of Habsburg empire	.008 (.004)*	.013 (.004)***	.016 (.004)***	.014 (.004)***	.026 (.007)***	.020 (.008)***	.021 (.009)**
Age of respondent		0.000 (.0001)	.0003 (.0001)**	.0003 (.0001)**	.0005 (.0001)***	.0006 (.0002)**	.0007 (.0003)**
Male respondent		.038 (.004)***	.035 (.004)***	.034 (.004)***	.023 (.003)***	.021 (.007)***	.031 (.009)***
Worked for income during last 12 months		.001 (.004)	-.0002 (.004)	-.0002 (.004)	.007 (.004)*	.028 (.008)***	.034 (.010)***
Controls for education level (6 categories)		yes	yes	yes	yes	yes	yes
Controls for religious affiliation (6 categories)		yes	yes	yes	yes	yes	yes
Native language		-.029 (.008)***	-.028 (.008)***	-.028 (.008)***	-.019 (.007)***	-.011 (.011)	-.0006 (.015)
Ethnic minority		-.0006 (.007)	-.00005 (.007)	.0002 (.007)	-.003 (.006)	.003 (.012)	.002 (.015)
Controls for HH-level property (8 variables)			yes	yes	yes	yes	yes
HH size (equivalent scale)			.016 (.003)***	.015 (.003)***	.004 (.003)	.005 (.006)	.007 (.007)
HH number of children under 14			.002 (.003)	.002 (.003)	.002 (.002)	-.003 (.005)	-.004 (.005)
Urban area				-.009 (.004)**	-.008 (.003)**	-.006 (.007)	-.003 (.009)
Metropolitan area				-.018 (.005)***	-.019 (.004)***	-.041 (.007)***	-.054 (.009)***
Full set of country dummies					yes	yes	yes
Obs.	16974	16891	16827	16827	16827	4947	3564
Pseudo-R2	.0004	.043	.056	.058	.137	.152	.161

Dependent variable is answer to the question "Are you a member of a political party?"
Marginal effects and standard errors from probit estimation.
Standard errors in parentheses: * significance at ten, ** five, *** one percent.
Data source: Life in Transition Survey (LITS) 2006; see main text for details.

Table 5: Trust in people and institutions

	Habsburg effect	No. observations	Pseudo-R^2
	(1)	(2)	(3)
Trust other people: today	-.0008 (.074)	3388	.008
Trust other people: before 1989	.169 (.080)**	3074	.024
The presidency	.253 (.071)***	3380	.028
The government/cabinet of ministers	.234 (.071)***	3386	.031
The parliament	.249 (.071)***	3396	.035
Courts	.348 (.073)***	3359	.024
Political parties	.166 (.071)**	3352	.019
Armed forces	.180 (.073)**	3149	.025
The police	.265 (.072)***	3409	.019
Banks and the financial system	.316 (.074)***	3343	.026
Foreign investors	.378 (.074)***	3168	.022
Non governmental organisations	.279 (.075)***	3185	.032
Trade unions	.100 (.075)	3137	.020
Religious institutions	.343 (.073)***	3374	.071
r1			

Dependent variable in rows (1) and (2) is answer to the question "Generally speaking, would you say that most people can be trusted, or that you cant be too careful in dealing with people?" with the following categories: 1=Complete distrust; 2=Some distrust; 3=Neither trust nor distrust; 4=Some trust; 5=Complete trust. Category 6=Difficult to say set to missing in regressions.
Dependent variable in rows (3) to (14) is answer to the question "To what extent do you trust the following institutions?" with the same response categories.
All regressions use the same specification as in Table 3, column (7).
Coefficients and standard errors from ordered logit (ologit) estimation.
Standard errors in parentheses: * significance at ten, ** five, *** one percent.
Data source: Life in Transition Survey (LITS) 2006; see main text for details.

Table 6: Bribes to road police: ordered logit estimates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Part of Habsburg empire	-.447	-.466	-.393	-.393	-.398	-.137	-.344
	(.059)***	(.059)***	(.062)***	(.062)***	(.063)***	(.075)*	(.087)***
Interacted with road police in last 12 months		1.200	1.042	1.053	1.055	1.083	1.044
		(.070)***	(.074)***	(.076)***	(.076)***	(.078)***	(.093)***
Age of respondent			-.012	-.012	-.013	-.012	-.015
			(.002)***	(.002)***	(.002)***	(.002)***	(.003)***
Male respondent			.139	.127	.135	.168	.239
			(.062)**	(.062)**	(.063)**	(.064)***	(.078)***
Worked for income during last 12 months			.264	.293	.291	.220	.225
			(.065)***	(.068)***	(.068)***	(.069)***	(.084)***
Controls for education level (6 categories)			yes	yes	yes	yes	yes
Controls for religious affiliation (6 categories)			yes	yes	yes	yes	yes
Native language			-.512	-.461	-.456	-.044	.154
			(.093)***	(.095)***	(.094)***	(.101)	(.159)
Ethnic minority			-.310	-.334	-.335	-.228	-.177
			(.120)***	(.120)***	(.119)***	(.122)*	(.144)
Controls for HH-level property (8 variables)				yes	yes	yes	yes
HH size (equivalent scale)				.091	.097	.130	.145
				(.052)*	(.053)*	(.054)**	(.063)**
HH number of children under 14				-.082	-.082	-.072	-.042
				(.041)**	(.042)*	(.043)*	(.048)
Urban area					.203	.180	.062
					(.070)***	(.072)**	(.089)
Metropolitan area					.032	.087	.062
					(.087)	(.092)	(.110)
Full set of country dummies						yes	yes
Border sample (+/- 200km)							yes
Obs.	4992	4992	4973	4958	4958	4958	3574
Pseudo-R2	.005	.028	.043	.047	.048	.072	.062

Dependent variable is answer to the question "In your opinion, how often is it necessary for people like you to have to make unofficial payments/gifts in these situations? Interact with the road police." with the following categories: 1=Never; 2=Seldom; 3=Sometimes; 4=Usually; 5=Always.
Coefficients and standard errors from ordered logit (ologit) estimation.
Standard errors in parentheses: * significance at ten, ** five, *** one percent.
Data source: Life in Transition Survey (LITS) 2006; see main text for details.

Table 7: Bribes to various officials

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Part of Habsburg empire	-.344	-.110	-.337	-.393	.065	-.133	-.201	-.221
	(.087)***	(.092)	(.100)***	(.101)***	(.074)	(.091)	(.106)*	(.105)**
Used this service in last 12 months	1.044	.935	1.165	.951	1.081	1.194	1.555	1.386
	(.093)***	(.097)***	(.144)***	(.171)***	(.067)***	(.118)***	(.203)***	(.171)***
Age of respondent	-.015	-.007	-.012	-.006	-.006	-.010	-.010	-.008
	(.003)***	(.003)**	(.003)***	(.003)**	(.002)***	(.003)***	(.003)***	(.003)**
Male respondent	.239	.198	.187	.004	.025	.236	.187	.143
	(.078)***	(.083)**	(.088)**	(.087)	(.066)	(.083)***	(.100)*	(.099)
Worked for income during last 12 months	.225	.243	.200	.180	.228	.172	.037	.145
	(.084)***	(.094)***	(.099)**	(.097)*	(.074)***	(.092)*	(.110)	(.111)
Controls for education level (6 categories)	yes	yes	yes	yes	yes	yes	yes	yes
Controls for religious affiliation (6 categories)	yes	yes	yes	yes	yes	yes	yes	yes
Native language	.154	.035	.075	.054	.066	.107	.105	.234
	(.159)	(.171)	(.174)	(.177)	(.141)	(.174)	(.209)	(.220)
Ethnic minority	-.177	-.133	-.148	-.151	.022	.024	-.296	-.185
	(.144)	(.155)	(.169)	(.182)	(.122)	(.157)	(.203)	(.196)
Controls for HH-level property (8 variables)	yes	yes	yes	yes	yes	yes	yes	yes
HH size (equivalent scale)	.145	.076	.173	.097	.110	-.017	.082	.038
	(.063)**	(.072)	(.073)**	(.076)	(.056)*	(.072)	(.084)	(.086)
HH number of children under 14	-.042	-.048	-.078	-.068	-.026	-.112	.036	.009
	(.048)	(.056)	(.059)	(.058)	(.044)	(.058)*	(.064)	(.061)
Urban area	.062	-.035	-.076	.028	.064	-.080	-.205	-.101
	(.089)	(.098)	(.106)	(.104)	(.079)	(.099)	(.116)*	(.116)
Metropolitan area	.062	-.377	-.055	.017	.022	-.316	-.329	-.231
	(.110)	(.125)***	(.129)	(.125)	(.100)	(.119)***	(.145)**	(.145)
Full set of country dummies	yes	yes	yes	yes	yes	yes	yes	yes
Obs.	3574	3574	3571	3572	3571	3572	3574	3568
Pseudo-R2	.062	.061	.058	.041	.045	.065	.060	.057

Dependent variable is answer to the question "In your opinion, how often is it necessary for people like you to have to make unofficial payments/gifts in these situations?" with the following categories: 1=Never; 2=Seldom; 3=Sometimes; 4=Usually; 5=Always. Column (1): Interact with the road police; column (2): Request official documents (e.g. passport, visa; birth or marriage certificate, land register, etc) from authorities; column (3): Interact with the police on matters other than traffic and other than requesting documents; column (4) Go to courts for a civil matter; column (5): Receive medical treatment in the public health system; column (6): Receive public education (university, college, vocation); column (7): Request unemployment benefits; column (8): Request other social security benefits.
Coefficients and standard errors from ordered logit (ologit) estimation.
Standard errors in parentheses: * significance at ten, ** five, *** one percent.
Data source: Life in Transition Survey (LITS) 2006; see main text for details.