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## Working Paper

# 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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## **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

Do empires affect human values and behavior long after their demise? We hypothesize that the Habsburg Empire, which was characterized by a localized and well-respected administration, increased people's trust in local state services. In several Eastern European countries, communities on both sides of the long-gone Habsburg border have been sharing common formal institutions for over 90 years now. In border specifications that restrict identification to individuals living inside a restricted band around the former border, we find that historical Habsburg affiliation increases current trust and reduces corruption in local public services. There is some indication that the Habsburg effect is also transmitted in person-state interactions more generally, but not in interpersonal interactions. Past formal institutions can leave a legacy through cultural norms even after generations of common statehood.

*Keywords:* Habsburg Empire, trust, corruption, institutions, geographical discontinuity

*JEL classification:* N33, N34, D73, Z10

*Preliminary and incomplete. Please do not cite or circulate without authors' explicit permission. Comments welcome!*



*“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.*

## 1 Introduction

The famous phrase “The emperor is dead, long live the emperor!” indicates that, even though individual emperors may die, the empire lives on. But what if not one emperor, but the whole empire itself perishes? In this paper, we show that empires can leave a lasting legacy in cultural norms and values and the ensuing nature of human interactions even several generations after their formal institutions have ceased to exist. Specifically, we find that the Habsburg Empire, which went down in 1918, still affects trust and corruption in local public services in Central and Eastern Europe today. Our findings add to the growing literature indicating that history can have long-persistent effects (cf. Nunn 2009) through its impact on current formal institutions<sup>1</sup> as well as on values, beliefs, and cultural norms.<sup>2</sup> Our results indicate that long-gone formal institutions can have a lasting impact on cultural norms of behavior, in this case in interactions with the state.

The Habsburg Empire is historically known as a multi-ethnic state with a relatively well-functioning, respected bureaucracy. Historians characterize the Habsburg bureaucracy as “fairly honest, quite hard-working, and generally high-minded” (Taylor 1948, p. 44) – in contrast to other Empires in Central and Eastern Europe, like the Ottoman and Russian Empires (cf. Ingraio 1996; Subtelny 2007). We argue that this created trust among its inhabitants in the respectability of government institutions, with ensuing effects on the functioning of person-state interactions, particularly at the local level. However, the formal institutions ceased to exist with the collapse of the Habsburg Empire after World War I, breaking up into separate nations that have seen several waves of drastic institutional changes since. To test whether the cultural values and norms originating in the Habsburg Empire still endure today, we use the micro dataset of the 2006 Life in Transition Survey (LiTS) that provides measures of trust and corruption in many Central and Eastern European countries. We focus on the 17 countries that comprise the successor states of the Habsburg Empire and their neighboring countries. Drawing on a variety of historical sources, we coded the location of each observation in the LiTS dataset in terms of the status and duration of its affiliation with the Habsburg Empire. Yet, a simple comparison of cultural measures across countries with diverse

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<sup>1</sup> E.g., North (1981); Engerman and Sokoloff (1997); La Porta et al. (1998); and Acemoglu, Johnson, and Robinson (2001).

<sup>2</sup> E.g., Putnam (1993); Greif (1994); Alesina and Fuchs-Schündeln (2007); Guiso, Sapienza, and Zingales (2008a); Tabellini (2010).



populations, geographies, and intervening experiences may easily be biased by unobserved heterogeneity.

To identify the effect of the Habsburg Empire on current values and interactions, we therefore devise a border specification that compares individuals living in communities located within a 200-kilometer band around the long-gone Habsburg border, exploiting the geographical discontinuity created by the Habsburg Empire in Eastern Europe. In order not to capture unobserved country heterogeneity, we use country fixed effects to restrict the analysis strictly to variation within individual modern-day countries. This identification exploits the fact that the former Habsburg border cuts straight through five countries today – Montenegro, Poland, Romania, Serbia, and Ukraine. Communities on either side of the long-gone Habsburg “border” have been sharing a common statehood for several generations now. Additionally, we control for a large set of individual-level factors such as education, religion, language, wealth indicators, and urbanity.

Our results suggest that the Habsburg Empire still exerts effects on cultural norms and interactions of humans with their state institutions today. Comparing individuals left and right of the long-gone Habsburg border, people living in locations that used to be territory of the Habsburg Empire have higher trust in local public services like the police and courts. These trust differentials also transform into real differences in the extent to which bribes have to be paid for these public services. When analyzing the specific channels by which trust differences remain today, we find some indication of Habsburg effects on membership in political parties, suggesting effects on social capital or the willingness to engage in collective action. There is also some evidence for higher trust in state institutions more generally, although effects are weaker for trust in central public institutions. By contrast, there is no indication that trust in other people or in private institutions is higher. These results suggest that the legacy of the Habsburg bureaucracy lives on in person-state interactions, but not in interpersonal interactions. Finally, the Habsburg effect does not seem to depend on the duration of the affiliation with the Habsburg Empire. Evidence from a firm dataset, the Business Environment and Enterprise Performance Survey (BEEPS), corroborates the general pattern of results derived from the LiTS person dataset.

A set of specification tests validates a causal interpretation of the results. First, when we create “placebo” borders 100 kilometers inwards or outwards of the actual Habsburg border, we do not find any effects. This indicates that our results capture a discontinuity, rather than a general East-West pattern. Second, we verify that altitude does not vary significantly between the two sides of the former Habsburg border, thereby excluding obvious geographic differences between the Habsburg and non-Habsburg sample. Third, we do not find any significant difference between the two sides in terms of medieval city size, access to medieval trade routes, and presence of a medieval diocesan town. These results indicate that the Habsburg effect is not simply a perpetuation of differences that existed before Habsburg.

Our results indicate that political and judicial institutions that were in effect a long time ago have formed cultural values and norms that prevail until today. These “slow-moving institutions” (Roland 2004) are the link through which distant political and eco-

conomic history influences current outcomes. Given the waves of migration and displacement that accompanied the institutional disruptions that the successor countries of the Habsburg Empire have experienced since its demise, it seems likely that the cultural norms of behavior did not only survive by intergenerational transmission within family, but also through the persistent nature of continuous reciprocal interactions in local communities.

The paper is organized as follows. Section II provides theoretical and historical background and derives from it the main hypotheses to be tested. Section III describes our data. Section IV develops the empirical identification strategy. Section V presents our basic results of Habsburg effects on trust and corruption in local public services. Section VI reports a series of robustness checks on the identification and model specification. Section VII provides more detailed analyses of the trust channels, distinguishing different aspects of person-state and interpersonal interactions. Section VIII concludes.

## 2 Theoretical and Historical Background

This section starts out by discussing different channels through which history may have left a legacy for current outcomes and relates these to the existing literature. Next is a brief overview of parts of the history of the Habsburg Empire that relate to the subject of our analysis. From this theoretical and historical background, we derive the main hypotheses to be tested in this paper.

### 2.1 Why History Matters: Some Theory, with Reference to Related Literature

What are the mechanisms leading to the fact that history often has long-term repercussions for economic development today (see also Nunn 2009 for a review)?

First, historical circumstances and events can shape the state and evolution of formal institutions which survive and affect economic interactions and outcomes today (e.g., North 1981). Recent research on the importance of colonial rule for long-term economic development tends to emphasize its impact on current formal institutions, be it through the effect of large-scale plantation production on institutional development through its effect on economic and political inequality (Engerman and Sokoloff 1997), through the introduction of civil vs. common law legal systems (La Porta et al. 1998), or through persistence of property-rights institutions determined by initial disease environments (Acemoglu, Johnson, and Robinson 2001). Similarly, Acemoglu, Johnson, and Robinson (2005) argue that access to Atlantic trade affected the evolution of formal institutions in Western Europe, Nunn (2008) shows that external trade in slaves had long-run repercussions for economic development in Africa, Jha (2008) argues that medieval trade access led to institutions that promoted later religious tolerance in India, and Acemoglu et al. (2009) show that French invasion of Central Europe after the French Revolution brought radical institutional changes that left a long-lasting mark on economic development.

A second reason why past developments may be related to current developments is that both are affected by geography. Geographical and ecological factors that do not vary over time, such as climate zone, disease environment, natural endowments, coastal location, and continental orientation may have direct effects on economic development past and present (Diamond 1997; Sachs 2003). The effect of geography may also be intertwined with the development of formal institutions, for example, when a region's geographical endowment makes it lucrative for cash cropping (Engerman and Sokoloff 1997) or when disease environments determine institutional choices due to their effect on settler mortality (Acemoglu, Johnson, and Robinson 2001).

Third, historical events may have caused differential development of people's knowledge, human capital, which caused subsequent differences in economic development. For example, Glaeser et al. (2004) argue that European colonization may have left a long-term legacy not because of institutional development, but because colonial set-

tlers brought their human capital with them. Becker and Woessmann (2009) show that the Protestant Reformation affected later economic development, within Prussia and across countries, by raising literacy levels (required to read the bible). In a similar vein, Woodberry (2004) depicts a positive association between historic Protestant missionaries and modern-day school enrollment across colonized countries.

Fourth, history may matter for later economic development by affecting people's cultural norms and values which then persist over time. There is an increasing emphasis in the literature that cultural factors such as trust, manners of social interaction, and other values, beliefs, and norms have important repercussions for economic development (e.g., Algan and Cahuc 2010; Tabellini 2010). Probably the best-known argument for the importance of the cultural channel is Weber's (1904) hypothesis that a specific Protestant work ethic furthered capitalist development, although Becker and Woessmann (2009) and Cantoni (2009) find little evidence for this specific channel in historical indicators of economic development. Putnam (1993) conjectures that the culture of independence fostered by the experience of free city-states at the turn of the first millennium fostered a culture of independence that left a mark on social capital and economic development in Italy today, and Guiso, Sapienza, and Zingales (2008a) find supportive evidence. Greif (1994) describes how the collectivist vs. individual attitudes towards contract enforcement of Maghribi vs. Genoese medieval merchants affected their subsequent developments. Alesina and Fuchs-Schündeln (2007) suggest that the differing history of West and East Germany from 1945-1990 left a mark in different political preferences for redistribution.

Cultural evolution may also be closely interrelated with institutional development (Greif 2006; Greif and Tabellini 2010). Nunn and Wantchekon (2009) identify cultural norms and formal institutions as two separate channels of the effect of slave trade on economic development in Africa. Fisman and Miguel (2007) find that both cultural norms of the home country and legal enforcement mechanisms affect parking-violation behavior of United Nations officials in Manhattan. With respect to empires, evidence in Grosjean (2009) suggests that people living in areas that used to be part of the same empire have more similar trust values across Eastern Europe. Cultural norms may also relate to historical education, as shown by Tabellini (2010) who identifies historical measures of literacy and political institutions as correlates of cultural variables today that are related to economic development across European regions. Differing cultural norms can affect outcomes even under the same formal institutions, for example when they lead to a different functioning of the formal institutions.

The mechanisms of the transmission of cultural values and norms over time are not well understood so far. Most of the current literature focuses on intergenerational transmission within families (Bisin and Verdier 2000; Tabellini 2008b; Guiso, Sapienza, and Zingales 2008b), for example when looking at parent-child correlations (Dohmen, Falk, Huffman, and Sunde 2007) or when identifying links of U.S. immigrants with their or their ancestors' home countries (Guiso, Sapienza, and Zingales 2006; Giuliano 2007; Tabellini 2008a; Fernández and Fogli 2009; Algan and Cahuc 2010). Alternatively, cultural values and norms can persist through the very nature of local human interactions: If a person with a prior of trust moves into a distrustful town, he might quickly change over to a prior of distrust, and vice versa. Thus, through continu-

ous reciprocal behavior, a local equilibrium of trust or distrust may be maintained even with migration, and even without any family ties. In line with this argument, Ichino and Maggi (2000) show that workers moving into other branches of a large Italian firm in fact adopt local habits of their new region quickly. Similarly, the large literature on peer effects, in education and elsewhere, suggests that people's attributes may affect other people (see Sacerdote 2010 for a survey).

In this paper, we aim to test the fourth channel of history on cultural values and norms today, while controlling for the other channels, in the specific case of the Habsburg Empire.<sup>3</sup> Specifically, we are interested in whether persistent cultural values and norms in relation to the interaction of individuals and local state authorities can be a channel through which historical, but long-gone formal institutions can affect outcomes today. Beyond trust, we also analyze whether the effect extends to corruption as a real consequence in the interaction between citizens and the state.

## 2.2 Historical Background on the Habsburg Empire

Beginning in the 11<sup>th</sup> century, the Habsburg dynasty<sup>4</sup> collected a multitude of territories from Spain in the West over the Netherlands, Austria, the Dalmatian coast, Bohemia, Moravia, Hungary, and Bosnia to Galicia in the East. The Habsburg identification with Austria began when Rudolf IV of Habsburg was elected king of the Holy Roman Empire in 1273. Since then, the Habsburgs continuously expanded their territories, by marriage,<sup>5</sup> by succession to the throne, but also by wars – and even by wars that were waged without Austria. In the 16<sup>th</sup> century, more than half of Europe was ruled by the House of Habsburg, which was itself a decisive factor in keeping the vast country together. Charles V (1500-1558) ruled the Holy Roman Empire, a realm of almost four million square kilometers where “the sun never sets.” For five centuries, Austria was the great Central European superpower, until its dismemberment in World War I (Zöllner 1990). Reasons underlying the ultimate fall of the Habsburg Empire in 1918 include national intentions of the different peoples living in the Habsburg territories and the political will of the winning powers of World War I.<sup>6</sup>

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<sup>3</sup> In analyzing effects of empires, Mitchener and Weidenmier (2008) and Grosjean (2009) use gravity models to show that belonging to the same empire in general had effects on trade and cultural integration, respectively.

<sup>4</sup> The name Habsburg derives from the municipality and castle of Habsburg, in what is now Switzerland, where the Habsburg family originates. For simplicity, we generally use the term *Habsburg Empire* to refer to the entire Habsburg history, although it is sometimes used more narrowly to refer to the period 1526-1867. The name *Austrian Empire* is officially applied during 1804-1867, and *Austro-Hungarian Empire* officially describes the two states with one common reign during 1867-1918.

<sup>5</sup> “Bella gerant alii, tu felix Austria nube” (Let the others wage wars, you, fortunate Austria, marry), as a famous hexameter put it. This mostly related to the westwards expansion.

<sup>6</sup> For historical background on different economic aspects of the Habsburg Empire, see, e.g., Good (1984), Heinemeyer, Schulze, and Wolf (2008), Komlos (1983), and Schulze and Wolf (2009).

In Central Europe, Habsburg broadened its territory in 1526, when – after the death of Hungarian King Louis II – Ferdinand of Austria, brother of Holy Roman Emperor Charles V, was elected King of Hungary, Croatia, and Bohemia. Habsburg now had to bear the main burden of the Ottoman drive from the Balkans into Central Europe. Twice, the expanding Ottoman Empire tried to capture Vienna, in 1529 and 1684. The latter battle marked the beginning of the political hegemony of the Habsburg dynasty in Central Europe. Step by step, it conquered vast territories along the Danube – in Hungary, Croatia, Serbia, and Romania – constantly driving back the Ottomans. External events caused Habsburg’s north-eastward expansion: the First Partition of Poland in 1772, arranged by Russia and Prussia, brought Galicia and Lodomeria. The acquisition of Bukovina in 1775 was a side effect of the Treaty of Küçük Kainardca (1774) after the Russo-Ottoman War. Habsburg attempted to prevent Russia and its ally Serbia from gaining further territories in the area, until the conflict with Russia became notorious in the 19<sup>th</sup> century. To maintain a balance of power between the leading European powers, the Treaty of Berlin in 1878 allowed the Austro-Hungarian Empire to occupy Bosnia, Herzegovina, and the Sanjak of Novi Pazar in Serbia and Montenegro (Glenny 2000).

The Habsburg Empire is the prototype of a *Vielvölkerstaat* (state composed of many peoples) that largely respected the identity and local differences of various parts of the empire. Despite the national aspirations of the peoples within the empire, some aspects of Habsburg policy were widely accepted. In particular, the bureaucracy throughout the Empire was well respected by the population because of its reliability.<sup>7</sup> Taylor (1948, p. 44) paraphrases this as follows: “The Austrian bureaucracy was fairly honest, quite hard-working, and generally high-minded, it probably did more good than harm.”

Originally, the different parts of the Habsburg Empire were only loosely tied together. This changed during the 18<sup>th</sup> century when the organization was increasingly centralized, although most parts of the actual administration remained highly decentralized. Already Maria Theresa (1741-1765) began to establish a *Beamtenstaat* (an administration of civil servants) and instituted *Kreishauptmänner* (county governors) to supervise local administration in different parts of the Empire. Her son, Josef II (1765-1790), an enlightened and secularized monarch, resolutely continued this way. He ended censorship, induced complex legal reforms, established German as official language throughout the empire, and founded institutions of social and medical care.<sup>8</sup>

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<sup>7</sup> Several elements of the Habsburg bureaucracy survive to this day. For example, 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.

<sup>8</sup> Additional well-received aspects of Habsburg policy include transfers in the form of subsidies and infrastructure projects such as railroads to less developed regions in order to foster their integration. In the Habsburg lands, education was also more important than in the Russian and Ottoman Empires. As an exemplification, in his famous novel “The Bridge over the Drina”, Literature Nobel Prize laureate Ivo Andrić describes how the Habsburg rule introduced public infrastructure, well-functioning administration, and public order and created an era of relative security and advancement when it took over Višegrad, a town in the east of Bosnia and Herzegovina near Serbia, in 1878. See also Imamović (2007) and Bencze (2006). In addition, the Austro-Hungarian army was a functioning multicultural microcosm and an important instrument for integrating people from all over the Habsburg territories.

The Habsburg political structure and administration differed in central aspects from its neighbors in the East (for comparative treatments, cf. Ingraio 1996; Subtelny 2007). The Ottoman Empire pursued no comparable reforms (see Jones 1987, ch. 9, for an overview). It has been characterized as a “typical despotism” (Landes 1998, p. 398), a large entity with oppressive and exploiting rulers, politically and economically stagnating since the 17<sup>th</sup> century. Its subjects (*raya*, “protected flock [of the sultan]”) were deprived of political influence, and reforms in the late 19<sup>th</sup> century remained relatively weak. Hardly any secular education existed. Bribery was an accepted phenomenon, institutionalized and even expected by officials (Shaw 1976; Imber 1990; İnalçık 1996). 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 real parliamentary influence until the end of the monarchy in 1917 and did not allow for decentralized political development (Bartlett 2005; Subtelny 2007). Prussia, by contrast, while also known for a well-developed bureaucracy and education system, conceded less autonomy to its outer territories than Habsburg. Compared to its neighbors in the east and the north, the Habsburg state thus ruled in a manner that was more acceptable and predictable for the inhabitants of the empire.

### 2.3 Derivation of Hypotheses

From the theoretical and historical discussion, we infer two main hypotheses on the enduring effects of the Habsburg Empire that we want to test in this paper. First, because of the historical experience of a relatively decentralized, honest, and widely accepted state bureaucracy, we hypothesize that Habsburg positively affected people’s trust in local public services. Second, we expect that this enduring effect on people’s values reduces corruption in interactions with the local administration, despite the fact that formal institutions, laws, and legal regulations do not differ anymore between former Habsburg and non-Habsburg areas. Since some decentralized Habsburg institutions like the county governors (*Kreishauptmänner*) have endured for very long, we expect them to have impacted human values and everyday interactions with the local administration. 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 – both in the form of internal norms and in how institutionalized rules are carried out locally.

We also aim to address three more detailed hypotheses on the specific ways in which Habsburg left a legacy. Third, given the better functioning of local collective action, we expect that Habsburg led to a stronger willingness to participate in civic organizations and political parties – what the literature often uses as proxies for social capital – as an expression of involvement with collective groupings. Finally, we suggest two more detailed hypotheses on the trust channel. Fourth, an open question is whether Habsburg raised individuals’ trust in the state more generally, or only at the local level. While it seems more likely that trust in the state survived for local public services, where the conduct and execution could have remained different despite the same formal legal

rules, differential trust in central state institutions may still have survived even though centralized state institutions and central public services have been the same for former Habsburg and non-Habsburg areas for a long time. But, fifth, given that the historical background suggests that the Habsburg Empire affected person-state interactions but interfered little with local cultures and interpersonal interactions, we do not expect that it had a long-term effect on people's trust in general, when it comes to relations with other people and private entities. Consequently, we also do not necessarily expect differences in unofficial payments in private interactions.



### 3 Data: Trust and Corruption in the Life in Transition Survey (LiTS)

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 such as age, gender, and education, the survey collected information on 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, Mongolia, and Turkey.<sup>9</sup> In each country, 1,000 households were interviewed, deriving from a sample of 20 households in 50 locations (primary sampling units).<sup>10</sup> The LiTS dataset contains information on the municipality of residence of survey respondents. Figure 1 displays the location of municipalities in the LiTS dataset.

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 part of the survey. Consequently, our dataset 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, and Ukraine. Table 1 documents which of these countries ever belonged to the Habsburg Empire and which did not. About half of the total sample is made up of respondents living in areas that formerly belonged to the Habsburg Empire.

For each municipality in our data, we collected information on affiliation with the Habsburg Empire, including the duration of membership. Our sources for this information are Hrvatski Povijesni (2003), Kinder and Hilgemann (2004), Leisering (2004), Magocsi (2002), Reden (1995), and Rothaug (2001). Furthermore, we geo-coded municipality data to compute distances among the locations. We use this information below to restrict the sample to respondents in municipalities within a certain distance of the Habsburg border.

Our analyses focus on two main sets of outcome measures, reflecting trust and corruption in local public services. The LiTS questionnaire surveys trust in public institutions by asking, "To what extent do you trust the following institutions?" with a list institutions including, among others, the police and courts as what are mostly local public services and central state institutions such as the presidency, the government/cabinet of ministers, the parliament, political parties, and armed forces, as well as trade unions as an example of a non-state institution. In contrast to other comparable surveys that

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<sup>9</sup> Other studies that use the LITS database to study trust in the economic context include Aghion et al. (2010) and Grosjean (2009).

<sup>10</sup> Per household, one respondent was sampled following the Kish grid method (adult person in household who last had birthday). In the empirical analysis, we cluster standard errors by primary sampling unit (PSU).

survey trust (e.g., the World Values Survey or the US General Social Survey), the LiTS asks respondents to express the intensity of their trust beliefs.<sup>11</sup> The LiTS survey uses the following five-category scale: complete distrust, some distrust, neither trust nor distrust, some trust, and complete trust. We exclude (few) observations reporting the additional category of “difficult to say” from our regression analyses. In addition, the LiTS questionnaire also surveys trust in people by asking, “Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people?”

The LiTS questionnaire surveys corruption in public services by asking, “In your opinion, how often is it necessary for people like you to have to make unofficial payments/gifts in these situations?” including the road police, other police, and courts as local public services. Again, corruption is measured on a five-point categorical scale, ranging from never over seldom, sometimes, and usually to always.

At a descriptive level, Table 2 shows that distrust in and corruption of the police and courts are higher in formerly non-Habsburg areas than in formerly Habsburg areas.

In analyzing the specific channels of possible trust effects, we also analyze measures of membership in organizations, which is often used as a measure of social capital (Glaeser, Laibson, and Sacerdote 2002). The LiTS questionnaire asks, “Are you a member of? (a) a political party, (b) other civic/voluntary organizations (club, association).” The respondent can answer with yes or no.

In addition to the outcome variables, the LiTS dataset provides a rich set of covariates observed at the individual level. These include respondents’ age, gender, education, religion, and indicators for whether respondents worked for income during last twelve months, for whether their native language is an official national language, and for whether they belong to an ethnic minority. In addition, household-level information is reported on household size, the number of children under age 14, and a set of possessions such as cars, credit cards, and mobile phones. Table 3 reports descriptive statistics of these variables.

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<sup>11</sup> 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 superior.

## 4 Empirical Model

To estimate whether historical affiliation with the Habsburg Empire has a lasting effect on cultural and social norms and values, our basic model expresses the cultural variables  $y$  – the measures of trust and corruption – of individual  $i$  in country  $c$  as a function of an indicator whether the individual lives in a community that historically used to be affiliated with the Habsburg Empire,  $H$ , and a set of individual-level and household-level control variables  $X$ :

$$(1) \quad y_{ic} = \alpha + \beta H_{ic} + X'_{ic} \gamma + \varepsilon_{ic}$$

Estimation at the individual level in a multivariate regression framework allows controlling for observable factors that vary systematically across individuals in our sample. We divide the rich set of control variables into two parts. The first set of controls includes variables where there is considerable confidence that they are exogenous to the Habsburg effect – individual age and gender – and variables whose effect we want to separate from any possible effect of the historical Habsburg administration – language, ethnic minority status, and religion. The second set of controls includes variables that may well be viewed as endogenous to the Habsburg effect and may thus not be included in estimating the reduced-form Habsburg effect – including individual working status, sets of indicators of household property and of education, urban or metropolitan character of the community location, household size, and the number of young children. Given that the LiTS sampling was based on clustered locations, we allow for clustering of the standard errors  $\varepsilon$  at the location (PSU) level throughout this paper.

Identification in this setting is hampered by the fact that not all important factors may be readily observed. Most obviously, countries may differ for many other reasons. When identification comes from cross-country variation between such former-Habsburg countries as the Czech Republic or Slovenia on the one hand and such non-Habsburg countries as Belarus or Moldova on the other hand, important general country characteristics such as aspects of geography and formal institutions may go unobserved. Such unobserved country heterogeneity, if correlated both with former Habsburg status and with cultural norms, would introduce omitted variable bias in the estimates of  $\beta$ .

To address such bias from omitted country variables, as a first step we include country fixed effects in the model specification. This model specification exploits the fact that the former Habsburg border cuts through several Central and Eastern European countries. People living in these countries have been sharing a common set of formal institutions at least since the dissolution of the Habsburg Empire in 1918. But part of these people live in territories that used to be on Habsburg soil and part of them in territories that did not belong to the Habsburg Empire. By including country fixed effects in the model, identification comes solely from variation within each country. This effectively restricts identification to the sub-sample of countries which encompass both areas that used to be part of Habsburg and areas that were never part of Habsburg. This sub-sample includes five countries: Montenegro, Poland, Romania, Serbia, and Ukraine. The within-country share of individuals in our data who live on soil that used to belong

to Habsburg is between one third and one half in Montenegro, Poland, and Romania, while it is low in Ukraine and high in Serbia (see Table 1).

While within-country identification will solve the most severe issues of unobserved heterogeneity, countries like Poland, Romania, and in particular Ukraine still have such a sizeable geographical expansion that important factors may yet remain omitted from the model. Therefore, as a second step, we further restrict the sample to individuals living within a restricted band around the former Habsburg border:

$$(2) \quad y_{ic} = \alpha_c + \beta H_{ic} + X'_{ic} \gamma + \varepsilon_{ic} \quad \text{if } i \in \text{border region}$$

where  $\alpha_c$  is a full set of country fixed effects and border region refers to a close geographical band around the Habsburg border. The Habsburg border – no longer existent at least since 1918 – gives rise to a geographic discontinuity within the five-country sample. In the spirit of a geographic regression-discontinuity design, this border specification identifies the Habsburg effect by comparing individuals left and right of the former Habsburg border living in reasonable proximity to one another. Proximity of residence, within a common region that is divided by a non-existing border, is likely to ensure similarity in important unobserved variables. To balance the desire for a narrow band to ensure similarity against the desire for large enough samples to retain statistical power, we choose a bandwidth of 200 kilometers (124 miles) around the historical Habsburg border.<sup>12</sup>

To ensure that the “control group” to which the Habsburg “treatment group” is compared does not include locations that had actually also been exposed to the Habsburg treatment at some time, the definition of the Habsburg variable  $H$  throughout the analyses is an indicator of whether a location has ever been part of the Habsburg Empire. By contrast, defining the Habsburg variable by Habsburg affiliation at any particular point in time would mean that part of the “control group” had also received a “Habsburg treatment” at some point in history. As one example, defining the Habsburg treatment by its borders just before its demise in 1918 would mean that several regions that had been part of Habsburg until 1908 would constitute a substantial part of the control group in the border sample.

This specification of our model assumes that the Habsburg treatment effect is independent of the length of the treatment. To test for the validity of this assumption, we will also estimate models that allow the Habsburg effect to differ by length of a community’s affiliation with the Habsburg Empire:

$$(3) \quad y_{ic} = \alpha_c + \beta_1 H_{ic} + \beta_2 D_{ic} + X'_{ic} \gamma + \varepsilon_{ic} \quad \text{if } i \in \text{border region}$$

where  $D_{ic}$  is the duration of the Habsburg affiliation of the community in which individual  $i$  lives. By centering duration at 100 years of affiliation, the main Habsburg dummy

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<sup>12</sup> We also experimented with even narrower bandwidths. Results are very similar when the sample is restricted to individuals within 150 km from the Habsburg border. While even narrower bands often tend to lose statistical significance due to small sample sizes, the key results on trust even hold with a bandwidth of 50 km (31 miles).

$H_{ic}$  measures the effect of having been part of the Habsburg Empire for 100 years and  $D_{ic}$  measures whether a longer or shorter duration than 100 years differentially affects the outcomes.

The definition of the Habsburg variable by whether the individual lives in a location that has ever been part of the Habsburg Empire also means that it is not straightforward to define the proper Habsburg “border”. In fact, this border never existed in the specific shape, but is defined by the enveloping shape of Habsburg borders at any time in history. Therefore – but also to ensure even better comparability of the treatment and control group on the two sides of the former Habsburg border – rather than literally simply including any observation within 200 km from the Habsburg border in the sample, we actually implement the border sample using a simple geographic matching algorithm. Individuals are only included in the border sample if there is a match in the dataset within 200 km on the other side of ex-Habsburg border. That is, observations enter the sample only if reasonably close-by observations exist on the other side that have never been subject to the Habsburg treatment. This means that the bandwidth is effectively much smaller than 200 km, because there is usually no community placed directly at the border. It also means that the effective bandwidth varies across regions depending on whether a match exists on the other side of the border or not. This way, our results are not driven by observations that cannot be matched with similar close-by observations. The border sample is illustrated in Figure 1, where the light blue circles and white triangles depict the LiTS observations in the band of 200 km around the former Habsburg border.<sup>13</sup>

Columns (7)-(10) of Table 3 compare the Habsburg and the non-Habsburg part of the border sample in terms of their background variables. The fact that there are hardly any differences confirms that the border specification focuses the analysis down to a treatment and control group that are very similar apart from their difference in Habsburg treatment status.<sup>14</sup>

Our empirical identification is designed to identify a specific mechanism through which the history of the Habsburg Empire may affect outcomes today. Of the four main mechanisms discussed in the literature (see Section II.A above) – formal institutions, geography, human capital, and cultural norms – we aim to shut down the first three ones. By identifying within regions that have been part of the same country for more than 90 years, we exclude the possibility that Habsburg history matters through differing formal institutions today. By focusing on a narrow band of observations, we also exclude the channel that history matters because of geographical differences. Finally,

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<sup>13</sup> We also looked at effects along the Habsburg border as of 1914 (“Habsburg 1914”). The problem is that some parts of what is now Serbia and Montenegro split off from Habsburg in 1908 and are counted as being outside Habsburg (“untreated”) when using the 1914 border, blurring the identification. We can drop observations in Serbia and/or Montenegro, an exercise we describe further below.

<sup>14</sup> The only differences that seem to come out are a higher share of respondents from an ethnic minority on the Habsburg side and the somewhat higher level of education on the Habsburg side. The former is consistent with the inclusive nature of the Habsburg rule, the latter with their stronger education efforts. In our regressions, we control for these and other variables to account for these limited differences on the two sides of the border.

having been part of the same country for three generations means that education systems have been the same, and we control for differences in educational attainment at the individual level. This setup allows us to focus in on the effect of the historical affiliation with the Habsburg Empire on observed levels of trust and corruption today.

In Section VI below, we will test the validity of the border identification model in several specification tests. Among others, we spuriously move the discontinuity by 100 km to either side, to ensure that it does not simply capture linear effects of the outward expansion of the Habsburg Empire. We test for geographical differences of observations on either side of the discontinuity, to ensure that the Habsburg border does not coincide with obvious geographical barriers. We also test whether observations on either side of the border differ in dimensions that existed before the expansion of the Habsburg Empire, such as medieval city sizes and the existence of medieval trade routes and diocesan cities. All specification tests corroborate the validity of the border specification.

The measures of trust and corruption are categorical variables indicating the strength and degree of ubiquity of these conditions. To account for the ordered nature of the outcome variables, we estimate ordered logit models, which have the following form:

$$\begin{aligned}
 \text{logit}(p_1) &= \log \frac{p_1}{1-p_1} = \alpha_1 + \beta' X \\
 \text{logit}(p_1 + p_2) &= \log \frac{p_1 + p_2}{1-p_1-p_2} = \alpha_2 + \beta' X \\
 &\vdots \\
 \text{logit}(p_1 + p_2 + \dots + p_k) &= \log \frac{p_1 + p_2 + \dots + p_k}{1-p_1-p_2-\dots-p_k} = \alpha_k + \beta' X \\
 \text{with } & p_1 + p_2 + \dots + p_k + p_{k+1} = 1
 \end{aligned}
 \tag{4}$$

where  $X$  here contains both the indicator for affiliation with the Habsburg Empire and the set of control variables. In this proportional-odds model, the odds ratio of the event is independent of the category  $j$ . The odds ratio is assumed to be constant for all categories.

Alternatively, we estimated a generalized ordered logit model which allows for non-proportional odds (Williams 2006; see also Maddala 1983; Long 1997). Results are very similar. Another alternative is to ignore the categorical nature of the outcome variable and perform ordinary least squares (OLS) regressions (see Blanchflower and Oswald (2004) for a similar comparison between ordered logit and OLS). Again, results are qualitatively similar.

## 5 Main Results

Our main results relate to the effect of historical affiliation with the Habsburg Empire on current people's trust in local public services – the police and courts – and on real consequences of such values in terms of corruption in these person-state interactions.

### 5.1 Trust in Public Services

The police and the courts are two essential public services with which citizens interact. In Table 4, we look at the effect of living in a former Habsburg location on the trust in the police. In the first three columns, we use the full sample of 17 countries that were formerly part of the Habsburg Empire or neighboring countries thereof. In column (1), we present a simple bivariate regression showing a positive Habsburg effect, i.e. higher trust in the police.<sup>15</sup> This is in line with the descriptive evidence of Table 2 discussed above. In columns (2) and (3), we add further variables to control for individual-level and household-level heterogeneity. The variables in column (2) are arguably exogenous to the Habsburg treatment, whereas those in column (3) are potentially affected by past Habsburg affiliation. In principle, affiliation with the Habsburg Empire might have affected income and consumption levels as well as education, urbanization and fertility, so those variables might constitute channels by which trust is influenced. Whereas adding the basic individual-level control variables in column (2) leaves the Habsburg coefficient unaffected, adding the further controls slightly lowers the Habsburg coefficient.

The Habsburg effect uncovered in the first three columns might be partly driven by cross-country differences in trust. Therefore, in columns (4) to (6) we look at the border sample of respondents living within 200km of the former Habsburg border in those 5 present-day countries which were partly Habsburg. All regressions include country fixed effects, so identification comes from within-country variation close to the former Habsburg border. As before, we start with a bivariate regression in column (4) and then add further controls in columns (5) and (6). The coefficients are very similar to those found in the full 17-country sample. However, now we can be sure that results aren't driven by cross-country institutional differences.

We can further narrow down the sample to only observations within 100km of the border. The Habsburg coefficient remains significant and is not statistically different from the one in the larger band. Generally, our qualitative results hold throughout when

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<sup>15</sup> Here we concentrate on coefficient estimates and the implied direction of the effects. Due to the categorical nature of the variable, there are separate marginal effects for each category of the outcome. This increases table output by factor 5 and makes discussion somewhat cumbersome. For instance, marginal effects of the Habsburg treatment computed on the basis of Table 4, column (1) are as follows: affiliation with the Habsburg Empire *reduces* the probability of answering (i) complete distrust by 3.4% and that of answering (ii) some distrust by 0.5% and *increases* the probabilities of answering (iii) neither trust nor distrust by 0.8%, that of answering (iv) some trust by 2.3% and that of answering (v) complete trust by 0.8%. Overall, the average of the *absolute* value of the percentage change across categories is 1.6%.

looking at smaller bands, but due to the smaller sample size, standard errors go up and we sometimes lose statistical significance. In the rest of the paper, we therefore look at the 200km-band around the border.

Note that in the following, we always just report results of the full control specification, unless results differ when using the smaller control specification (see Table 9).

Our second trust outcome is trust in the courts. Table 5, columns (1) and (2) show specifications equivalent to columns (3) and (6) of Table 4. Again, trust levels are higher for individuals in former Habsburg municipalities. The natural question is whether these higher trust levels in two important local public services, come along with differences in interaction between citizens and the public authorities on both sides of the border.

## **5.2 Corruption of Public Services**

The LiTS questionnaire asks about unofficial payments/gifts when interacting with road police, “other” police and the courts. We expect corruption to be lower on Habsburg side, in line with the higher trust people have in the police and in the courts. In Table 5, columns (3)-(8), we present specifications equivalent to columns (3) and (6) of Table 4 where the outcome variable measures bribes to the road polices, to other police, and to the courts. For all three outcomes, we find lower likelihood of bribes for Habsburg respondents.

Obviously, the effect may depend on whether a respondent did have contact with the road police at all. Row (2) controls for this variable. While respondents that had contact with the road police in the previous twelve 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.

Our main findings so far suggest that previous affiliation with the Habsburg Empire increases trust levels and lowers corruption.



## 6 Robustness

We assess the robustness of our results by employing various specification tests of our border specification (see Imbens and Lemieux 2008; Lee and Lemieux 2010). First, we check whether we find a treatment effect when spuriously moving the Habsburg border inwards or outwards. There should not be an effect when comparing municipalities on both sides of a meaningless border. Second, 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, as captured by altitude. 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. Third, we look at indicators pre-dating the (expansion of the) Habsburg Empire to see whether effects we find after the fall of the Habsburg Empire only perpetuate pre-existing differences before the Habsburg Empire came into being. In contrast to the previous robustness check which uses largely time-constant geographic characteristics, this check uses indicators that might vary over time. In addition, we analyze two possible dimensions of heterogeneity of the Habsburg effect – with respect to the duration of affiliation with the Habsburg Empire and to the alternative neighboring empires – and close by some additional robustness checks.

### 6.1 Pseudo Borders: Moving the “Treatment” Inward or Outward

A potential concern with our findings is that they only capture East-West differences, but not a genuine Habsburg effect. If this were the case, we should find an effect also when spuriously moving the Habsburg border by 100km to the West or to the East. We implement this falsification test as follows. In order to be as comparable as possible to the previous analysis, we restrict the estimation sample to be the border sample (+/- 200km from true Habsburg border in the 5-country sample). In the first exercise (row 1 in Table 6), estimation is restricted to Habsburg municipalities (within the 200km band of the true Habsburg border) and treatment is defined as being “to the left” of a pseudo border that is moved 100km inwards relative to the true Habsburg border. In the second exercise (row 2 in Table 6), estimation is restricted to non-Habsburg municipalities (within the 200km band of the true Habsburg border) and treatment is defined as being “to the left” of a pseudo border that is moved 100km outwards relative to the true Habsburg border.

We find that *all* effects at the pseudo borders are statistically insignificant. If anything, the point estimates point into the other direction.

This is supportive evidence that in our main analysis we are picking up a genuine Habsburg effect and not just an East-West difference.

## **6.2 Geographical Comparison of Habsburg and Non-Habsburg Areas**

This robustness check is meant to test whether there are geographical differences between the Habsburg and Non-Habsburg areas in the border sample. Such differences might derive if the Habsburg dynasty chose to expand only into certain types of geographical regions and, for example, stop before more mountainous areas. To test this, we regress the altitude of the municipalities in the border sample on a Habsburg indicator (column (1) of Table 7). The coefficient on the Habsburg indicator is 40.8 meters, with a  $t$ -value of 1.01. When using robust regression analysis that gives less weight to outliers (in terms of altitude), the point estimate on the Habsburg coefficient is even lower at 25 meters.

We conclude from this robustness check that Habsburg municipalities do not systematically differ in altitude compared to non-Habsburg municipalities. This dilutes 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 neighbors.

## **6.3 Comparison of Pre-Existing Factors between Habsburg and Non-Habsburg Areas**

Another potential worry is that the Habsburg Empire might have expanded into areas that were distinct from areas outside the (new) Habsburg border in important dimensions related to 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, beliefs, and levels of trust already before the Habsburg Empire came into being.

To address these issues, we collect a series of variables capturing economic development, exposition to outsiders, and cultural features 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 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. We use city size in 1400, well before the maximum expansion of the Habsburg Empire, as an indicator of economic development. We find that cities inside and outside the Habsburg borders do not differ systematically in population size. If anything, the sign suggests that cities on the Habsburg side were somewhat smaller (see column (2) of Table 7).

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 regressing an indicator of major trading cities (Magocsi 2002) on our Habsburg indicators, we do not find a statistically significant effect (column (3) of Table 7).

Finally, cultural values in different parts of Eastern Europe might have been influenced by a strong presence of the Church. We use an indicator variable for whether a city was a diocesan town in 1450 (Magocsi 2002). Again, the location of diocesan towns does not vary significantly by later affiliation with the Habsburg Empire (column (4) of Table 7).

We take this last set of robustness checks as evidence that the Habsburg Empire did not systematically expand into certain areas to exploit pre-existing advantages in terms of economics, trust, and values. Together, we conclude from the three sets of robustness checks that we identify a genuine effect of the former Habsburg border and do not pick up confounding effects.

## 6.4 Duration of Affiliation with Habsburg Empire

So far, we have defined affiliation with the Habsburg Empire as a binary variable. The implicit assumption is that affiliation with the Habsburg Empire has a homogeneous effect, independent of duration of affiliation and of the comparison group on the other side of the border. In this and the next subsection we look at whether there is in fact heterogeneity in terms of duration of affiliation with the Habsburg Empire and in terms of alternative neighbouring empires.

As described above, in equation (3) we normalize duration of affiliation with the Habsburg Empire to 100 years. Table 8, panel A, shows both the main Habsburg coefficient (binary variable) and the duration variable. The coefficient on the main Habsburg coefficient can be interpreted as the effect of being affiliated with the Habsburg Empire for 100 years. The duration coefficient measures whether longer or shorter duration of affiliation increases or decreases the impact on our outcomes. It turns out that, for all five trust and corruption outcomes, the duration effect is statistically insignificant. This is consistent with the interpretation that there is an effect of ever having been exposed to Habsburg rule, rather than of the length of exposure. It also gives support to our implementation of the Habsburg treatment as “Habsburg ever”. At the same time the absence of a duration effect has theoretical implications and is consistent with models in which a long-term equilibrium can be tipped by short-term exposure, such as in Guiso, Sapienza, and Zingales (2008b).

## 6.5 Alternative Neighboring Empires

A second dimension of heterogeneity relates to possible differences between the alternative neighboring areas that form the control group for the Habsburg treatment. Three different empires ruled in the area: the Ottoman Empire, Russia, and Prussia. In our

border sample, nearly three quarters of the observations in areas that ever belonged to one of the other three empires belonged to the Ottoman Empire, with Russia and Prussia dividing the remaining part. Consequently, while individual sample sizes for the Russian and Prussian alternatives are too small to yield enough statistical power, one robustness specification is to restrict the control group to only those areas that belonged to the Ottoman Empire. Results, reported in panel B of Table 8, show that our previous results are fully robust in this restricted sample.

If, alternatively, we use the full border sample and include a control for those non-Habsburg areas that were *not* part of the Ottoman Empire, this variable is never significant, indicating that trust and corruption levels cannot be significantly differentiated between Ottoman and non-Ottoman parts of the non-Habsburg control group (not shown). Consequently, we cannot reject the interpretation that our results are general relative to all neighboring empires, although they are clearest in the comparison to previously Ottoman areas.

Another issue is that substantial parts of our Habsburg treatment group at some stage in history had also been part of the Ottoman Empire. In fact, also among the observations in our border sample that had ever been part of the Habsburg Empire, nearly three quarters had also at some stage been part of the Ottoman Empire, making Ottoman influence something that hardly differentiates the Habsburg treatment and control groups in our analysis. To account for Ottoman influence, in an alternative specification (not shown) we include an indicator for ever having been part of the Ottoman Empire as an additional “treatment” to the indicator for ever having been part of the Habsburg Empire. The Ottoman indicator is never significant, and the Habsburg effect remains robust (although statistical significance becomes marginal for the three corruption outcomes). Our results thus reflect an influence of Habsburg affiliation (relative to lack of Habsburg affiliation), and no similar results are given for Ottoman affiliation (relative to lack of Ottoman affiliation).

## **6.6 Additional Robustness Checks**

We perform a number of further robustness checks. First, we would like to see whether our results depend on any particular country in the five-country border sample. When we drop any of the five countries at a time, we find results (not shown) to be robust.

Second, we can run OLS regressions ignoring the ordered nature of the trust and corruption outcomes (see Blanchflower and Oswald (2004) as a prominent example of this approach). Again, we obtain the same qualitative results (not shown).

Third, we assess the robustness of our border specification with respect to the size of the band around the Habsburg border. Our main results hold also when looking at smaller bands of 100km (for an example, see column (7) of Table 4) or even 50 km (not shown), although significance drops due to smaller sample size.

Overall, we believe that we have uncovered a robust and genuine effect of past affiliation with the Habsburg Empire on (higher) trust in the police and in the courts and on (lower) corruption in interactions with the police and the courts.

## 7 Social Capital and Person-State vs. Interpersonal Interactions

Our main results suggest that trust in local public services like the police and the courts is higher in Habsburg areas of Central and Eastern Europe and goes along with lower corruption levels in interactions with civil servants. This is well in line with the historical descriptions of the Habsburg Empire as more honest, decentralized state than the neighboring Ottoman and Russian Empires which has fostered trust in public services at the local level and reduced corruption.

In this section, we want to address several important issues. First, to understand whether the main results can be explained by higher engagement of citizens (both “users” and “providers” of public services) in their local community, we look at membership in political parties and in other civic organizations. This is often used as a measure or proxy of social capital.

Second, we want to see whether there differences in trust levels on both sides of the Habsburg border, not only in local public services, but also in (a) central public services (like the presidency or the parliament) or in (b) other (private) individuals or (c) private institutions or firms. Here, historical accounts do not give reason to expect any differences across the Habsburg, Ottoman and Russian Empires.

As a consequence, it would be disturbing to find a Habsburg effect on trust in a central public institution like the government. Such differences would either indicate differential *perceptions* of the same central state institution or would be suggestive of differential treatment (favoritism?) of different parts of the country.

Similarly, even if local public officials can(not) be trusted, this should not affect whether other people or other private institutions (e.g. trade unions) -- which have no relation to past and present experiences of the local bureaucracy -- can be trusted or not.

Finally, as a robustness check, in this section, we want to see whether the experience of individuals with local public services is shared by firms. To do so, we draw on a business survey in which firms on the Habsburg side of the border declare that local public services are in fact less corrupt and more efficient.

### 7.1 Social Capital: Membership in Political Parties and in Civic Organizations

A commonly used measure of social capital is membership in organizations (see Glaeser, Laibson, and Sacerdote (2002)). LiTS respondents are asked separately about membership in political parties and in civic organizations. Social capital is often seen as contributing to general trust levels (as measured by trust in other people). It is therefore interesting to see whether social capital in the form of membership in political parties or in civic organizations follows the same pattern as trust in local public services.

In Table 9, we present results for membership in political parties (columns (1)-(4)) and civic organizations (columns (5)-(8)). This table is only case where there is some difference (in terms of statistical significance) between “small” and “large” control model. The table displays marginal effects from probit regressions. On the basis of column (2), a respondent living in the former Habsburg area is 1.4 percentage points more likely to be a member of a political party. Given that on average only 9 percent of the households in our sample are members of a political party, this is a quantitatively significant effect. The Habsburg effect in column (5) implies that the probability of being a member of a civic organization is 3.5 percentage points higher if the respondent lives in a former Habsburg municipality. Given that in our sample 4 percent of the respondents are members of a civic organization, this is a sizable effect. However, in the border sample, in the full specifications (columns (4) and (8)), the estimated effects are statistically insignificant. Overall, we the results of Table 8 provide only weak evidence, if any, of a Habsburg effect on social capital.

## **7.2 Trust in Local vs. Central Public Services**

Whereas honest bureaucrats in the local public administration under Habsburg rule might have left a legacy that still affects current-day interactions between citizens, we do not see a Habsburg effect *within* country (i.e. in our border sample) when looking at trust in central public institutions. Whereas the police and the courts are likely to function differently in different parts of the country and the local policemen and the local judges act are more or less trustworthy than in other parts of the country, the same cannot be said about central public institutions. There is only one president, one central government, one parliament etc. Hence, differences in trust in these central public services are *ex ante* unlikely. If we were to find differences between respondents on both sides of the Habsburg border, possible explanations would be a different perception of individuals on Habsburg side or actual local differences in the (impact of) policies implemented by central authorities.

Table 10, columns (1)-(5), show that the only (marginally) statistically significant Habsburg effect (at the 10% level) is trust in the presidency. However, overall, there is no Habsburg effect on trust in central public services. This is an interesting and natural finding in itself, but it also gives support to there being genuine differences in trust/corruption in local public services and not only a general perception/bias towards higher trust/lower corruption to all state institutions, be they local or central.

## **7.3 Trust in People and Private Entities**

A further piece of evidence that the Habsburg effect is one related to *person-state* interaction at the local level and not to any kind of interaction between individuals or between individuals and private entities is presented in Table 10, columns (6)-(7). Column

(6) shows that there is no Habsburg effect of trust in other people. This is in line with the idea that one might trust or distrust local public services without any differential effect on interactions with other citizens. Similarly, column (7) shows that the same holds true for trust in trade unions, which are one prominent example of a private entity with which many people interact.

#### 7.4 Additional Evidence from a Business Survey (BEEPS)

We can complement our evidence on trust of individuals in local public services by looking at the experience that firms have. Suitable data comes from the Business Environment and Enterprise Performance Survey (BEEPS) which was conducted for 28 countries by the European Bank for Reconstruction and Development and the World Bank in the year 2005. The purpose of this survey was to better understand constraints that hinder the development of businesses. Businesses were asked to answer in a fashion reflecting “only [their] perception and experience of doing business in [their] country.

Similar to the LiTS, also in the BEEPS, we know the location of respondents. From this, we geo-coded municipality data to compute distance from the old Habsburg border. We use this information below to restrict the sample to respondents in municipalities within 200 km of the former Habsburg border in the five-country sample.

The BEEPS asks firms about their business experience. For instance, in column (1) of Table 11, we find that firms on Habsburg side are less likely to have suffered any losses as a result of theft, robbery, vandalism or arson against their firm over the last 12 months. This is a real factual outcome attesting to a safer, more trustworthy business environment. This in turn is likely a consequence of a more “efficient”/trustworthy police.

Similar to the LiTS, firms are asked about their perception of the courts. On Habsburg side, firms are more likely to consider courts as fair and impartial (column (2)) and honest and uncorrupted (column (3)). There is also a positive Habsburg effect (although not statistically significant, see column (4)) with respect to the firms’ confidence that the legal system will uphold their contract and property rights in business disputes. The wording of the latter question (“legal system”) is likely to draw firms to think more of the functioning of the central (legal) system, as opposed to the local courts. To the extent that this is true, again, we would not expect any Habsburg effect. Further evidence on the security of the business environment (and thus possibly on the efficiency/trustworthiness of the local police) can be seen in column (5). Firms on Habsburg side are less likely to (have to) pay for security (e.g., equipment, personnel, or professional security services), but also this effect is statistically insignificant.

Finally, we do not find differences between firms on both sides of the Habsburg border in terms of member of a (business) association or chamber of commerce (column (6)). Again, this shows that the Habsburg effect is not about membership in general, but about person-state interactions.

## 8 Conclusions

The results of this paper show that even 90 years after its demise, the Habsburg Empire lives on in the values and interactions of the people living within its long-gone borders. Comparing individuals living on either side of the former Habsburg border, we find that respondents in a current household survey who live on former Habsburg soil have higher levels of trust in local state institutions such as the police and courts. They are less likely to pay bribes for these public services, demonstrating that the institutional heritage influences not only preferences and unilateral decisions but also bilateral bargaining situations in person-state interactions.

We establish this result on the basis of a border specification that is identified from a geographic discontinuity. 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 comprise both Habsburg and non-Habsburg areas. Using this five-country sample, we can identify the Habsburg effect when comparing communities within a range of 200 km on both sides of the former border of the Habsburg Empire. This approach has the advantage that respondents face the same formal institutions today because they live *within* the same current national borders but differ in their historical exposure to the formal institutions of the Habsburg Empire. We can additionally control for observed variations in education, religion, language, and wealth at the individual level.

Given this setting, we can rule out other channels of historical influence often discussed in the literature. For more than three generations, territories on the two sides of the former Habsburg border have been sharing a common set of formal institutions. By restricting the analysis to territories close to each other around the former border, geographic differences can be ruled out. Additional specification tests confirm that locations on the two sides do not differ significantly in terms of geographic altitude. The micro dataset allows us to control for differences in education at the individual level. The same is true for religion, ruling out another potential cultural channel. As a result, the observed Habsburg legacy can be pinned down to the cultural and social norms of behavior observed in the data. In the case of the Habsburg Empire, history matters for current attitudes and behavior not because formal institutions have survived, but because individual values, beliefs, and norms with regard to the state have survived.



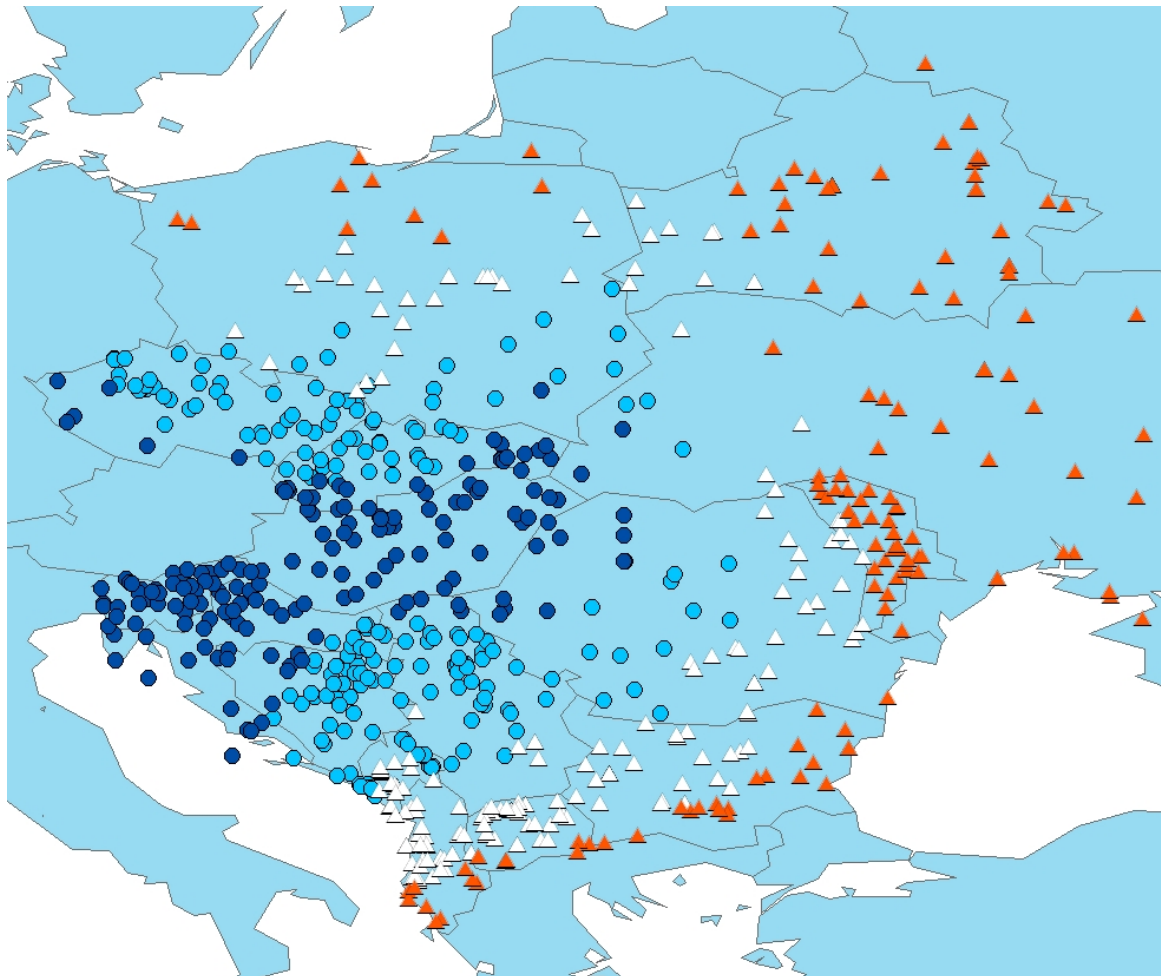
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Figure 1: **Location of Municipalities in the LiTS 2006 Dataset**

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 200 km of the former Habsburg border.

Table 1: **Samples and Habsburg Status**

	Full sample			Border sample		
	not Habsburg (1)	Habsburg (2)	Total (3)	not Habsburg (4)	Habsburg (5)	Total (6)
1 Albania	1,000 <i>100.0</i>	0 <i>0.0</i>	1,000 <i>100.0</i>			
2 Belarus	1,000 <i>100.0</i>	0 <i>0.0</i>	1,000 <i>100.0</i>			
3 Bosnia	0 <i>0.0</i>	1,000 <i>100.0</i>	1,000 <i>100.0</i>			
4 Bulgaria	1,000 <i>100.0</i>	0 <i>0.0</i>	1,000 <i>100.0</i>			
5 Croatia	0 <i>0.0</i>	1,000 <i>100.0</i>	1,000 <i>100.0</i>			
6 Czech Rep.	0 <i>0.0</i>	1,000 <i>100.0</i>	1,000 <i>100.0</i>			
7 FYR Macedonia	1,000 <i>100.0</i>	0 <i>0.0</i>	1,000 <i>100.0</i>			
8 Hungary	0 <i>0.0</i>	1,000 <i>100.0</i>	1,000 <i>100.0</i>			
9 Moldova	1,000 <i>100.0</i>	0 <i>0.0</i>	1,000 <i>100.0</i>			
10 Montenegro	600 <i>60.0</i>	400 <i>40.0</i>	1,000 <i>100.0</i>	600 <i>60.0</i>	400 <i>40.0</i>	1,000 <i>100.0</i>
11 Poland	660 <i>66.0</i>	340 <i>34.0</i>	1,000 <i>100.0</i>	480 <i>60.0</i>	320 <i>40.0</i>	800 <i>100.0</i>
12 Romania	520 <i>52.0</i>	480 <i>48.0</i>	1,000 <i>100.0</i>	500 <i>65.8</i>	260 <i>34.2</i>	760 <i>100.0</i>
13 Russia	1,000 <i>100.0</i>	0 <i>0.0</i>	1,000 <i>100.0</i>			
14 Serbia	100 <i>10.0</i>	900 <i>90.0</i>	1,000 <i>100.0</i>	100 <i>11.1</i>	800 <i>88.9</i>	900 <i>100.0</i>
15 Slovakia	0 <i>0.0</i>	1,001 <i>100.0</i>	1,001 <i>100.0</i>			
16 Slovenia	0 <i>0.0</i>	1,001 <i>100.0</i>	1,001 <i>100.0</i>			
17 Ukraine	880 <i>88.0</i>	120 <i>12.0</i>	1,000 <i>100.0</i>	60 <i>42.9</i>	80 <i>57.1</i>	140 <i>100.0</i>
Total	8,760 <i>51.5</i>	8,242 <i>48.5</i>	17,002 <i>100.0</i>	1,740 <i>48.3</i>	1,860 <i>51.7</i>	3,600 <i>100.0</i>

*Number of observations.* Row shares in italics below. Data source: Life in Transition Survey (LiTS) 2006; see main text for details.

Table 2: Trust and Corruption in Public Services: Habsburg vs. Non-Habsburg

	Trust in police			Trust in courts		
	Habsburg	not Habsburg	Total	Habsburg	not Habsburg	Total
Complete distrust	1,396 <i>17.1</i>	2,220 <i>25.7</i>	3,616 <i>21.5</i>	2,139 <i>26.2</i>	2,792 <i>32.3</i>	4,931 <i>29.3</i>
Some distrust	1203 <i>14.7</i>	1,379 <i>15.9</i>	2,582 <i>15.4</i>	1610 <i>19.7</i>	1,531 <i>17.7</i>	3,141 <i>18.7</i>
Neither trust nor distrust	2014 <i>24.7</i>	1,666 <i>19.3</i>	3,680 <i>21.9</i>	1846 <i>22.6</i>	1,626 <i>18.8</i>	3,472 <i>20.7</i>
Some trust	2439 <i>29.9</i>	2,242 <i>25.9</i>	4,681 <i>27.8</i>	1709 <i>20.9</i>	1,678 <i>19.4</i>	3,387 <i>20.2</i>
Complete trust	821 <i>10.1</i>	824 <i>9.5</i>	1,645 <i>9.8</i>	371 <i>4.5</i>	502 <i>5.8</i>	873 <i>5.2</i>
Difficult to say	290 <i>3.6</i>	318 <i>3.7</i>	608 <i>3.6</i>	490 <i>6.0</i>	519 <i>6.0</i>	1009 <i>6.0</i>
Total	8,163 <i>100.0</i>	8,649 <i>100.0</i>	16,812 <i>100.0</i>	8,165 <i>100.0</i>	8,648 <i>100.0</i>	16,813 <i>100.0</i>

	Bribes to road police			Bribes to other police			Bribes to courts		
	Habsburg	not Habsburg	Total	Habsburg	not Habsburg	Total	Habsburg	not Habsburg	Total
Never	5,627 <i>68.9</i>	4,917 <i>56.8</i>	10,544 <i>62.7</i>	6,427 <i>78.8</i>	5,650 <i>65.4</i>	12,077 <i>71.9</i>	6,327 <i>77.7</i>	5,719 <i>66.2</i>	12,046 <i>71.8</i>
Seldom	913 <i>11.2</i>	1,082 <i>12.5</i>	1,995 <i>11.9</i>	790 <i>9.7</i>	1,194 <i>13.8</i>	1,984 <i>11.8</i>	732 <i>9.0</i>	985 <i>11.4</i>	1,717 <i>10.2</i>
Sometimes	1010 <i>12.4</i>	1,330 <i>15.4</i>	2,340 <i>13.9</i>	635 <i>7.8</i>	1,038 <i>12.0</i>	1,673 <i>10.0</i>	641 <i>7.9</i>	1,036 <i>12.0</i>	1,677 <i>10.0</i>
Usually	453 <i>5.6</i>	822 <i>9.5</i>	1,275 <i>7.6</i>	225 <i>2.8</i>	484 <i>5.6</i>	709 <i>4.2</i>	308 <i>3.8</i>	524 <i>6.1</i>	832 <i>5.0</i>
Always	165 <i>2.0</i>	502 <i>5.8</i>	667 <i>4.0</i>	82 <i>1.0</i>	270 <i>3.1</i>	352 <i>2.1</i>	136 <i>1.7</i>	376 <i>4.4</i>	512 <i>3.1</i>
Total	8,168 <i>100.0</i>	8,653 <i>100.0</i>	16,821 <i>100.0</i>	8,159 <i>100.0</i>	8,636 <i>100.0</i>	16,795 <i>100.0</i>	8,144 <i>100.0</i>	8,640 <i>100.0</i>	16,784 <i>100.0</i>

*Trust:* Answer to the question: "To what extent do you trust the following institutions?" *Corruption:* 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?" Number of observations; share in italics below.

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

Table 3: DESCRIPTIVE STATISTICS

	Full 17-country sample (former Habsburg and neighbors)				Border sample (+/- 200km) in 5 countries that are partly Habsburg					
	Mean (1)	StdDev (2)	Min (3)	Max (4)	Both sides		Habsburg side		non-Habsburg side	
					Mean (5)	StdDev (6)	Mean (7)	StdDev (8)	Mean (9)	StdDev (10)
Part of Habsburg empire	.49	.50	.00	1.00	.53	.50	1.00	.00	.00	.00
Duration of affiliation with Habsburg	124.96	176.64	.00	635.00	50.20	80.74	95.34	89.87	.00	.00
Distance to Vienna (in 100 km)	727.55	646.77	51.24	8074.17	609.24	152.40	549.31	125.54	675.90	151.98
<b>Individual-level variables</b>										
Age of respondent	47.51	17.74	17.00	92.00	46.46	17.85	47.57	17.41	45.24	18.26
Male respondent	.43	.50	.00	1.00	.45	.50	.44	.50	.45	.50
Worked for income during last 12 months	.49	.50	.00	1.00	.45	.50	.45	.50	.44	.50
Native language	.91	.28	.00	1.00	.93	.26	.91	.29	.95	.22
Ethnic minority	.09	.28	.00	1.00	.09	.28	.13	.33	.04	.21
<i>Education (omitted category: no degree)</i>										
Compulsory schooling education	.20	.40	.00	1.00	.19	.39	.19	.39	.18	.39
Secondary education	.21	.41	.00	1.00	.20	.40	.17	.38	.24	.42
Professional, vocational school or training	.35	.48	.00	1.00	.38	.49	.40	.49	.37	.48
Higher professional degree (univ., college)	.18	.38	.00	1.00	.16	.37	.17	.37	.16	.36
Post graduate degree	.01	.10	.00	1.00	.01	.10	.01	.11	.01	.10
<i>Religion (omitted category: atheist)</i>										
Buddhist	.001	.03	.00	1.00	.0008	.03	.001	.03	.0006	.02
Jewish	.002	.04	.00	1.00	.002	.04	.002	.04	.002	.04
Christian	.77	.42	.00	1.00	.91	.29	.89	.32	.93	.26
Muslim	.11	.31	.00	1.00	.05	.23	.08	.27	.03	.16
Other	.01	.12	.00	1.00	.006	.08	.007	.08	.005	.07
<b>Household-level variables</b>										
HH has a car	.48	.50	.00	1.00	.51	.50	.52	.50	.51	.50
HH has a secondary residence	.13	.34	.00	1.00	.16	.37	.15	.36	.17	.37
HH has a bank account	.44	.50	.00	1.00	.43	.50	.44	.50	.43	.50
HH has a credit/debit card	.37	.48	.00	1.00	.34	.48	.34	.47	.35	.48
HH has a mobile phone	.72	.45	.00	1.00	.75	.43	.74	.44	.76	.43
HH has a computer	.35	.48	.00	1.00	.39	.49	.37	.48	.41	.49
HH has a access to internet at home	.22	.41	.00	1.00	.25	.43	.24	.43	.27	.44
HH size (equivalent scale)	1.87	.68	1.00	6.50	1.94	.69	1.98	.71	1.90	.67
HH number of children under 14	.36	.74	.00	7.00	.39	.78	.42	.82	.35	.74

Border sample = respondents living within 200km of respondents on the other side of the former Habsburg border in those five countries that are partly Habsburg.

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



Table 4: THE EFFECT OF THE HABSBURG EMPIRE ON TRUST IN POLICE

	Full 17-country sample (former Habsburg and neighbors)			Border sample (+/- 200km) in 5 countries that are partly Habsburg		+/- 100km
	(1)	(2)	(3)	(4)	(5)	(7)
Part of Habsburg empire	.315 (.063)***	.316 (.064)***	.229 (.066)***	.296 (.118)**	.245 (.111)**	.204 (.110)*
Age of respondent		.006 (.001)***	.007 (.001)***		.009 (.002)***	.007 (.003)**
Male respondent		.003 (.031)	.012 (.031)		-.036 (.066)	-.119 (.090)
Native language		.216 (.091)**	.204 (.088)**		.004 (.152)	-.004 (.196)
Ethnic minority		-.029 (.091)	-.036 (.088)		-.325 (.124)***	-.307 (.162)*
Controls for religious affiliation (6 categories)		yes	yes	yes	yes	yes
Worked for income during last 12 months			.047 (.039)			.069 (.094)
Controls for HH property (7 variables)			yes	yes	yes	yes
Controls for education level (6 categories)			yes	yes	yes	yes
Urban area			-.094 (.069)			-.092 (.147)
Metropolitan area			-.231 (.087)***			-.259 (.236)
HH size (equivalent scale)			.006 (.031)		.106 (.063)*	.160 (.076)**
HH number of children under 14			.024 (.024)		-.026 (.044)	.030 (.056)
Full set of country dummies				yes	yes	yes
Obs.	16232	16232	16232	3409	3409	1909
Pseudo-R2	.003	.005	.008	.009	.015	.018

Border sample = respondents living within 200km of respondents on the other side of the former Habsburg border in those five countries that are partly Habsburg.  
 Dependent variable is answer to the question "To what extent do you trust the following institutions? The police." 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.  
 Coefficients and standard errors from ordered logit (ologit) estimation.  
 Standard errors (clustered by primary sampling units) in parentheses: \* significance at ten, \*\* five, \*\*\* one percent.  
 Data source: Life in Transition Survey (LiTS) 2006; see main text for details.

Table 5: EFFECT OF THE HABSBERG EMPIRE ON ADDITIONAL ASPECTS OF TRUST AND CORRUPTION

	Trust in courts		Bribes to road police		Bribes to other police		Bribes to courts	
	Full sample	Border sample	Full sample	Border sample	Full sample	Border sample	Full sample	Border sample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Part of Habsburg empire	.086 (.070)	.290 (.131)**	-.539 (.092)**	-.314 (.181)*	-.611 (.102)**	-.310 (.193)	-.507 (.102)**	-.387 (.211)*
Used service in last 12 months			1.151 (.065)**	1.044 (.141)**	1.096 (.095)**	1.167 (.206)**	1.070 (.087)**	.950 (.192)**
Age of respondent	-.003 (.001)**	-.002 (.003)	-.009 (.002)**	-.015 (.003)**	-.007 (.002)**	-.012 (.004)**	-.004 (.002)**	-.006 (.004)
Male respondent	-.061 (.032)*	.007 (.070)	.061 (.038)	.237 (.081)**	.024 (.040)	.185 (.091)**	.010 (.041)	.004 (.099)
Native language	.203 (.095)**	-.191 (.175)	-.239 (.131)*	.154 (.275)	-.221 (.141)	-.075 (.343)	-.191 (.134)	.054 (.315)
Ethnic minority	-.021 (.100)	.338 (.138)**	-.310 (.104)**	-.182 (.167)	-.306 (.111)**	-.152 (.184)	-.280 (.110)**	-.152 (.204)
Controls for religious affiliation (6 categories)	yes	yes	yes	yes	yes	yes	yes	yes
Worked for income during last 12 months	.041 (.039)	-.023 (.076)	.132 (.046)**	.224 (.095)**	.103 (.050)**	.199 (.121)*	.067 (.050)	.180 (.110)
Controls for HH property (7 variables)	yes	yes	yes	yes	yes	yes	yes	yes
Controls for education level (6 categories)	yes	yes	yes	yes	yes	yes	yes	yes
Urban area	-.139 (.073)*	-.095 (.127)	.026 (.100)	.070 (.188)	-.080 (.111)	-.068 (.215)	.027 (.113)	-.035 (.231)
Metropolitan area	-.273 (.090)**	-.098 (.158)	.226 (.130)*	.068 (.239)	.096 (.142)	-.049 (.263)	.131 (.145)	.018 (.278)
HH size (equivalent scale)	-.081 (.032)**	.074 (.068)	-.003 (.038)	.145 (.072)**	.074 (.042)*	.173 (.092)*	.064 (.044)	.096 (.084)
HH number of children under 14	.026 (.024)	.014 (.047)	-.038 (.025)	-.041 (.047)	-.057 (.029)**	-.078 (.070)	-.035 (.029)	-.067 (.066)
Full set of country dummies	yes	yes	yes	yes	yes	yes	yes	yes
Obs.	15830	3359	16821	3574	16804	3571	16794	3572
Pseudo-R2	.005	.023	.047	.062	.032	.058	.025	.041

Full sample = 17-country sample (former Habsburg and neighbors). Border sample = respondents living within 200km of respondents on the other side of the former Habsburg border in those five countries that are partly Habsburg.  
 Dependent variable in columns (1) and (2) is answer to the question "To what extent do you trust the following institutions? The courts." 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 columns (3) to (8) 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?" Columns (3) and (4); Interact with the road police. Columns (5) and (6); Interact with the police on matters other than traffic and other than requesting documents. Columns (7) and (8); Interact with the courts." Permissible answers are: 1=Never; 2=Seldom; 3=Sometimes; 4=Usually; 5=Always.  
 Coefficients and standard errors from ordered logit (ologit) estimation.  
 Standard errors (clustered by primary sampling units) in parentheses: \* significance at ten, \*\* five, \*\*\* one percent.  
 Data source: Life in Transition Survey (LITS) 2006; see main text for details.

Table 6: PSEUDO BORDERS: MOVING THE BORDER INWARDS AND OUTWARDS

	Trust in police (1)	Trust in courts (2)	Bribes to road police (3)	Bribes to other police (4)	Bribes to courts (5)
Moving border 100km inwards	-.142 (.141)	-.120 (.175)	.013 (.236)	.321 (.257)	.447 (.284)
Moving border 100km outwards	-.182 (.227)	-.122 (.237)	.312 (.392)	.047 (.410)	.433 (.446)

Sample is border sample = respondents living within 200km of respondents on the other side of the former Habsburg border in those five countries that are partly Habsburg.

In the first row, estimation is restricted to Habsburg municipalities (within the 200km band of the true Habsburg border) and treatment is defined as being “to the left” of a pseudo border that is moved 100km inwards relative to the true Habsburg border. In the second row, estimation is restricted to non-Habsburg municipalities (within the 200km band of the true Habsburg border) and treatment is defined as being “to the left” of a pseudo border that is moved 100km outwards relative to the true Habsburg border.

All regressions are based on the full specification (column 6 of Table 4).

Coefficients and standard errors from ordered logit (ologit) estimation.

Standard errors (clustered by primary sampling units) in parentheses: \* significance at ten, \*\* five, \*\*\* one percent.

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

Table 7: GEOGRAPHIC AND PRE-EXISTING DIFFERENCES BETWEEN HABSBURG AND NON-HABSBURG

	Geography		Indicators of pre-Habsburg development	
	Altitude of LiTS municipality in meters (1)	City size in 1400 in 1,000s (2)	Trade route in 1450 (dummy) (3)	Diocesan city in 1450 (dummy) (4)
Part of Habsburg empire	40.848 (40.425)	-.726 (.897)	-.065 (.081)	-.047 (.069)
Obs.	159	123	123	123
$R^2$	0.0065	.005	.005	.004

Sample is border sample = respondents living within 200km of respondents on the other side of the former Habsburg border in those five countries that are partly Habsburg.

Coefficients and standard errors from ordinary least squares estimation.

In column (1), the unit of observation is a LiTS-town. In columns (2)-(4), the unit of observation is a town in the Bairoch (1988) data.

Standard errors in parentheses: \* significance at ten, \*\* five, \*\*\* one percent.

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

Table 8: DURATION OF HABSBURG AFFILIATION AND RESTRICTION TO OTTOMAN COMPARISON

	Trust in police (1)	Trust in courts (2)	Bribes to road police (3)	Bribes to other police (4)	Bribes to courts (5)
<b>Panel A: Controlling for duration of Habsburg affiliation</b>					
Part of Habsburg empire	.205 (.110)*	.297 (.129)**	-.313 (.181)*	-.316 (.193)	-.387 (.211)*
Duration of affiliation with Habsburg (in 100 years)	-.022 (.065)	-.118 (.094)	-.014 (.120)	-.209 (.142)	-.005 (.146)
Obs.	3409	3359	3574	3571	3572
Pseudo-R2	.018	.024	.062	.059	.041
<b>Panel B: Habsburg comparison with Ottoman Empire</b>					
Part of Habsburg empire	.264 (.136)*	.367 (.169)**	-.433 (.217)**	-.324 (.217)	-.541 (.221)**
Obs.	2941	2906	3094	3091	3092
Pseudo-R2	.019	.026	.058	.055	.039

Sample is border sample = respondents living within 200km of respondents on the other side of the former Habsburg border in those five countries that are partly Habsburg.

Both panels A and B are based on the full specification (column 6 of Table 4). Panel A adds duration of Habsburg affiliation (duration is centered around 100 years) to that specification. Panel B limits the control group to non-Habsburg municipalities that were part of the Ottoman Empire. Coefficients and standard errors from ordered logit (ologit) estimation.

Standard errors (clustered by primary sampling units) in parentheses: \* significance at ten, \*\* five, \*\*\* one percent.

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

Table 9: SOCIAL CAPITAL: MEMBERSHIP IN CIVIC AND POLITICAL ORGANIZATIONS

	Membership in political parties			Membership in civic organizations				
	Full sample	Border sample	Full sample	Border sample	Full sample	Border sample		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Part of Habsburg empire	.013 (.007)*	.014 (.007)*	.034 (.014)**	.022 (.013)	.052 (.006)***	.035 (.005)***	.010 (.009)	.010 (.008)
Age of respondent	-.0002 (.0001)	.0003 (.0001)**	.0004 (.0003)	.0007 (.0003)**	-.0001 (.0001)	.0005 (.0001)***	-.0004 (.0002)*	-.0002 (.0002)
Male respondent	.041 (.005)***	.034 (.004)***	.041 (.009)***	.031 (.008)***	.024 (.004)***	.020 (.003)***	.014 (.007)**	.012 (.007)*
Native language	-.029 (.014)**	-.028 (.014)**	.004 (.016)	-.0006 (.016)	.014 (.007)*	.011 (.007)*	.015 (.009)	.015 (.008)*
Ethnic minority	-.003 (.009)	.0002 (.009)	.002 (.016)	.001 (.015)	-.004 (.007)	.002 (.007)	.025 (.016)	.024 (.015)
Controls for religious affiliation (6 categories)	yes	yes	yes	yes	yes	yes	yes	yes
Worked for income during last 12 months		-.0002 (.005)		.034 (.010)***		.002 (.004)		.006 (.007)
Controls for HH property (7 variables)		yes		yes		yes		yes
Controls for education level (6 categories)		yes		yes		yes		yes
Urban area		-.009 (.007)		-.003 (.012)		-.0003 (.006)		.003 (.009)
Metropolitan area		-.018 (.007)***		-.054 (.010)***		-.015 (.007)**		-.009 (.011)
HH size (equivalent scale)		.015 (.003)***		.007 (.007)		-.004 (.003)		.008 (.005)
HH number of children under 14		.002 (.003)		-.004 (.005)		.001 (.003)		-.002 (.004)
Full set of country dummies			yes	yes			yes	yes
Obs.	16827	16827	3564	3564	16806	16806	3573	3573
Pseudo-R2	.030	.057	.132	.161	.041	.077	.044	.080

Full sample = 17-country sample (former Habsburg and neighbors). Border sample = respondents living within 200km of respondents on the other side of the former Habsburg border in those five countries that are partly Habsburg.  
 Dependent variable in columns (1)-(4) is answer to the question "Are you a member of a political party?" Dependent variable in columns (5)-(8) is answer to the question "Are you a member of (other) civic/voluntary organizations?".  
 Marginal effects and standard errors from probit estimation.  
 Standard errors (clustered by primary sampling units) in parentheses: \* significance at ten, \*\* five, \*\*\* one percent.  
 Data source: Life in Transition Survey (LiTS) 2006; see main text for details.

Table 10: TRUST IN CENTRAL PUBLIC SERVICES AND INTERPERSONAL TRUST

	Trust in central public institutions:				Trust in		
	presidency (1)	government (2)	parliament (3)	polit. parties (4)	armed forces (5)	other people (6)	trade unions (7)
Part of Habsburg empire	.224 (.120)*	.195 (.132)	.211 (.134)	.118 (.118)	.126 (.125)	-.007 (.142)	.052 (.141)
Age of respondent	.008 (.003)***	.008 (.003)***	.005 (.003)**	.004 (.003)	.006 (.003)**	-.002 (.003)	-.003 (.003)
Male respondent	-.094 (.074)	-.091 (.076)	.029 (.074)	.014 (.074)	.049 (.068)	-.040 (.070)	-.071 (.072)
Native language	-.172 (.221)	-.198 (.210)	-.239 (.207)	-.172 (.187)	-.022 (.211)	.185 (.138)	-.252 (.194)
Ethnic minority	-.275 (.134)**	-.272 (.161)*	-.178 (.169)	-.147 (.175)	-.250 (.137)*	-.212 (.134)	-.111 (.139)
Controls for religious affiliation (6 categories)	yes	yes	yes	yes	yes	yes	yes
Worked for income during last 12 months	-.024 (.072)	-.016 (.079)	-.042 (.081)	-.052 (.084)	-.052 (.071)	-.041 (.078)	-.088 (.085)
Controls for HH property (7 variables)	yes	yes	yes	yes	yes	yes	yes
Controls for education level (6 categories)	yes	yes	yes	yes	yes	yes	yes
Urban area	-.037 (.122)	-.169 (.129)	-.179 (.128)	-.231 (.112)**	.062 (.131)	-.029 (.133)	-.254 (.134)*
Metropolitan area	-.095 (.151)	-.180 (.163)	-.101 (.167)	-.076 (.157)	-.250 (.159)	.082 (.158)	-.152 (.144)
HH size (equivalent scale)	.064 (.067)	.00004 (.067)	.024 (.069)	.041 (.072)	.051 (.067)	-.055 (.064)	.017 (.069)
HH number of children under 14	.059 (.051)	.095 (.052)*	.091 (.050)*	.028 (.046)	-.088 (.046)*	.019 (.045)	-.025 (.046)
Full set of country dummies	yes	yes	yes	yes	yes	yes	yes
Obs.	3380	3386	3396	3352	3149	3388	3137
Pseudo-R2	.028	.031	.034	.019	.024	.008	.020

Sample is border sample = respondents living within 200km of respondents on the other side of the former Habsburg border in those five countries that are partly Habsburg.

Dependent variable is answer to the question "To what extent do you trust the following institutions?" 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. Coefficients and standard errors from ordered logit (ologit) estimation. Standard errors (clustered by primary sampling units) in parentheses: \* significance at ten, \*\* five, \*\*\* one percent. Data source: Life in Transition Survey (LiTS) 2006; see main text for details.

Table 11: RESULTS FROM A BUSINESS SURVEY

	Losses from theft		Description of court system in resolving business disputes:			Pay for security of firm (dummy)	Firm is member of business association
	(1)	(2)	(3)	(4)	(5)		
Part of Habsburg empire	-.113 (.068)*	.279 (.110)**	.205 (.120)*	.106 (.111)	-.149 (.139)	-.083 (.082)	
Year when firm began operations in country	.002 (.002)	-.004 (.002)*	-.003 (.003)	-.001 (.003)	.005 (.004)	-.006 (.002)***	
Sector dummies	yes	yes	yes	yes	yes	yes	
Firm size medium (50-249 employees)	.300 (.114)***	.550 (.119)***	.457 (.164)***	.451 (.116)***	-.210 (.139)	.565 (.096)***	
Firm size large (250-9999 employees)	.528 (.138)***	.393 (.174)**	.753 (.188)***	.723 (.192)***	-.091 (.241)	.824 (.128)***	
Percentage of firm owned by foreigners	-.001 (.001)	.003 (.002)**	.003 (.002)	.003 (.002)*	-.003 (.002)	.003 (.002)**	
Percentage of firm owned by government	.0006 (.002)	.004 (.002)**	.003 (.002)	.004 (.002)	-.004 (.003)	.002 (.002)	
Country dummies	yes	yes	yes	yes	yes	yes	
Obs.	1935	1790	1764	1782	1914	1935	
Pseudo-R2	.038	.020	.018	.014	.041	.124	

Border sample = firms located within 200km of firms on the other side of the former Habsburg border in those five countries that are partly Habsburg.

Table displays marginal effects and standard errors from probit (binary variables) and coefficients and standard errors from ordered logit (categorical variables) estimation, respectively.

In column (1), dependent variable is binary variable resulting from answer to question "Have you had any losses as a result of theft, robbery, vandalism or arson against your firm over the last 12 months?"

In columns (2) and (3), dependent variable is categorical variable resulting from answer to question "How often do you associate the following descriptions with the court system in resolving business disputes?" with permissible answers 1=Never; 2=Seldom; 3=Sometimes; 4=Frequently; 5=Usually; 6=Always.

In column (4), dependent variable is categorical variable resulting from answer to question "To what degree do you agree with this statement? I am confident that the legal system will uphold my contract and property rights in business disputes." with permissible answers: 1=Strongly disagree; 2=Disagree in most cases; 3=Tend to disagree; 4=Tend to agree; 5=Agree in most cases; 6=Strongly agree.

In column (5), dependent variable is binary variable resulting from answer to question "Do you pay for security (e.g., equipment, personnel, or professional security services?)"

In column (6), dependent variable is binary variable resulting from answer to question "Is your firm a member of a business association or chamber of commerce?"

Standard errors in parentheses: \* significance at ten, \*\* five, \*\*\* one percent.

Data source: Business Environment and Enterprise Performance Survey (BEEPS) 2005; see main text for details.