FZID Discussion Papers

WHY IT MATTERS WHAT PEOPLE THINK - BELIEFS, LEGAL ORIGINS AND THE DEEP ROOTS OF TRUST

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Discussion Paper 52-2012

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July 15, 2012

Abstract

This paper analyses the connection between legal origins and generalized trust. Based on recent results of institutions and trust research it argues that legal origins and trust are connected via the beliefs of agents. Next, it develops hypotheses about a complex and self-reinforcing causal relation between both. It then shows empirically that indeed, legal origins and contemporary trust are robustly connected with each other. In a next step, it investigates the deep historical roots of trust to construct proxies for historical trust levels in 1500 AD. By making use of the historical trust scores and information about the exogenous or endogenous introduction of legal origins in certain countries it assess some of the claims about causality made before. Here, it found confirming evidence for the propositions of Aghion et al. (2010), namely that (i) countries for which legal origins are endogenous did develop other legal traditions depending on their ex-ante (historical) trust values and (ii) that the effects of an exogenous introduction of legal origins vary depending on ex-ante trust levels.

Keywords: Trust, Legal Origins, Colonization, Institutions, Causality, Deep Rooted Factors of Development
JEL Classification: DO2, K40, N10, O10, Z10

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1. Introduction

"What concerns me is not the way things are, but rather the way people think things are." What was already know by the ancient Grecian philosopher Epictetus, is quite new to economists: That it matters for economic outcomes what people believe, think and expect. It is only in the last two decades, that this insight has led to the emergence of many fruitful areas of research like cultural economics. These new research areas among other things have brought trust, —i.e. the beliefs of people about the trustworthiness and honesty of others— in the focus of economic research efforts.[1]

However, until now economic research was concentrated on the importance of trust for growth and economic development.[2] Starting with Helliwell (1996) and Knack and Keefer (1997) a series of influential empirical papers (e.g. La Porta et al. 1997; Whiteley 2000; Zack and Knack 2001; Dearmon and Grier 2009; Roth, 2009; Algan and Cahuc 2010; Dincer and Uslaner 2010 and Özcan and Bjørnskov 2011) found clear evidence that trust has a significant positive influence on various measures of economic performance. Only Roth (2009) comes to the conclusion that an increase in trust is —at least in developed countries with already high trust levels— negatively associated with growth. However, still the most of these studies fail to establish a clear channel through which trust transmits to economic growth. The same holds true for the question of the causal relationship between trust and formal institutions. Studies dealt with this issue produced pretty much inconsistent findings. [3]

Nevertheless, some studies coming from a more theoretical perspective highlight the close relationship between culture, trust, social norms and formal institutions (e.g. Aghion et al. 2010, Guiso et al. 2008a or Tabellini 2008b). For instance, the study of Aghion et al. (2010) suggests that high trust leads to lower regulation and less corruption and therefore to better development. Their findings also imply a complex co-evolution between trust and legal institutions that eventually could explain the contradicting findings of the previous literature. As such, the results of these papers are the starting point for our considerations.

The aim of this paper is to assess both possible channels through which trust (i.e.

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[1]This definition of trust goes back to Luhmann (2000). In more economic terms, Knack and Keefer (1997) describe trust as the expectations of agents about the percentage of people who will cooperate in a one-shot prisoners dilemma. The idea of trust and its measurement will be discussed in more detail in section three of the paper.

[2]The seminal works of Coleman (1988) and Putnam (1993) can be seen as starting point for this strand of research.

[3]Papers dealing with this issue and coming to different results are e.g. Ahlerup et al. (2009), Bergh and Bjørnskov (2011), Bjørnskov (2009a), In Bjørnskov (2010), Bjørnskov and Méon (2010), Heinemann and Tanz (2008) , Labonne and Chase (2010) and Zak and Knack (2001).

informal institutions) and formal institutions (measured through legal origins) could be connected and the causality between them. To do so, it uses the results of existing empirical and experimental trust research to develop hypotheses about the complex causality between institutions and trust. Following the reasoning of Aghion et al. (201) a complex co-evolution between institutional environment and trust, where beliefs (trust) form legal institutions and legal institutions form beliefs (trust) is postulated.

In the empirical part we will use the different legal traditions and various institutional and regulatory environments typically connected with them as aggregated measure of the institutional environment to test the theoretical propositions. Hence, this study connects the economic literature on legal origins (e.g. Botero et al. 2004; Glaeser and Shleifer 2002; La Porta et al. 2004 and La Porta et al. 2008) with trust research.

Furthermore, this research is the first attempt to provide a closer analysis of the connection between the different legal systems and the level of trust in a society. Furthermore, it shows that the emergence of different legal traditions and their spread around the world through conquest, colonization or voluntarily adoption can be used to examine which of the various hypotheses about the causal relationship between trust and institutions is correct.

For this purpose, proxies for the historical trust level in 1500 AD are constructed. These should enable us to investigate whether societies choose other legal systems conditional on their ex-ante level of generalized trust (exogeneity of trust). Secondly, they can help us to identify a possible causal impact of the exogenous introduction of different legal traditions (through colonization) on trust (endogeneity of trust)via a Difference in Difference (DiD) approach. Hence,the paper also offers a first empirical test of the propositions of Aghion et al. (2010) and related models. The empirical estimations found confirming evidence for all hypothesis. They show that there is a robust relation between trust and legal origins, that societies with different level of trust develop different institutions and that the effect of exogenous introduction of legal origins through colonization has different effects conditional on high or low ex-ante trust.

The rest of the paper is organized as follows: First of all, we discuss theoretical arguments and derive hypotheses about the connection and causal relationship between trust and institutions.In the next step, the data and the contemporary and historical trust measures used in the remainder of the paper are introduced and discussed. After that, we at first show empirically that there is a robust relation between trust and legal origins. Then we elaborately assess the causality question. Finally, in section five we conclude.

2. Theory and Hypotheses

2.1. The Connection between Trust and Legal Origins

In their survey of the legal origin literature La Porta et al. (2008, p. 286) define legal origins as "a style of social control of economic life...". And concerning the two main legal traditions, common and civil law they state "...common law stands for the strategy of social control that seeks to support private market outcomes, whereas civil law seeks to replace such outcomes with state-desired allocations." (La Porta et al., p. 286). In their view the different legal origins reflect different perceptions about law and its function. They represent some general ideas that were realized in specific rules, institutions and beliefs of the agents acting in the respective legal environment (La Porta et al. 2008, p. 286). Another widely cited definition stems from Zweigert and Kötz (1998, p.72). They define legal traditions as "...a religious or political conception how economic life or social life should be organized.". An alternative way to differentiate between the legal traditions is developed by Djankov et al. (2003). They highlight that a legal system usually has to deal with two different kinds of problems. On the one hand the problem of disorder and market failure and on the other hand the problem of dictatorship and abuse. They also reckon that there is probably a trade-off between both.

As mentioned, the literature regularly identifies two main legal traditions. The common law tradition, developed in England after the Glorious Revolution and rooted in the Magna Carta from the early 13th century and Civil law tradition finally developed after the French Revolution. Civil law is divided into various sub-traditions and hybrid forms – the French, German and Scandinavian legal tradition (La Porta et al. 2008, p. 288). Klerman et al. (2011, p. 7) additionally identify an Islamic legal tradition rooted in the shari'ah.

But where is the link between these "styles of social control" or these different ideas of freedom and the role of law to generalized trust? Expressed differently, where is the link between informal institutions (like trust, culture and social norms) and the design of formal institutions? The link can be found we propose in the remark of La Porta et al. (2008, p. 286) that these general and abstract ideas are integrated not only in the existing institutional environment but also in the beliefs of people. In other words: The different legal systems reflect deep-rooted differences in the way people are used to interact and deal with each other. These differences in turn show up in concrete and particular legal rules, procedures and institutional arrangements and are imprinted in the institutional environment, convictions and ideologies that constitute the legal systems. The hypothesis is that these different ways of dealing with others and these

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different ideas about the organization of social life are to some extend determined by the level of generalized trust that was present in these societies in the period before they develop their legal traditions. Because trust describes the self-reinforcing expectations about others trustworthiness, civicness and honesty it has to be related to the kind of institutions and rules a society develops or —-to state it economically— it is related to what kind of institutions and rules are efficient. The logic is exactly the same as in the model of Aghion et al. (2010). Their, if people expect to live in a honest and trustworthy society they expect low levels of corruption and regulation. In such a society the last is simply not necessary and people do not regulate entry. Their beliefs are confirmed and so their political choices also lead to honesty, trustworthiness and less regulation. This results in high levels of entrepreneurial activity what in turn raises social welfare. But when people expect to live in a bad and untrustworthy environment they do not become trustworthy and reliable people. This is because in such a society there is no incentive to become trustworthy as the expected pay-offs of becoming a civic entrepreneur are low since there is e.g. high regulation of entry. This leads to a situation where only the most productive and the most corrupt individuals can become entrepreneurs. But then the beliefs are again justified and their political choices lead to even more regulation, corruption and disorder and to even lower levels of economic activity. Furthermore, parents will start to educate their children to uncivic and corrupt persons and in the end a high number of corrupt and not trusting people prevail. So, there are two equilibria one with high trust and low regulation and one with low trust and high regulation (Aghion et al. 2010, p. 1016).

However, this story about the relation of trust and legal traditions is compatible with other models developed in the institutional literature. For example Tabellini (2008a, pp. 909) or that of Guiso et al. (2008a) who develop a model of how priors about the trustworthiness of others (generalized trust) are transmitted from generation to generation. Depending on the initial distribution of trustworthy and untrustworthy people parents will impart other beliefs about the trustworthiness of others to their children. The children will act complementary and furthermore will sustain these beliefs by teaching it also to their offspring. The society will end up with a low trust level, low cooperation and investment or with high trust, many investments and a large extent of cooperation. The interplay between the decisions of parents and the external environment/ values generates a self-reinforcing process resulting in different and stable equilibria. [4]

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[4]Furthermore there are some relations of our argument to the work of Alesina and Angeletos (2005a, 2005b). In Alesina and Angeletos (2005a) it is shown that a bigger government increases corruption what in turn increases the demand for regulation and therefore again the size of government. In an-

Moreover, there are some connections to Carlin et al. (2010) who show that trust could act as a substitute or a complement for government regulation depending on the value of social capital and to Piketty (1995) who probably was the first in noticing that different beliefs of people based on different information, experience and economic situations can influence policy and institutions.

Finally, we can state the following general hypothesis about the relation between trust and legal origins/ institutions:

Hypothesis 1. *There is a significant relationship between institutional features connected with legal origins (regulation, characteristics of the judicial system etc.) and the level of trust in a society. The relation between different legal traditions and trust is expected to be different.*

2.2. Trust and Institutions – The Causality Issue

The empirical and experimental trust research up till now has undertaken various efforts to identify the causality between formal institutions and generalized trust. As already discussed, this literature did not yield clear conclusions until now.

We develop a non-formal model proposing a complex causality – or co-evolution between trust and institutions during different stages of development. In this model trust is sometimes endogenous and sometimes exogenous and sometimes there is a co-evolutionary and self-reinforcing interaction between both. As a consequence this model can integrate all different findings brought forward in the literature culminating the puzzling evidence in a coherent framework. To do so we base our model on the theoretical and empirical insights of Aghion et al. (2010) and the other models on the interaction between institutions, beliefs and trust mentioned in the before. We supplement them by findings of experimental and neuroeconomic trust research.

Sutter and Kocher (2006) and Bellemare and Kröger (2007, p. 200) for example provide an explanation for the findings of Labonne and Chase (2010). They explain the inverted U-shaped relation between trust and age which they found in their experiments with the different number of social interactions people are involved during their lifetime. Because middle aged people are engaged in more social interactions than young and old people their trust (or pro-social behaviour in general) is higher.

Secondly, Bohnet and Zeckhauser (2006) and Eckel and Wilson (2004) conclude from their experiments that trust is different from simple risky decisions for example on finan-

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other paper (Alesina and Angeletos 2005b) the authors illustrate that different beliefs about fairness, inequality and solidarity in a society determine the kind of redistributive policy that is chosen.

cial markets and that it is a "conditional judgment" based on information or inference about the trustworthiness of others. In other words: people try to put oneself in someone's position. [5] In other words there is not conventional risk when people have to trust but some kind of "social risk" or "betrayal risk" that people try to reduce when evaluating the trustworthiness of their counterparts.

Moreover, the neuroeconomic study of McCabe et al. (2001) show that when people trust or cooperate in a game then the brain activity differs depending on whether they play against a human or a computer. Other studies (Fehr et al. 2005; Kosfeld et al. 2005) come to the result that one could lower betrayal aversion (as a part of the preference component of trust) in trust games if one infuses people a dose of the neuropeptide oxytocin.[6]

Taking all this evidence, all this empirical and theoretical arguments presented here and discussed in the literature into account one can postulate the following story about the emergence and evolution of trust and its co-evolution with the institutional continuum:

First, trust maybe develops within a tribe or a small village. This trust maybe enables or at least fosters the interaction between strangers and therefore increases trade and exchange for example of knowledge. This again could cause social and economic development. So, it seems appropriate to assume that trust was exogenous to institutions and growth at the beginning. But then trust becomes endogenous for the greater part at this stage of development: This is because trust may grow with more social interactions that are promoted by falling interactions costs, evolved social norms or some cultural features of a society. These again result from the technological and organizational advantages that only become possible through trust promoted interactions. At this stage trust probably spreads out and is preserved through some process of gene-culture co-evolution discussed in Durham (1991) or through some cultural selection processes as described in Axelrod and Hamilton (1981), Galor and Moav (2002) or Tabellini (2008a).

But then trust reaches at its limit when development advances further. The limit exists because trust is related to social closeness, similarity between people and homogeneity in general. This follows from the findings of experimental and neuroeconomic

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[5]Among the information people use to investigate the trustworthiness of others is for example sex, attractiveness or mimics (Eckel and Wilson 2004, p. 464). In another study Scharlemann et al. (2001) found that also smiling seems to be a relevant facial expression that indicates trustworthiness.

[6]Another even more speculative link is suggested by Zak and Fakhar (2006) who present some first cues that the trust level in a country could be connected to the intake of oxytocin and to environmental conditions. They also propose that the consumption of food containing phytoestrogenes may raise the trust level. This establishes a connection between the diet of people and the trust level in a country.

trust research discussed above that link trust to humans and generalized trust (the beliefs part of trust) in particular to a conditional judgement of the others trustworthiness. But social closeness and similarity both decrease when a society becomes more differentiated, anonymous and complex. As a consequence, formal institutions and a legal system will emerge as abstract and anonymous phenomena partly substituting trust. At what level/time of development this limit occurs depends on the initial level of trust. In a society with high trust levels it will appear earlier than in a low trust society. This is due to the fact that in high trust societies the virtuous circle created through the interplay of trust and its outcomes accelerates development. Furthermore, the institutional environment that is created is likely to be very different dependent on the initial level of trust. This fits e.g. to the considerations of Aghion et al. (2010,). Consequently, we also follow them in stating that trust is also endogenous at that stage because it is likely that the institutional environment interacts with trust through the shaping of incentives and beliefs. If some exogenous shocks lead to more regulation or stronger formal institutions trust will maybe decline then. So, at this stage trust is both endogenous and exogenous.

Apart from the fact that it is predetermined by some time-invariant exogenous determinants and therefore relatively stable over time the level of trust can change itself as a consequence of the implementation of new/ other institutions. This works through the self-reinforcing interaction between institutions and beliefs. As an outcome of such an interaction eventually self-sustaining and stable multiple equilibria arise. Such multiple equilibria again have different implications for the further economic and social development of the society.

From this story we can derive some testable hypotheses and estimation strategies to validate our claims and to investigate the true causality between trust and institutions. Among others, especially two important hypotheses emerge:[7]

Hypothesis 2. *High trust societies will create another institutional environment than low trust societies when they arrive at a stage of development where trust is not sufficient to sustain development. (Trust is exogenous to institutions).[8] The logic here is that high trust societies had lower transactions costs because they had less rigid and less anonymous institutions and less formal legal systems. That enables cooperation and*

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[7]Other implications of the model are for example that trust is a precondition for growth and development at a very early stage of development. As a consequence, it should be seen as exogenous in this case. However, in this paper we will concentrate on other aspects of the model.

[8] Countries that exhibit a high level of generalized trust before they decide which complex institutional environments to develop will choose a legal system characterized through low regulation, formalism and high individual independence. Countries with low levels of exogenous generalized trust will choose more formal and rigid regulation and a centralized legal system.

save costs because they do not need complex and differentiated institutions regulating everything and are very costly of course. This type of institutions is (partly) replaced by trust.

Hypothesis 3. *Trust is endogenous to formal institutions at a late stage of development. A change in formal institutional arrangements maybe decreases or increases trust —-depending on the initial level of trust— and then again changes the institutional environment due to the connection of both institutions and trust via beliefs.*

Note that hypothesis two and three include the predictions Aghion et al. (2010) made on the basis of their model. Therefore, in the following they are called "First Aghion et al. Hypothesis" and . In the cases of common and civil law, "Second Aghion et al. Hypothesis" would imply that if common law is introduced in a low trust country the level of generalized trust will decline. If instead civil law is introduced the level of trust will remain stable but at a lower level than in a high trust country where common law is introduced. When in a high trust country civil law is implemented the trust level will decline over time and maybe could even fall under the level of a low trust country with civil law. At last, if in a high trust country common law is introduced trust will remain stable at a level above that of a low trust country with civil law.

Having stated that, we now can turn to the description and discussion of the variables and measures used in the empirical section of the paper.

3. Data and Measurement

In the empirical analysis following this chapter, including both trust measures, overall 46 Variables from 19 different sources are included. All variables are on country level. Table A.1 in the Appendix provide a descriptive overview over all variables.

3.1. The Contemporary Trust Scores

The countries current trust levels we measure —following every other paper in the empirical trust literature the author is aware— with the share of respondents that answer the question "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" with "Most people can be trusted" from the World Values Survey (WVS) or related surveys like the Eurobarometer, the Lationbarometer, the Afrobarometer or the East-Asian Barometer.[9]. Experimental trust

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[9] To the knowledge of the author, all these different surveys ask literally the same question. The second part of the answer differs slightly between the surveys and the different waves of the respective surveys.

research (e.g. Holm and Danielson 2005) shows that trusting behaviour consists out of a preference part and a beliefs part. This question should measure the beliefs (expectations) part of trust. That is it indicates the prevalence of generalized trust in instead of specific or particularized trust.[10] We follow in the previous literature (e.g. Bergh and Bjørnskov 2011; Bjørnskov, 2008, 2009a, 2009b, 2010 and Bjørnskov and Méon 2010) and use the average trust scores over different waves and periods of the respective surveys.[11] To be precise we use the trust scores sample of Bjørnskov and Méon (2010). According to them these trust scores are collected from the fifth and most recent wave of the WVS, the 1995 and 2003 Latinobarometer, the 2001 – 2004 East Asian Barometer, the 2001 – 2007 Afro-Barometer and the 2002 – 2004 Danish Social Capital Project. [12]

Bjørnskov (2011, p. 13) has mentioned additionally some anomalies in the fourth wave of the WVS where some trust scores fall or rise sharply compared to the values in the waves before. To avoid measurement error we therefore constructs an own sample for robustness checks.[13] A comparison between both datasets for the most countries shows only marginal differences (probably due to rounding or different treatment of "no answer" responses). But for Thailand (difference 36.46 %), Uruguay (difference 10.81 %) there are very huge differences. Additionally we found differences between five and 10

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[10] Some scholars are concerned with the validity of this trust measure (e.g. Guinanne 2005). Much experimental trust research therefore assessed the validity of the trust survey question by comparing it with the actual trusting behaviour observed in the laboratory and its different components. The evidence produced by this literature is pretty much inconclusive.Glaeser et al. (2000), Gächter (2004), Holm and Danielson (2005), Ashraf et al. (2006), and Karlan (2005) found that the usual trust survey question does not capture trust but trustworthy behaviour and suggest the use of other questions e.g. about trust in strangers explicitly. On the other hand, Sapienza et al. (2010,) Cox et al. (2009) and Capra et al. (2008) report that the trust question is a valid predictor of the beliefs component of trust and the actual trusting behaviour in an trust experiment.

Furthermore, a point in favor of the standard WVS trust question is its strong correlation with the share of wallets returned in a so called "lost wallet game" mentioned by Knack and Keefer (1997, pp. 1257) and Bjørnskov (2011, pp. 8). Because such a "lost wallet game" seems to be a convincing indicator for what is meant by generalized trust there is some external validity of the question.

[11] Since many studies (e.g. Algan and Cahuc 2010; Bjørnskov 2006, 2011; Tabellini 2008b; Guiso et al. 2008b and Uslaner 2008) show that trust is relatively stable over time and has historical roots going back at least to the 17th century we will use average trust scores over different waves and periods of the respective surveys. This seems to be suitable also because it corrects some random or minor fluctuations that did not reflect secular time trends.

[12] Of course, because we use their sample we follow them in excluding China and Iran from the sample because of their quiet unusual and extraordinary high trust scores.

[13] These dataset is constructed as follows: It uses all currently available trust data from the Afrobarometer (Waves 1999/2001 and 2005/2006), the Latinobarometer from 1995 to 2010 and the East Asian Barometer from 2001 – 2003. These data is adopted from the respective online data analysis tools of the different surveys. For all other countries the trust scores are from the WVS 1981 – 2008 aggregated dataset. Some countries are not included in this data file for those we took the trust values from the latest wave of WVS (conducted between 2005 – 2008). This information we again receive via the online data analysis tool on the WVS website. Finally, data not available from those sources is supplemented by the original Bjørnskov and Méon (2010) sample.

% for ten other countries.[14] So, maybe these differences will change some of the results. Overall the sample reports the trust scores for 114 countries. [15] In the next section we will introduce and discuss our historical trust values we will later use to identify causality.

3.2. The Deep Roots of Trust – Constructing Historical Trust Proxies

Since survey trust questions are not available for more than the last 40 years or so for the identification of causality we need to found variables that are robustly related to present survey trust questions and either time-invariant or available for a time period before the introduction of legal origins. With these variables we are then able to construct proxies for historical trust levels in 1500 AD. [16]

In a first attempt to uncover the historical roots of trust, Bjørnskov (2011) discovered historical correlates of social trust ranging back till the middle of the 17th century. This is already a quite enormous achievement but because our variables should go back at least to the beginning of colonization at the end of the 15th century this is not enough for our purpose. Fortunately, the so called cultural school (e.g. Guiso 2008b; Tabellini 2008b) not only found evidence for a possible long-term persistence of trust since the middle age but also that is significantly determined by some at least largely time-invariant cultural variables like language or religion. Such variables can potentially be used to construct our proxies.

Christian Bjørnskov already used such kinds as instruments for historical trust in several papers (Bjørnskov 2009a; Bjørnskov 2010a, Bjørnskov and Méon 2010 and Bergh and Bjørnskov 2011). These variables are the minimum temperature in the coldest month of the year in a country, a dummy variable for countries that retain their monarchies and a dummy variable indicating whether the main language spoken in a country allow to drop the personal pronoun.

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[14] These countries are Belarus, Canada (this case is mentioned by Bjørnskov (2011, p. 13) as well), the Netherlands, El Salvador, Estonia, Japan, Latvia, Malta, the Netherlands, Nigeria, Serbia and Singapore.

[15] The former represents trust in a specific group of people one interacts repeatedly; the latter means trust in strangers i.e. people one does not know, in general. So, according to Knack and Keefer (1997, pp. 1257) this kind of trust reflects the expectations of people about the percentage of other people that will cooperate in a one-shot prisoners dilemma. Such kind of trust can therefore be seen as substitute for formal institutions.

[16] We are going to regress the variables we identify as proxy variables for the trust levels in 1500 AD on the contemporary trust levels and then predict the fitted values. These fitted values we then use as "proxies" for trust in 1500 AD in our regressions. This corresponds not exactly to the statistical definition of a proxy variable. However, because it seems nevertheless the best and most adequate term, in the following we will call these fitted values "proxy".

The latter variable was originally constructed by the psychologists Kashima and Kashima (1998) who used it to link language characteristics to cultural characteristics of the countries in which they are spoken. They found that languages that do not allow to drop the personal pronouns (like for example the Nordic languages or English) are connected with higher individualism than languages that do allow the pronoun drop (like Spanish). For the first time this variable was used in trust research by Tabellini (2008b).[17] He remarked that the literature uses this variable to instrument cultures with respect for individual rights i.e. that value the individual relatively more than its social relations. Furthermore the non-possibility of pronoun drop seems to be connected with societies that have better law enforcement and show a higher respect for the rules and laws. This all leads to the conclusion that this time-invariant grammatical rule has to be connected with generalized trust.

However, with respect to our subject of analysis —-the introduction of legal traditions around the world— it is not without problems. This is because the legal origins of many countries are connected with colonization. Colonization in turn is also connected with the introduction of the language of the colonizer in the colonized country. So, for colonies the pronoun drop variable maybe cannot be treated as time-invariant and exogenous to the introduction of legal origins. If the European languages that were brought to the colonies change the way people in the colonies think about the world and the relation between individual and society the use of the pronoun variable is maybe not meaningful.[18] This is particularly clear when one considers that the introduced legal origins at least in part are determined by the culture of the colonizer (its language and religion etc.) so in the end the colonizers transmit a whole and coherent set of religion, language and political systems to the colonized countries.

On the other hand, we can probably account for that sufficiently by controlling for colonization and religion in the regressions. And of course, the adoption of the languages by the colonized people in many countries was not as complete as the adoption of e.g. the Catholic religion in the Spanish and Portuguese colonies. In many countries the old, traditional languages stay in use or still exist parallel.[19] And often the old, traditional

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[17] Apart from the papers of Bjørnskov, the pronoun–drop variable is also used in D'Hernoncourt and Méon (2012) as a instrument for trust and in Gorodnichenko and Roland (2010) as instrument for culture (individualism).

[18] The so called "Saphir-Whorf-Hypothesis" that the language change the weltanschauung of the speakers and shape the way they look on the world is widely discussed in sociology and linguistic (e.g. Whorf 1956; Kashima and Kashima 1998).

[19] For example in Paraguay where, according to Lewis (2009) the great majority of the people (78.8 %) still speak Paraguayan Guarani. Furthermore, according to CIA (2011) Guarani and Spanish are the two official languages of Paraguay.

languages are mixed with the languages of the colonizer so the effects of language and culture cannot be studied so easy in that context. A last argument in favour of the use of the pronoun drop variable might also be that many colonies are already populated by Europeans in majority when the legal origins are introduced. The Indian population was often mixed with the European settlers or was decimated through ethnic genocide (e.g. Rubinstein 2004, pp. 45).[20] However, we will construct a proxy without the pronoun-drop variable to ensure that it does not bias our result.

The monarchy dummy -—one of the most robust covariates of generalized trust— is even more problematic. Bergh and Bjørnskov (2011, p. 4) justify the use of this variable with the argument that the transition to democracy might differ among high and low trust countries. In high trust countries democracies were introduced less violently and without the necessity to completely abolish the king. In the view of the author the fact that high trust countries maintain their monarchs might reflect the affinity of high trust societies to stick to less formal and anonymous institutions and to put greater emphasis on direct human relations. Maybe they also had not experienced such a great abuse of power through the monarch as in a country where people not as trusting and therefore also not as trustworthy. In this interpretation the monarchy dummy would time-constant factors of trust conserved over centuries. But of course one cannot rule out that the decision not to abandon the monarchy was influenced by a rise in generalized trust caused by the institutional environment i.e. the legal traditions. Thus we will present also proxies that do not include this variable.

The third variable employed by Bjørnskov is the minimum temperature in the coldest month of the year. According to him the idea behind that variable is that similar to an old argument of Aristotle in countries with hard and cold winters in the past people were more dependent on the help of strangers and individuals outside the family. He argues that if this is true generalized trust might be an evolutionary dominant strategy because it helps to interact with such strangers (Bergh and Bjørnskov 2011, p. 4). The notion that trust is influenced by climate is also supported by Durante (2009, pp. 25). He shows that trust is higher in regions with more erratic weather i.e. with a higher volatility in temperature and precipitation. The exogeneity of such climatic variable is without doubt.

In general, to look at geographical, climatic or bio-geographical covariates of trust in addition to cultural variables seems to be a good strategy to ensure exogeneity even

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[20] A special case in this respect is also the fact that in some South and Central American countries the indigenous population was partly replaced by African slaves (e.g. Osterhammel 2006; Engerman and Sokoloff 1994).

to events happened in the distant past. It is therefore valuable that in two papers Ahlerup and Olsson (2012) and Ashraf and Galor (2011a) show some additional channels through which such factors could influence the stable component of trust. Both papers investigate the historical determinants of ethnic/ genetic fractionalization important covariates of trust. The former for example shows that especially latitude and the time since settlement seem to be robust determinants of ethnic fractionalization and therefore could also be linked to trust.

In addition Ashraf and Galor (2011a) show the negative effect of migratory distance from the origin of mankind in Ethiopia on genetic diversity which is in turn linked to ethnic fractionalization (Ahlerup and Olsson 2012, p. 26). They additionally estimate that if migratory distance from Ethiopia (or to be precise: the genetic diversity predict by the migratory distance) is significantly negatively related to contemporary trust and that ethnic fractionalization becomes insignificant when predicted diversity is included in the regression. Because the time since human settlement seems to be influenced mainly through latitude and the migratory distance from Ethiopia one easily can link both papers as the authors also do (e.g. Ahlerup and Olsson 2012 pp. 24).

In general the correlation between all this variables is high and the connections are quite complex. Latitude seems obviously related to all of these variables. It is highly correlated with the average temperature as well as the minimum temperature in the coldest month, the migratory distance from Ethiopia and the time since human settlement. Furthermore it reaches the highest possible degree of exogeneity. For this reason we will use latitude as one of our additional variables to construct the trust proxy. We will also use the time since human settlement. On the one hand to capture its more clear-cut relation to ethnic fractionalization on the other hand because the time since human settlement might also affect trust and development because older societies had more time to develop successful concepts and values of social interaction.

But there is a second and even more interesting channel that justifies the use of these variables. That is the relation of genetic diversity and latitude to the population density in 1500 AD. This relation is the main point of the Ashraf and Galor (2011a) paper where they found an inverted U-shaped relation between genetic diversity and economic development measured by the population density in 1500 AD. This relationship reflects the two opposing effects genetic diversity exerts on economic development. On the one hand, it hinders economic development (and the emergence of trust) through its positive impact on ethnic fractionalization. On the other hand, it enhances development through its positive effect on the ability of societies to adopt new technologies thereby expanding

the production possibilities of the society (increasing TFP). So, by including latitude and time since human settlement we might also capture some of these causal linkages

Economic development as such is highly relevant for trust because —-especially in the early days— it might reflect a culture of creativity, intellectual openness and individuality that is associated with higher trust. Moreover, already in the middle age higher economic development was connected with the existence of a favourable institutional environment (e.g. the existence of guilds etc.) that also could have affected trust positively.[21]

In consequence, we also consider variables that measure the level of development more directly. As a first variable that could capture the impact of economic development we use the time since the Neolithic Revolution constructed by Putterman (2008) as a variable to construct the proxy. According to Diamond (2007) the Neolithic Revolution triggered technological progress and societal and economic development. His argument is that an earlier occurrence of the Neolithic Revolution (caused by favourable (bio-)geographic conditions) is associated with an earlier development and hence for a given point in time probably with a higher level of development ("Early Start Advantage"). As e.g. discovered by Ashraf and Galor (2011) this variable is a robust predictor of the economic development in 1500 AD. And it even has significant predictive power for today's differences in per capita income (e.g. Putterman 2008; Olsson and Hibbs 2004, 2005). Additionally, it is also worthwhile to include this variable because the differences in the timing of the Neolithic Revolution might themselves be caused by differences in the trust levels already existing in those very early days and might prevailed till now.

As a second measure for the economic development in 1500 AD we employ the index of technological adaption developed by Comin et al. (2010). Its inclusion is justified because it contains some components that account for the transportation and communication technologies that were in use in 1500 AD. If communication and transportation were easy transaction costs were possibly low what according to Labonne and Chase (2010) might have increased the trust level. In addition it might reflect better knowledge diffusion in a society that could at least in part result from a higher trust (higher intellectual openess and creativity). The index of technological adaption highly probable also captures some persistent characteristics of countries since it predicts the level of economic development today. Moreover the degree of technological adaption in 0 AD and 1000 BC predicts an considerable amount of the degree of technological adaption in 1500 AD (Comin et al. 2010). So, one might speculate whether one of the persistent

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[21] Alternatively, we might argue to the contrary that a high economic development in 1500 AD was the result of an already existing high level of trust. This high level of trust could have enhanced both economic development and social interactions despite the widely absence of sophisticated institutional arrangements, sanctions and enforcement mechanisms.

factors that lead to this observation is the time-invariant part of trust. In any case, they should be adequate proxies for economic development in 1500 AD and therefore could be employed in our analysis.

Finally, we also add the population density itself to the variables we use to proxy the trust level in 1500 AD. The reason for that is clear and follows from the argumentation in this paragraph. There are two additional reasons for this choice. At first population density data for 1500 AD is available for 106 of the overall 114 countries in our sample. This could guarantee a larger sample size as for the technological adaption index or the time since human settlement or the Neolithic Revolution because these are available for not more than 80 countries. Secondly, when included together with measures for culture and geography it might capture much more of the time-variant parts of the trust in 1500 than other two variables. We use all these variables only to construct the proxies if they are significant predictors of today trust levels measured by the survey question.

We also try to include variables that represent as much of the time-invariant stable components of trust as well as variables that measure the level of some time-variant trust relevant determinants in 1500 AD. With this strategy we try to capture as much of the actual level of generalized trust in 1500 AD. These considerations lead us to the choice of four different combinations of the variables introduced above. We regress these variables on the contemporary trust scores and predict the fitted values. These fitted values are then included in equation (10) as proxies for the level of trust in 1500 AD. The results of these regressions are shown in Table 1.

[Table 1 about here]

The fitted values resulting from the regression of the monarchy dummy, the pronoun-drop variable and the technological adaption index in 1500 AD on trust (column (1)) are used as the regular proxy in the analysis in the next section. This is because they explain over 50 % of the overall variance in the contemporary trust score, the most of all regressions. All three variables are significant at 1 % level. The fitted values generated from the estimation in column (2) where we regress latitude, the population density in 1500 AD and the pronoun-drop variable we use as a second proxy. With that we control whether the results of our estimation change if we do not include the "problematic" monarchy dummy and employ a much larger sample. The larger sample size is the most important argument for the use of that fitted values although they explain only 30 % of the variance in today's generalized trust and that the population density and latitude are only significant at 5 % level.

However, to ensure that our results are not driven by outliers, extreme samples or measurement error, we conduct a series of robustness checks. At first, we again report bootstrapped standard errors and re-estimate the regressions in column (1) and (2) with the trust score from the alternative sample as dependent variable (column (5) and (6)). The results change little. With the other sample of trust scores, we explain only 40 % of the variance with our first set of variables instead of 50 %. But this is still enough to get meaningful results we suppose. Technological adaption is a little bit less significant but it clear above the 5 % level.

Additionally, we conduct for every of the regression in columns (1), (2) and (5), (6) a jackknife task, re-estimating the sample 80 or 106 times respectively and each time excluding one country. In the Appendix Tables B.2 - B.5 the results of those are reported (the highest and the lowest coefficient values and the respective country excluded in each case).

At last, we use the fitted values of two other regressions as proxies. These we will use only for robustness checks for particular regressions. The fitted values resulting from the regressions in column (3) and (7) where we employ the technological adaption index in 1500 AD, the time since Neolithic Revolution and the logarithm of the time since human settlement as explanatory variables we will use to check our results for sub-samples that consist only out of former colonies. This is because the two potentially problematic variables monarchy and pronoun-drop are not included there. The problem with that regression is that only 68 observations could be used to predict the fitted values and in consequence to estimate equation one. The last fitted values we use to check robustness result from the regressions in column (4) and (8) were we use the three variables employed by Bergh and Bjørnskov (2011). But since they contain the doubtful pronoun-drop and monarchy variable we will not use them on regular basis despite the fact that they would allow to use the full sample for the analysis.

Having introduced the historical trust proxies in the remainder of this section we turn to the measurement of the different legal origins and to the description of our control variables.

3.3. The Measurement of Legal Origins

The third main variable we employ is the type of a country's legal system (its legal origin). We classify the legal origins according to the new coding developed by Klerman et al. (2011) instead of the coding following La Porta et al. (2008) almost exclusively used in the previous literature. The major difference of this new coding is that it classifies some

countries as "mixed legal origins" (Klerman et al 2011, pp. 7). This seems appropriate because there are some countries for which colonial history and legal tradition do not coincide. In these countries the legal systems contain elements of both common law and civil law. Most of these countries were first colonized by a country that implemented some kind of civil law (e.g. France, the Netherlands or the Ottoman Empire). Later these countries were conquered by England but the British changed only parts of the already existing legal system. Therefore it seems to be important to distinguish between pure common law countries and those with a mixed legal system. This is the case because these mixed legal origin countries with their possibly inconsistent institutional environment could bias our results for the common law countries in one or the other direction.

Supplementary such mixed legal origin countries in principle were subject to an additional exogenous institutional change compared to other countries what also could lead to biased results.[22] Nevertheless we use the alternative legal origin coding of La Porta et al. (2008) for robustness checks.

Altogether, there are 21 British common law countries, 58 French civil law countries, eleven countries with mixed legal origin, 18 with German legal origin and five with Scandinavian legal origin in our sample. In Table A.2 in the Appendix there is an overview over all countries in the sample, their trust scores and legal origin coding.

Albeit the legal origins literature has shown that there are measurable differences between the different legal traditions they remain very broadly defined. Due to this not all of their features might be important in our context. Therefore, we also use some measures for institutional features related to the different legal traditions and to trust for our empirical estimations. As such disaggregated measures for institutions we use following various studies of the empirical institutions and trust research (e.g. Berggren and Jordahl 2006; Heinemann and Tanz 2008) the Economic Freedom in the World Index (EFI) from Gwartney et al. (2011). We take the index values from 2009. Additionally we make use of three of the Dimensions of the Worldwide Governance Indicators (WGI) from the World Bank (Kaufmann et al. 2010), namely the "Rule of Law" the "Regulatory Quality" and the "Control of Corruption" components again from 2009. We choose these two indicators for several reasons. At first, these indices are widely

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[22] It is quite likely that e.g. South Africa which was a Dutch colony for almost 150 years before the British conquered it at the end of the 18th century was already imprinted by the kind of civil law the Dutch imposed. This means civil law could already has influenced the trust level in these countries —in a positive or negative way depending on their initial trust level. Therefore it could have changed their reaction to the imposition of parts of common law by the new British Colonizer, compared to a situation without colonization before.

used in the literature and thus our results are comparableto previous work. Second, these indicators are available for almost all countries in our sample what is favorable from an econometric point of view. Third, especially the two components "Legal Structure and Property Rights" and "Regulation of Labor, Credit and Business" of the EFI seem to be related to exactly that kind of institutions related to the legal origins. Furthermore the EFI Index data contains also some relatively fine grained and disaggregated measures of particular institutional features like its component C.3 "Bureaucracy Cost" that are probably much more valid and clear cut than the aggregated areas of the EFI or the WGI. Especially since Bjørnskov (2010, p. 331) and Langbein and Knack (2010) notice that the different dimensions of the WGI are very highly correlated, defined very broadly and therefore probably measure all the same broad concept. So, they are maybe not adequate to measure such a latent concept like legal origins that is empirical identifiable maybe only in some very special and specific institutional features.

Consequently, we do include various measures of actual judicial and regulatory rules additionally to some measures of institutional outcomes. Furthermore, we use some specific measures for the characterization of legal systems developed in the legal origin literature. At first we adopt three variables constructed by Klerman et al (2011) to measure the differences in the judicial systems of the particular legal traditions. These are the use of Juries in court cases (Juries), the institutional acceptance and implementation of case law instead of codified law (Caselaw) and whether Supreme Court judges in a country have a constitutionally guaranteed life long tenure (Tenure). Additionally, we use a variable that we adopt form La Porta et al. (2008), namely an index that measures the formalism of legal procedures by the time it takes to collect a bounced check (La Porta et al 2008, pp. 293). From this source we also adopt our measure for labor market regulation (Labor Market Regulation) and for the Regulation of Market Entry (an index that counts the number of steps that is necessary to open a business). At last, we use the "Democ" variable from the Polity IV project database to measure the degree of institutionalized democracy in a country.

3.4. Control Variables

Our control variables are collected from eleven different sources. The measure of ethnic fractionalization stems from Alesina et al. (2003). From the Barro and Lee education dataset (Barro and Lee 2010) we take the variable for the average years of total schooling of the population above 25 and the percentage of population that is aged over 25 that attained secondary education, both measured in 2010. From the CIA World Fact Book

(CIA 2011) we take the variable for the age structure of a country (number of people between 15 and 64) and the Gini coefficient. The age variable is from 2009, the Gini variable reports the latest available values. From the Penn World Tables (Heston et al. 2011) we take the PPP converted real GDP per capita in 2009 and our openness measure (Openness) that is the share of imports and exports of the real GDP also for 2009. The share of a countries population that is Muslim, Catholic or Protestant is taken from La Porta et al. (1999). As geographical controls we employ the Latitude of a country in absolute degrees from Parker (1997) and the index of malaria risk from Sachs (2003). The population density and the urbanization rate in 1500 AD we adopt from Acemoglu et al. (2002). At last, dummies for Sub-Saharan Africa and post-communistic countries are employed to account for the systematically lower trust scores of these countries. The former dummy is coded by the author the latter follows the coding of Bjørnskov and Méon (2010). With this list the author supposes all variables that are used as controls or that are identified to be relevant covariates of generalized trust by the literature are covered so omitted variable bias seems to be at least no particularly problematic issue.

4. Empirical Analysis

4.1. Trust and Legal Origins – The Connection

In this section we test hypothesis one, whether legal traditions and trust are connected with each other through specific arrangements and features of the legal and regulatory system of a country. The economic legal origins literature (e.g. Botero et al. 2004; Djankov et al. 2002; La Porta et al. 1999; La Porta et al. 2004 and La Porta et al. 2008) typically investigates the relation of legal origins to three different areas of the institutional continuum:

- The effect of different legal origins on the regulation of financial markets, creditor rights and investor protection.
- The impact of legal origins on government regulation of particular economic activities and the extent to which the state acts as owner of banks or other business branches.
- And at last the literature analyses the consequences of different legal traditions on the characteristics, that is the functioning, design and formalism of the legal system.

The literature usually found that civil law is characterized through stronger and more rigid regulation, for example of market entry or the labour market than common law (e.g. Botero et al. 2004; Djankov et al. 2002 or La Porta et al. 2008, pp. 294). Common

law in contrary is associated with lower formalism of judicial procedures, longer judicial tenures and higher prevalence of case law (La Porta et al. 2004; La Porta et al. 2008, pp. 297). Finally, this research concludes that civil law countries in general have a lower protection of shareholders and creditors, inefficient possibilities to enforce debt, a higher government ownership and control of financial institutions (La Porta et al. 2008, p. 294). In the following we focus on the relation between legal origins, regulation of labor markets and market entry, the features of the legal system and trust.[23]

As a first step we regress the legal origin dummies on the trust scores and a set of controls. That is we estimate the following equation:

$$Trust_i = \alpha + \beta'\mathbf{LO}_i + \gamma'\mathbf{X}_i + u_i \tag{1}$$

Where LO_i is a vector of dummy variables for the different legal origins. X_i is a vector of appropriate control variables. u_i represents the error term capturing the influence of unobserved factors. The results of these estimations are reported in Table 2. In column (1) of Table 2 we add variables for the share of Protestants, Muslims and Catholics to the legal origin dummies and then up till column (7) in each column we include a different control variable to the religion variables and the legal origin dummies. These are ethnic fractionalization, years of schooling, the share of people between 15 and 64, the latitude in absolute degrees a dummy for constitutional monarchies, post-communistic and Sub-Saharan Africa countries and the logarithm of the GDP per capita. In column (8) we for the first time include all the controls in one equation. Then we also add our measure for openness and in the last column the Gini coefficient to the full specification. We add the Gini coefficient only to the full specification because it is found to be one of the most robust covariates of trust (e.g. Berggren and Jordahl 2006; Bjørnskov 2006, 2008).

We think that in the full specification in column (10) almost all relevant variables that are considered to be possible covariates of trust by the previous literature are included (e.g. in Algan and Cahuc 2010; Alesina and Ferrara 2002; Berggren and Jordahl 2006; Bergh and Bjørnskov 2011; Bjørnskov 2008, 2009a, 2009b, 2010; Bjørnskov and Méon 2010; D'Hernoncourt and Méon 2012; La Porta et al. 1997; Roth 2009 and Özcan and Bjørnskov 2011). In almost all estimations the legal origin dummies are insignificant – apart from the Scandinavian legal origin dummy that is marginally significant two

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[23] We do not establish that there is no relation between trust and creditor or investor protection or that these areas are not relevant in that context, but we will concentrate our attention on the other areas. In addition, since we also include some aggregated measures of regulation as well as the EFI component of credit market regulation in the analysis we at least in part cover also these aspect in our investigation.

times. Concerning the covariates we confirm and replicate to a large extend the results of Bjørnskov (2006). Like him our results suggest that being a constitutional monarchy, the Gini coefficient, being Catholic and having a communistic past are robustly related to generalized trust. Additionally, we report also a significantly lower trust in Sub-Saharan Africa and in Muslim countries in the most of ours specifications.

To validate the stability of our results we conduct several robustness checks reported in Table B.1 in the Appendix. For example we regress the model of column (10) with the trust scores of our alternative trust score sample described in section three and with the alternative legal origin coding of La Porta et al. (2008) (columns (1) – (3)). In columns (4) to (7) we re-estimate the regressions of column (1) to (3) using bootstrapped standard errors to rule out that the results are driven by outliers or an extreme sample. Finally in columns (8) – (10) we add additional controls (malaria risk in 1994, population density and urbanization rates in 2010 or 2009, respectively) and employ another measure for education (share of people with secondary education instead of average years of schooling). Nothing changes substantially due to these robustness checks. The new or alternative controls are insignificant and what was robust in the baseline regression continues to be robust. The only slight change we can detect is that being a Muslim now is even more robust and significantly negative related to trust than before.

Some of the controls used in these regressions are probably endogenous. For example the ethnic fractionalization variable enters with a positive sign in the most of the regression what is quiet counter-intuitive and not in line with previous findings. Possibly this is due to the fact that ethnic fractionalization is also influenced through trust or both variables are influenced through a third variable like e.g. genetic diversity. This is suggested by some very recent research for example of Ashraf and Galor (2011a) or Ahlerup and Olsson (2012). Furthermore, Bjørnskov (2006) argue that of the variables included in our specification possibly also the Gini coefficient, the real GDP per capita and the education measure are endogenous. Moreover, we also instrument our Openness measure because its endogeneity is quite likely since it is a component of the real GDP per capita that we consider to be endogenous. We address this issue by running Instrumental Variables (IV) estimates for every of these variables. To be precise, we do Limited Information Maximum Likelihood (LIML) regressions of equation one.[24] The results are shown in Table 3.

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[24] This estimation method has better small sample properties and is most often more efficient than the standard 2SLS method, especially in the presence of weak instruments. Its confidence intervals are more reliable and it is unbiased in the median when the instruments are weak (Stock and Yogo 2005).

In a first estimation (Panel B column (1)) we use the dummy variable "pronoun-drop" indicating whether it is possible to drop the personal pronoun in spoken language or not as a first instrument for ethnic fractionalization. As second excluded instrument an index of technological adaption in 1500 AD developed by Comin et al. (2010) is used.[25] In the first-stage, we regress both on ethnic fractionalization including all other exogenous variables from the regression in Table 3 column (10) as controls.

[Table 2 about here]

Both instrumental variables are highly significant and negatively related to ethnic fractionalization. Thus, relevance of the instruments could be assumed.[26] In the second stage, ethnic fractionalization is significant at 5 % level and enters with the expected negative sign and a large coefficient. Accordingly, a Hausman test shows that exogeneity of ethnic fractionalization can be rejected at 1 % level. Second, we repeat the same procedure but this time instrumenting the Gini coefficient by the time since Neolithic Revolution variable, the population density in 1500 AD and the latitude. Again, we estimate that latitude and the time since agricultural transition are relevant and valid instruments.

[Table 3 about here]

The Gini now is insignificant in the second-stage but at least its sign stays negative. However, the endogeneity test does not reject exogeneity of the Gini coefficient. This is a result in line with the findings of Bjørnskov (2006, pp. 13).

In a third LIML estimation we employ the years since Neolithic Revolution, latitude and the natural logarithm of the Frankel-Romer predicted trade share as instruments for the real GDP per capita and the openness variable. Once more, all statistical tests show that these instruments are relevant and valid although of the three employed instruments only the Frankel-Romer predicted trade share is a significant predictor of our openness measure. The result is that real GDP per capita now becomes marginally significant at

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[25] Both seem arguably to be exogenous and pass as shown in Panel A of Table 3 the Sargan statistics. Since the technological adaption index in could be seen as a valid proxy for the level of development in 1500 AD and development is probably negatively affected by ethnic fractionalization there is a clear theoretical link between both. The time since Neolithic Revolution could also be seen as a proxy for today's economic development. Complementary, the pronoun-drop variable could reflect a collectivistic, family- or nation-centered culture that is maybe detrimental for ethnic fractionalization and a diverse culture. We will introduce and discuss this and the other instrumental variables later on in section 4.2.

[26] In addition, a Sargan test of overidentifying restrictions indicates that the instruments are also valid.

the second stage. Openness remains insignificant. In this case, the test for endogeneity cannot reject the joint exogeneity of openness and GDP per capita.[27]

At last, we instrument the years of schooling variable with latitude and the population density in 1500 AD. As before the instruments seem to be strong. The variable nevertheless remains insignificant but now shows a – more intuitive- positive sign. The test of endogeneity once more cannot reject exogeneity also of the education variable. Using OLS instead seems therefore the better choice. For the other variables nothing changes considerably, i.e. the monarchies, post-communistic and Sub-Saharan African countries as well as the countries with a high share of Catholics seem to differ significantly from other countries. Of course, only the share of Catholics and the monarchy dummy are significant in every of the first stages and the mixed and German legal origin dummies are significant in one regression each. But we should not stress these differences very much since apart from ethnic fractionalization all variables are probably exogenous and therefore the OLS estimates are the correct ones. In sum, endogeneity seems not to be a big issue in our sample and do not change the results remarkably. The only exception might be ethnic fractionalization that seems to be endogenous probably due to reverse causality that causes a downwards bias. However, the results regarding the legal origins are almost completely unaffected by these issues.

But let us now return to the analysis of our main variables. Unfortunately the legal origins are still insignificant even after controlling for many factors. Does this mean that they are not relevant and do not matter for trust as for example La Porta et al. (2008) suppose? Maybe an even more detailed analysis is necessary. Obviously there is still too much heterogeneity in the sample or alternatively we did not take into account some factors that are decisive for the identification of the effects of legal origins on trust. To uncover the effects of legal origins we conduct a more differentiated analysis. The results of these regressions are presented in Table 4.

In the first two estimations reported in this table we regress trust on the legal origin dummies and all robust covariates from Table 2 column (10). We also add a dummy that indicates whether a country is a former colony or not and exclude all post-communistic countries from these regressions. Furthermore, in columns (1) and (2) the sample is restricted on countries with below and above median values in the index of institutionalized democracy from the Polity IV project. What is the motivation for that sample restrictions and modifications?

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[27] If one tests the endogeneity of the GDP per capita only or instruments both variables separately, this would not change this result. The exogeneity of the Ln (GDP per capita) cannot be rejected in every of these cases. (regressions available upon request).

Concerning the colonies the argument is that colonies differ enormously from not colonized countries in many aspects. Some of these aspects are also relevant for our analysis. For example the most colonies had to adopt their legal system from their colonizer (La Porta et al. 2008, p. 288). And even when they choose their legal system voluntarily after the become independent (like some of the former Spanish and Portuguese colonies in the 19th century) they are already shaped by the culture and religion of their former colonizers and very often, at least in South America, the Indian population was almost fully replaced or at least mixed with settlers of European origin. So the choice of the legal origins was not fully exogenous for these countries.

[Table 4 about here]

But of course, colonization was a very complex process that had quite different consequences for every colonized country depending on by which particular country it became colonized, its geographical location, its endowment with resources and the stage of development it had already reached when colonized. So, there are many reasons why we have to expect that these countries although they themselves are still a quite heterogeneous group of countries differ systematically from the not colonized countries.[28] They all were subject to the same treatment that was connected with a deep and fundamental exogenous cultural and institutional change.

The exclusion of post-communistic countries follows the same logic. These countries are also significantly different from the other countries and had a very special and changeful history regarding their legal traditions.Most of them had already adopted some legal tradition when they became communistic after World War II and the formation of the Soviet Union. Their legal system was then modified according to socialistic ideas. After the breakdown of the iron curtain and the socialistic regimes these countries once more choose a new design for the legal system more or less voluntary but certainly not independent from their previous history.

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[28] That the era of colonization was is a quite complex period that cannot be handled easily by empirical research is for example emphasized by Olsson (2009). He argues that the period of colonialism has to be divided in two different phases, the mercantilist phase (meaning the colonization of Latin America through the Spanish and Portuguese) and the imperialist phase (meaning the colonial activities of Britain, France and other European states in late 19th century). Of course, this distinction is appropriate especially for the analysis of the consequences of colonialism for development. Nevertheless, to highlight the fact that one has to distinguish both waves of colonialism is useful also for our purposes. We take this into account in our later empirical investigations by treating some early Spanish or Portuguese colonies as countries with endogenous legal origin. This choice results from the fact that they become independent in the early 19th century at a time where the legal origins are already not fully developed even Spain or Portugal. In consequence, assuming exogenous legal origins for these countries seems to be much more doubtful than for many African countries that become colonies decades later.

At last, the argument for separating the sample in democratic and less democratic countries is straight forward. The impact of legal traditions could only show up empirically if the institutional arrangements connected with them function in the way theoretically assumed. What is the value of using juries in court cases when the juries are corrupt? And what if there is case law as source of law or a high judicial independence exists according to the officially written down law but a country is reigned by an autocrat who enforces his will anyway? The idea here is to address the maybe existing difference between actual institutional outcomes and the legal rules and constraints mentioned. However, the result of the regression for the less democratic countries (column (1)) is that French legal origin now enters with a positive sign and the colony dummy is strongly significant. On average, colonies show around 21 percentage points less trust than not colonized countries.

This is a clear indication that the distortions of colonialism had strongly negative consequences on generalized trust. Alternatively the bad performance of the colonies could also be caused due to inferior geographic or climatic condition or due to their greater ethnic diversity. If we indeed control for both (not reported) these variables are not significant and the coefficient of the colony dummy becomes even more negative.[29]

But how should we interpret the positive sign of the French legal origin dummy? Technically the interpretation is easy: In countries with a low level of democracy and therefore also low rule of law French legal origin seems to be favourable for trust. From the viewpoint of theory these finding is interpretable in different ways. A possible story is that if French legal origin (high and rigid regulation, centralized bureaucracy etc.) is introduced in a country where the trust level out of diverse reasons is already low it is consistent with the beliefs of people and therefore the already existing low trust does not fall. When in contrast in such an environment common law is introduced this will lead —-according to the Aghion et al. model— to a huge decline in trust, so that these countries may end up with less trust than French civil law countries. But of course this story rests on the assumption that the countries were already autocratic or low trusting when the legal origins were introduced. This has to be examined in greater detail, of course. Another story would be that the different legal origins are not always adopted equally well in every country depending on for example culture. If for instance common law would be introduced in a Islamic country with a very collectivistic culture and low affinity to democracy it maybe work not as good as civil law and is not adopted and internalized by the people. Since almost the half of all countries in this sub-sample are Islamic and apart from four (Saudi Arabia, Jordan, Kuwait, Thailand and Yemen) all

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[29] Not shown but available from the author upon request.

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are former colonies such a story might be true. Maybe we will get a clearer answer after the analysis in the next section.

The results for the countries with a better democracy score (column (2)) are not so unexpected. The sign of the French legal origin dummy is negative but it is insignificant. The Gini coefficient becomes significant again and the colony dummy loses its significance. The latter indicates that the much lower trust of colonies can be traced back to a deficit in democratic institutions and not to other factors. In general there are remarkable differences between both samples. The model performs much better for the democratic countries explaining more than 80 % of the variance in the trust scores while it only explains around two third of the variance in the trust scores of the less democratic countries.

In the last column (3) we continue to follow the same logic. But instead of using a very broadly defined measure of democracy we use the control of corruption scores from the Worldbank. This indicator is a more precise measure of what we are interested in: are the government, the officials, judges, bureaucrats etc. in a society corrupt or not? Do the institutions work well or can one act against the law if one is rich or powerful enough? We have seen already in the columns (1) and (2) that there is a difference depending on whether there is democracy or not. In regression (3) we again consider the whole sample.[30] Therefore dummies for the post-communistic countries and former colonies are added to the specification. Moreover, we include a dummy variable that is one for countries that are above the average in the control of corruption score, i.e. have low corruption. We then interact this dummy with the legal origin dummies.[31]. The low corruption dummy itself is highly significant and shows a positive sign. Low corruption is thus associated with high trust, as predicted by the Aghion et al. (2010) and others. Most interesting, French legal origin countries with low corruption show significantly less trust than for example their British counterparts. This effect is such high that common law countries exhibit even higher trust levels than the French legal origin countries unlike their basic trust level —indicated by the positive sign of the French legal origin dummy—

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[30] This is motivated primarily to make use of the advantages of a larger sample size. Our results concerning the interaction terms and the low corruption dummy would also hold if we would exclude the post-communistic countries as in the regressions before (regression available upon request).

[31] That is equation (1) is extended to:

$$Trust_i = \alpha + \beta'_1 \mathbf{LO}_i + \beta_2 * LOWCORR_i + \rho' \mathbf{LO}_i * LOWCORR_i + \gamma' \mathbf{X}_i + u_i$$

Where we are interested in the coefficient-vector ρ

is lower.[32] This maybe indicates that when the institutions in these countries work like they should the more rigid regulation and the more centralized bureaucracy show indeed their detrimental effect on trust. Apart from the little bit strange negative overall effect of less corruption in mixed legal origin countries low corruption is in general related to higher trust also something in line with our expectations.

In a certain sense the result is quite logical. In common law countries people that act in institutions like judges or so have much more freedom and power so they can abuse this freedom for their own purposes. In more regulated French legal origin countries trust in general might be lower and corruption might be higher but nevertheless the opportunities to get corrupt and the damage that created by its maybe lower. So, the reaction to changes in the incentive structure of a society are maybe more distinctive in common law countries that is the "good equilibrium" with more trust is also the more sensible and unstable. But one hast to be cautious in drawing such conclusions from these results since the model of Aghion et al. (2010) suggests that the level of corruption itself might be endogenously determined by the level of trust in a society.

However, the main message of these regressions is: In democracies and when corruption is low that is the institutions work in the way they are designed the impact of legal origins is much more visible and prevalent than when one only looks at all countries that are aggregated under a legal tradition. This is also important to notice with respect to the finding of La Porta et al. (2008, pp. 313) that the significant differences between civil and common law they estimate also hold in autocratic countries. Again, we do not deal with the obvious question whether or under which conditions the implemented legal systems themselves endogenously lead to more or less corruption.

As the next step of this general analysis we regress selected features of the judicial and regulatory system we found significantly related to legal origins on trust. These regressions are reported in Table 5. There we estimate the following specification:

$$Trust_i = \alpha + \beta'\mathbf{INST}_i + \gamma'\mathbf{X}_i + u_i \tag{2}$$

Where $INST_i$ is a vector of institutional measures associated with the different legal traditions and X_i is a vector of appropriate control variables. u_i represents the error term capturing the influence of unobserved factors. In the first three estimations we regress the total EFI index score in 2009, its relevant areas and five controls (the Gini coefficient, the post-communism dummy, the monarchy dummy and the shares of Mus-

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[32] If one adds up the coefficients the trust level of French legal origin countries with low corruption is -3.975 percentage points lower than that of common law countries with high corruption (the base group here).

lims and Catholics) on trust. Only the total score is related to trust after including these controls. From the three variables for the design of legal institutions only case law as source of law seems to be significantly related to trust (column (4)). Low corruption as expected is attended by high trust clearly indicating the importance of beliefs for trust. It is dubious why rule of law enters with a significant negative sign. But because the control of corruption variable enters significant and with positive sign this is likely to be a consequence of the already mentioned high correlation between these three measures especially between the two dimensions of the governance indicators rule of law and control of corruption (0.96).Formalism of the judicial system something very high especially in Scandinavian countries seems not to be significant in the first regression (column (6)). Interestingly, a higher labour market regulation is highly significantly associated with higher trust. This is not only caused by the Scandinavian countries because when they are excluded (regression not reported) the coefficient is somewhat lower but remains positive and significant at 5 % level. But if we use an alternative index e.g. the labour market regulation component from the EFI apart from credit market regulation everything becomes insignificant. This result needs to be investigated further in future research.

Apart from all that, the far most interesting results are shown in columns (8) to (11). In column (8) and (9) we repeat the regression from column (6) but in column (8) we only include countries with an above average score in the control of corruption index. In column (9) we then restrict the sample to observations with an above median value in the rule of law dimension of the Worldwide Governance Indicators. The consequences are conspicuously. The size of the formalism index coefficient increases by more than 60 times and it becomes now at least marginally significant. The same holds true for columns (10) and (11) where the model in column (4) is re-estimated for a sub-sample of countries that exhibit above median scores in the index of institutionalized democracy already used in the table before.

[Table 5 about here]

All three measures (tenure, case law and juries) become significant and the size of the coefficients increased remarkably. The unexpected sign of the tenure variable is presumably driven by the Scandinavian countries that all have no constitutionally guaranteed life-long tenure for their Supreme Court judges. If they are excluded from the sample the tenure variable gets insignificant but the negative sign remains (regressions not reported). The other two variables are unaffected from the exclusion. So, maybe a life-long

tenure of Supreme Court judges is not such an important institutional indicator of trust than the other two.

Finally, in column (10) we estimate the same model a third time but with a sub-sample of countries that have below median values in the democracy score. As in the table before we found striking differences, every variable becomes insignificant and the R^2 as well as the adjusted R^2 (from 0.53 to 0.18) reduces impressively. Thus again, there seems to be a systematic difference between democratic and less democratic countries.

The main conclusion we can derive from this estimates is clear: legal origins matter for trust but only when the institutions work and the enforcement of law is guaranteed. This does not mean that institutions are not as important as proposed by them but reflects the fact that they only can matter if the legal rules and laws and the actual functionality of the institutions do coincide.

A last thing we do in this chapter is shown in Table 6. There we show some possible channels through which institutions and trust are connected via legal origins. We do this by two 2SLS and one Three-Stage Least Squares (3SLS) estimation. First we run the 3SLS estimation (columns (1) – (4)) where we in the third stage include also the common controls and employ the sub-sample of above median democracy score countries. The goal of these regressions is to show the connection between case law, tenure and juries, corruption, the second area of the EFI Index (Legal System and Property Rights) and trust. The results are as expected (apart from the fact that tenure seems to be negatively related to low corruption). They show that the use of juries, case law as source of law and a life-long tenure of Supreme Court judges – institutional and constitutional arrangements connected with legal origins- influence the level of corruption in a society. This level of corruption in turn influences the effectiveness of the legal system and the security of property rights (what is measured in the second area of the EFI).

Finally, the effectiveness of the legal system and the security of property rights significantly influence the level of generalized trust in a society. In column (5) we show the third stage of the 3SLS estimation when we include also the legal origin dummies. The coefficient of the EFI_2_2009 variable becomes insignificant then. This indicates that the effect of case law, juries and tenure on trust via lower corruption and better property rights maybe do not reflect more than the impact of the respective legal origins connected with these variables on trust.

In columns (5) – (8) we report the result of the 2SLS estimations. The first of those show that the amount of variance in the EFI area 2 that is explained by the control of corruption and the formalism of the legal system is significantly related to trust. This relationship is robust to the inclusion of various control variables. In the last 2SLS

regression we consider an alternative channel from regulation to trust via the impact of market entry regulation on the area five of the EFI index (Regulation of Labor, Credit and Business).

The purpose of this last 2SLS estimation is simply to show that even one single regulatory feature connected with legal origins is a significant predictor of generalized trust. These channels are only examples and other channels that work in the same manner are possible and probable. We also do not postulate some hypothesis about causality in these estimates noting that it run most likely in both directions. We simply wanted to show that there is a connection.

We now will turn to our second and third hypotheses, i.e. we try to figure the causal relationship between trust and the legal system.

[Table 6 about here]

4.2. Trust, Beliefs and Institutions – Assessing Causality

4.2.1. Empirical Strategy

To verify the "Aghion et al. Hypotheses" we employ two different empirical strategies.

The first of the two "Aghion et al. Hypotheses" we will investigate by conducting IV probit regressions where we regress the dummy variables for British legal origin and French legal origin on the variables we used to construct our historical trust "proxies". In these IV estimations we will restrict the sample to countries that adopt their respective legal origin endogenously, i.e. voluntarily. Because in not all cases it is clear whether a country adopt its legal origin endogenously or became it imposed by a conqueror or colonizer we will consider different samples with a different composition of countries.

The "Second Aghion et al. Hypothesis" we test with a Difference in Difference like approach were we regress the contemporary trust scores on the trust proxy (the historical trust score in 1500 AD) and then try to explain the rest of the variance we did not control for in plugging-in the exogenous variance. In other words, we control for trust in 1500 AD – or the stable components of trust- and try to decompose the residual into the legal origin dummies, and control variables. This corresponds to treating the introduction of legal origins as quasi-natural experiment and the countries that adopt a certain legal origin are considered as treatment group while the countries that adopt another legal system act as respective control group. Furthermore, in the specification we include interaction terms where we interact the legal origin dummies with dummies indicating a high or a low historical trust country. This avoids the problem of a too low sample size we

probably have to face if we use separate samples. That is, we assess the "Second Aghion et al. Hypothesis" by allowing the treatment effect to differ conditional on differences in the ex-ante trust level of countries. That is we estimate the following equation:

$$Trust_{i,c} = \alpha + \beta_1 HTR_{i,1500} + \beta_2 HHT_{i,1500} + \gamma' \mathbf{LO}_{i,c} + \rho' \mathbf{LO}_{i,c} * HHT_{i,1500}$$
$$+ \theta' \mathbf{X}_{i,c} + u_i \tag{3}$$

Where $TRUST_{i,c}$ represents the contemporary (c) trust scores for country i as described in chapter two. $HTR_{i,1500}$ is the used proxy for historical trust in country i in 1500 AD it consists out of the fitted values from regressions of certain suitable variables on the contemporary trust scores we will explain and report in the next section.[33] $\mathbf{LO}_{i,c}$ is a vector of dummy variables (or a categorical variable) one for each legal origin (British, French, Mixed, German and Scandinavian legal origin) that indicates which country has adopted which legal tradition today. As before, in every regression British legal origin is the base group. $\mathbf{X}_{i,c}$ is a vector of control variables. Finally u_i is the error term capturing unobserved factors. We interact the vector of legal origin dummies $\mathbf{LO}_{i,c}$ with a dummy variable indicating above median or above average historical trust $HHT_{i,1500}$. For identifying the effect of low historical trust $HHT_{i,1500}$ is replaced by $LHT_{i,1500}$ dummy denoting countries with below average or median historical trust values. We estimate equation (2) for a sample, where we have excluded the countries with endogenous legal origins. Then, we hopefully can estimate the pure treatment effect of the implementation of legal origins in conquered or colonized countries.

However, we will also make use of three-way interaction terms because even when working with two-way interaction terms, low sample size could be a problem. In this regressions, we furthermore only will use a dummy that indicates below median historical trust, since more countries in our sub-samples exhibit low historical trust values. That is, we will interact the low historical trust dummy with the legal origin dummies and also with the dummies for former colonies or colonies with exogenous legal origin according to Klerman et al. (2011). We will run the regressions for the two sub-samples of former European colonies identified by Acemoglu et al. (2002) and for the colonies with exogenous legal origin according to Klerman et al. (2011). The estimated equation thus

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[33] Since this "proxy" for historical trust values in 1500 AD is a generated regressor we will bootstrap our standard errors in those regressions.

becomes the following form:

$$
\begin{aligned}
Trust_{i,c} = &\; \alpha + \beta_1 HTR_{i,1500} + \beta_2 LHT_{i,1500} + \beta_3 COL_i + \gamma' \mathbf{LO}_{i,c} + \rho_1' \mathbf{LO}_{i,c} * LHT_{i,1500} \\
&+ \rho_2' \mathbf{LO}_{i,c} * COL_i + \rho_3' LHT_{i,1500} * COL_i + \rho_4' \mathbf{LO}_{i,c} * LHT_{i,1500} * COL_i \\
&+ \theta' \mathbf{X}_{i,c} + u_i
\end{aligned}
$$

$$(4)$$

Where we are mainly interested in the sign and significance of the coefficient of the three-way interaction term ρ_4. $LHT_{i,1500}$ is a dummy variable indicating countries with below median historical trust values. COL_i represents either a dummy variable for former European colonies according to Acemoglu et al. 2002 or for former European colonies with exogenous legal origin according to Klerman et al. (2011). This strategy should allow us to identify clear causal effects of the exogenous introduction of legal origins in countries with high and low ex-ante trust levels.

4.2.2. Results

Now we test the "First Aghion et al. Hypotheses" or the prediction that countries with a high trust level in 1500 AD had created another legal system than countries with low historical trust values. To identify if this is true we run IV probit estimations where we in the first stage regress the variables we use to construct the respective proxies on the present trust scores. In the second stage we regress this exogenous variance in the trust scores on dummies for French legal origin and British legal origin. We only include countries in the regression that have chosen their French or British legal origins endogenously. Because there are different opinions about for which countries exactly the legal origins are endogenous we repeat the IV probit estimations for three different sub-samples. In the first sub-sample all countries that are coded as former colonies by Acemoglu et al. (2002) are excluded from the sample, assuming that all countries that were no colonies adopt their legal origin voluntarily.

As mentioned in chapter three Klerman et al. (2011) remarked that the assumption that the legal system was exogenous for all colonies is probably not right. Especially the former Spanish and Portuguese colonies were already independent when the legal origins were fully developed and introduced in their home countries in the early 19th century. They therefore code for example the legal origin of Brazil as endogenous because it adopted French civil law shortly after becoming independent. When it was a colony it had uncodified law (Klerman et al. 2011). We therefore include all countries in our second sub-sample that were coded by Klerman et al. (2011) as having endogenous

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legal origin. In the third sub-sample we exclude also countries with a communistic past from the sample. As mentioned earlier they are very special with respect to their legal origins and we cannot insure that their legal origin is purely endogenous in every case.[34] Furthermore we re-estimate every equation with the alternative sample of trust scores and for every of the four historical trust proxies we have constructed. So, overall this leads to 48 regressions. These are shown in Table 7. The results are very clear. In 41 of the 48 regressions the trust coefficient is significant and exhibits the expected sign.

To be precise: In 23 of 24 regressions there is a negative relation between high historical trust scores and the probability that a country chooses French legal origin. In 19 of 24 regressions there is a positive relation between the historical trust scores and the probability that a country chooses British legal origin. The results do not differ significantly when we use the alternative sample of trust scores but as before the coefficients are in general a little bit smaller. The results are also quite robust when we change the variables in the first stage. We get the weakest result with the three variables of Bjørnskov (minimum temperature, monarchy dummy and pronoun-drop variable). This is what we expect because it perhaps is a sign that these variables are not fully exogenous. Consequently the estimated coefficients are the highest and always significant when we use the three variables with the highest degree of exogeneity (technological adaption in 1500, time since human settlement and time since Neolithic Revolution). In sum we think that these results provide clear evidence in favour of the "First Aghion et al. Hypothesis". High trust countries choose other institutions than low trust countries. Low trust countries are more likely to implement civil law whereas high trust countries are more likely to implement common law.

[Table 7 about here]

At last, we test whether the "Second Aghion et al. Hypothesis" holds empirically. To do this we will estimate equations (3) and (4).We do include only the share of Muslims and Catholics, the measure of ethnic fractionalization and the colony dummy in every regression. This is primarily to save some degrees of freedom what will be important because the sample size now will become smaller. Sometimes we include the post-communism dummy, a dummy for countries in Sub-Saharan Africa or the Gini coefficient

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[34] La Porta et al. (2008, p. 290) at least in the understanding of the author, suggest that legal origins are exogenous for all countries except the home countries of the respective tradition and some few countries like Turkey, Russia or Japan that choose their legal origin on a voluntary basis. This might be true but unfortunately we would end up then with around sixteen countries or so. But we cannot run a regression with such few countries. But a descriptive analysis of their historical trust scores suggests that the results of our regressions hold also for these countries and are probably even stronger.

as additional controls. The Sub-Saharan Africa dummy we include again because it can capture the various differences of these countries that are not due to the variables we are interested in. Additionally, five of the countries that are coded as having mixed legal origin are located in Sub-Saharan Africa. With the dummy included we can test whether some maybe occurring differences of the mixed legal origin countries are really due to the legal origins or due to some unobserved special characteristics of these Sub-Saharan Africa countries.[35]

As already mentioned, our strategy to identify the causal effect here is only to include countries in the sample for which the legal origin is exogenous. That means for these countries the introduction of legal origins is equivalent to an exogenous institutional change (or a treatment). Similar to the regressions before we construct three sub-samples. The first sub-sample marked the upper bound of countries with exogenous legal origin and results of the authors reading of La Porta et al. (2008). We exclude the mother countries of the legal origins (France, Germany, Austria and the United Kingdom) all Scandinavian countries (Denmark, Finland, Iceland, Norway and Sweden) the countries that according to La Porta et al. (2008) and Klerman et al. (2011) adopt their legal origin voluntarily (Japan, Russia, Thailand and Turkey) and the countries that were colonized in majority by the British settlers (New Zealand, USA and Australia). The second sub-sample comprises out of all colonies for which the legal origins were exogenous according to Klerman et al. (2011). At last, in the third sample all countries are included that are coded as former colonies by Acemoglu et al. (2002). At the beginning, we present the estimations using the two-way interaction terms(equation (2)). The results are presented in Table 8.[36]

Moreover, since the empirical trust literature traditionally suffers from outliers and influential observations (Berggren et al. 2008; Beugelsdijk and de Groot 2004) and our sample size now becomes much lower than before (sometimes only 30 observations) this could be a problem likely to arise. Another, related problem already discussed in section two is the possibility of measurement error. Additionally to the three countries with extremely high differences between the trust scores of our two samples (Thailand, Uruguay and Canada) the surprisingly high trust score of Saudi Arabia (around 53 %) could be a source of measurement error. This high trust score is extremely conspicuous because the literature as well as our own analysis suggests that Muslim countries are significantly less trusting than other countries. On the other hand, as well known in

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[35] With the selection of these variables we include all variables as controls in the regressions that found to be significant covariates of trust in the baseline regressions in Table 2.

[36] In all regressions countries with British legal origin (common law) are the base-group to which we compare.

the development and institutions literature (Dobler 2011) the so called "oil states" are systematically different from all other countries and often distorts empirical results e.g. in regressions of GDP per capita on institution indices. Therefore we will investigate what happens if we drop Saudi Arabia —-as China or the Iran— from the data set. Secondly, we will also present a regression where Thailand, Uruguay and Canada are removed from the sample.

To reveal potential distortions arising through outliers in the table below we follow Rodrik et al. (2004) in computing a DFITS statistics developed by Belsey et al. (1980). This test statistics can be used to detect influential observation that have a huge impact on the coefficient estimates (i.e. a high leverage) or a large residual. Belsely et al. (1980) suggest that observations with a DFITS value above the cutoff of $|DFITS_j| > 2\sqrt{k \setminus N}$ can be considered as influential observations (with k indicating the number of regressors and N the denoting the number of observables in the sample). In addition, we look at countries in the critical area of a leverage-versus-squared residual plot to graphically detect potentially influential observations. After doing this in a first step we will drop the three countries with the highest DFITS value (when they are above the cutoff) and the highest leverage according to the graphical examination with the leverage-versus-squared–residual plots. In a second step we will drop all countries with a DFITS statistics above the critical value. At last, we will exclude Saudi Arabia and look how the estimates change and, of course, estimate our specifications for different combinations of trust score samples and historical trust proxies.

If we look at the regression results in Table 8 we can conclude that there is much evidence that confirms the "Second Aghion et al. Hypothesis". To see this we have to look for example at the coefficients for the British legal origin and French legal origin interaction terms. In ten of the 16 regressions in both Panels of Table 8 these are included simultaneously enabling a direct comparison between both. If the "Second Aghion et al. Hypothesis" is true we should expect that the coefficient of the interaction term of British legal origin and low historical trust is negative and significant. Conversely, we expect a positive significant sign if the British legal origin dummy is interacted with a dummy indicating high historical trust. That is, the exogenous introduction of common law in a country with low initial trust should be associated with a decline in trust relative to a country with high ex-ante trust where common law was implemented.

In a high trust country it should be associated with at least no decline or —-due to virtuous cycle— an increase in trust. In nine of ten cases the coefficient of the British legal origin interaction term has the right sign (negative when interacted with low trust and positive or non-negative when interacted with high trust). In one case (column (1)

Panel B), the interaction term for high historical trust is negative but not significant so this is no real contradiction of the "Second Aghion et al. Hypothesis". Additionally, in seven of the ten regressions where the British legal origin dummy is included directly it is at least marginally significant at 10 % level.

[Table 8 about here]

And the case where it is not significant also the most other variables and interaction terms are not significant probably because of the low sample size in the sub-sample of colonies with surely exogenous legal origin according to Klerman et al. (2011). This low sample size leads to the problem that often there are only few observations for which the interaction term is one. For this sub-sample of countries we should take the results of the regression with the alternative trust proxy therefore more serious because the sample size is somewhat higher.

Another possibility is to look at the interaction terms of French legal origin and high/low historical trust. Of course, for those we should expect the reverse than for the British legal origin dummy, i.e. if one introduces civil law in a country with initially high trust the trust should decline. This is the case in nine of the 16 regressions where the interaction term for French legal origin countries is included. So, the results are somewhat unclear concerning that. But the fact that in five of the six cases where the coefficient is significant it shows the right sign nevertheless indicates that our conjectures could be true. And again the cases that contradict the "Second Aghion et al. Hypothesis" (like the regression in Panel B column (2)) stem from regressions done with the Klerman et al. (2011) sub-sample and the original trust proxy. So again, a low sample size could drive these results. In the one case when the interaction term is significant and shows the wrong sign, (Panel A column (3)) the result seems to be caused by the exclusion of Saudi Arabia, Ghana and Morocco. If we exclude all seven countries with a DFITS value above the threshold and add a dummy for the Sub-Saharan African countries the interaction term loses its significance again.

In general, the results for this sub-sample at least for the French legal origin interaction term are relatively sensible to the inclusion or exclusion of different controls and countries. The significant and positive coefficient of the German legal origin dummy interaction term in regressions (1) and (3) in Panel A should not be taken seriously because they result from only a few countries for which the interaction term is one in this regression. Again, the significant negative coefficient in the regression in column (7) and (8) are much more reliable (because they based on a much larger sample) and in

line with our expectations and the "Second Aghion et al. Hypothesis" since the German legal tradition is a modified version of French civil law.

These results are in general not sensitive to the inclusion of the robust covariates of trust that is the Gini coefficient, ethnic fractionalization, the shares of Muslims and Catholics and dummies for the post-communistic countries, countries in Sub-Saharan Africa and former European colonies. They are unaffected when we interact the legal origin dummies with a dummies indicating above average instead of above median historical trust (Panel A columns (7) and (8)) and —-to a more limited extent— also when we change the used trust score sample and/ or the used historical trust proxy. Furthermore, the main results seem also hold when we exclude the post-communistic transition countries from the sample instead of simply controlling for them (column (2) and (5) and (6) in Panel A). In column (5) the interaction term of British legal origin stays negative and significant as expected after excluding the post-communistic countries, controlling for the specialities of Sub-Saharan Africa and deleting the countries with the three highest DFITS values in the regression sample (Saudi Arabia, Ghana and Greece). Of course, the French legal origin interaction term is insignificant and exhibit the wrong sign but compared to column (2) where those three countries are not excluded the coefficient is a little bit less negative. The sign of the French legal origin interaction term becomes the right (positive) sign when all seven countries with DFITS values above the threshold are excluded. The fact that almost everything becomes insignificant in this case is maybe a sign that those seven countries are significant drivers of the estimated effects.

However, it also could be a result of too less variance in the interaction terms caused by the considerably reduced sample size. In principle, one has to be careful about simply dropping observations with high leverage or deleting countries that are identified as outliers. If there are no hints that point to measurement error or if there is no good story why a particular influential observation or a particular outlier is likely to be different from all other observations one should not drop the variables. It is therefore not obvious why we for instance should drop Uruguay or Greece form the data simply because they are mechanically influential according to their DFITS statistics (in column (8)). These observations can maybe tell us something important about the relation between the dependent and independent variables.

Saudi Arabia on the other hand, seems to be an outlier/ influential observation in almost every regression with the original trust scores sample. It always has far the highest DFITS statistics. Dropping Saudi Arabia from the sample alone as in column (8) seems to have considerable consequences since some variables switch from being insignificant to being significant at 1 % percent level (as the French legal origin dummy

in column (8)). However, our main conclusion is unaffected by the exclusion of Saudi Arabia, because the coefficient of the interaction term of French legal origin and low historical trust becomes even higher after Saudi Arabia is dropped (increases from -0.156 to -0.1792). The same holds true when in column (6) of Panel B Georgia, Mongolia and South Korea are dropped, or when in column (4) of Panel B Mongolia, South Korea and Trinidad and Tobago are excluded from the regression sample. It does not hold, however for the second regression in Panel B, but after deleting Mongolia, Morocco and South Korea the coefficient of the British legal origin interaction term shows at least the right instead of the wrong sign. Finally, if the three countries with hugest differences in the trust scores between both samples (Thailand, Uruguay and Canada) are removed (Panel B column (8)) the coefficients, like e.g. that of the British legal origin interaction dummy (16.45 and 18.41) do virtually not change. At most, these changes strengthen our propositions too. Overall, our investigation suggests that the trust score of Saudi Arabia is not the correct one but reflecting intentional or unintentional measurement error. Saudi Arabia therefore should be excluded when one works with trust scores or at least one should has a careful look on it.

In general, the impression is that the trust scores from the alternative trust score sample are more reliable and that the results of these regressions are less sensitive to outliers.[37] Removing outliers seems to strengthen the results towards our hypotheses. Concerning the results of the different sub-samples there is a trade-off. The larger two sub-samples clearly yield more robust and significant results. But on the other hand, it is quite likely that they contain some countries for which the legal origin at least to some extent was not fully exogenous so the results are maybe biased. Nevertheless, the vast majority of the regression seems to confirm what we had supposed before in the theoretical section.

As a last thing, we now turn to the results when using three-way interaction terms (estimations of equation (4))The coefficient ρ_4 is shown for the French and British legal origin countries on which we will focus here in Table 9. In the first estimation we the Klerman et al. (2011) sub-sample of colonies with exogenous legal origins. For this sub-sample we get results that clearly confirm the "Second Aghion et al. Hypothesis". The coefficient of the British legal origin three-way interaction term is negative and significant and the coefficient of the French legal origin interaction term is positive and significant. Even stronger results we get, when focusing on the French legal origin

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[37] This is e.g. the impression from the inspection of the leverage-versus-squared residual plots of those regressions. Additionally, the score for Thailand for example (17.7 %) is much more probable than that of the other sample (54.16 %).

countries only (column (2)) and when we add ethnic fractionalization and latitude to the control variables.

[Table 9 about here]

The coefficient of the three way interaction term now has more than doubled and is significant at 1 % level. So, our propositions seem to hold also for the "problematic" Klerman et al. lower bound sub-sample —at least in this setting. If we switch former to all colonies (columns (3) – (5)) and repeat the regression of column (2) but inter-acting again both the British and the French legal origin dummies the results are again less clear. The British legal origin interaction term is negative and at least marginally significant while his French counterpart is insignificant and shows up the wrong sign. Both coefficients are increased when we additionally control for the time since first hu-man settlement, the population density in 1500 AD and again ethnic fractionalization. However, the French legal origin interaction term is still not significant. In the last regression (column (5) we once more exclude the post-communistic countries from the sample, control also for the GDP per capita in addition to ethnic fractionalization and use the alternative sample of trust scores. The result is that now the French legal origin interaction term when included alone enters significantly and with a positive sign. So, our findings are robust to quite different set of controls, samples and trust measures although the strength of the evidence inarguably differs among the various settings.

5. Conclusion

This paper could make at least three contributions to the scientific debate about trust and institutions:

- It provides evidence that trust and legal origins are connected via their role in shaping the beliefs of people. It also shows that legal origins only matter in countries with rule of law, low corruption or a functioning and fully developed democracy. When institutions cannot work in the way assumed by the legal origins theory or the institutional environment in a country is very weak and not developed legal origins seem not to matter. This is contradictory to what for example La Porta et al. (2008) conclude.

- It discovered some preliminary evidence about the very long-run and stable deter-minants of trust. These "deep roots" maybe can be traced back thousands of years ago till the human species began to settle the entire planet. This give rise for var-ious future research topics and could perhaps be very promising for the future use

of instrumental variables strategies as well as the discovering of the consequences of trust and persistent beliefs for long run development.

- It develops Hypotheses about the complex co-evolution and causal relationship between generalized trust and the institutional continuum in the course of development. Here for the first time the author is aware it integrates insights from experimental and neuroeconomic trust research into the canonical framework what seems to be a fruitful achievement. It then tries to empirically validate some of the implications of the theoretical model, namely the so called "Aghion et al. Hypotheses". It could confirm the "First Aghion et al. Hypothesis" in particular that countries with high historical trust levels developed other legal institutions than countries with low historical trust. For the "Second Aghion et al. Hypotheses", namely that the introduction of a certain legal system in a country had other consequences for trust depending on the initial level of trust it founds at least much confirming evidence. When in future an even larger sample of trust scores will hopefully be available the results probably will become as clear as for the "First Aghion et al. Hypothesis".

Additionally, it shows that the extraordinary high trust in the Scandinavian countries and the very low levels of trust in the Sub-Saharan mixed legal origin countries should maybe analysed in more detail. The very special institutional environment in the Scandinavian countries with less entry regulation a relatively high acceptance of case law but much bureaucracy and labour market regulations obviously seems to be very favourable for the emergence and sustaining of trust. To explore why exactly this is the case is surely worthwhile. At last, a natural extension of this work would be to study also the effects of trust on long run economic development via its impact on legal origins or institutions in general. This could maybe also include a more thorough analysis of the impact of colonialism on trust and current economic prosperity in the former colonies.

References

ACEMOGLU, D., JOHNSON, S., ROBINSON, J.A. (2002): Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution*. *The Quarterly journal of economics* 117(4), pp. 1231–1294.

AGHION, P., ALGAN, Y., CAHUC, P., SHLEIFER, A. (2010): Regulation and Distrust. *Quarterly Journal of Economics* 125 (3), pp. 1015 –1049.

AGHION, P., ALGAN, Y., CAHUC, P. (2011): Civil Society and the State: The Interplay between Cooperation and Minimum Wage Regulation. *Journal of the European Economic Association* 9(1), pp. 3–42.

AHLERUP, P., OLSSON, O. (2012): The Roots of Ethnic Diversity. *Journal of Economic Growth* 17(2).

AHLERUP, P., OLSSON, O., YANAGIZAWA, D. (2009): Social Capital vs Institutions in the Growth Process. *European Journal of Political Economy* 25(1), pp. 1–14.

ALESINA, A., ANGELETOS, G.M. (2005a): Corruption, Inequality, and Fairness. *Journal of Monetary Economics* 52(7), pp. 1227–1244.

ALESINA, A., ANGELETOS, G.M. (2005b): Fairness and Redistribution. *American Economic Review* 95(3), pp. 960–980.

ALESINA, A., LA FERRARA, E. (2002): Who Trusts Others? *Journal of Public Economics* 85(2), pp. 207–234.

ALESINA, A., DEVLEESCHAUWER, A., EASTERLY, W., KURLAT, S., WACZIARG, R. (2003): Fractionalization. *Journal of Economic Growth* 8(2), pp. 155–194. Dataset downloaded from: `http://www.anderson.ucla.edu/faculty_pages/romain.wacziarg/papersum.html`; accessed at October 23th, 2011.

ALGAN, Y., CAHUC, P. (2010): Inherited Trust and Growth. *American Economic Review* 100(5), pp. 2060–2092.

ASHRAF, Q., GALOR, O. (2011a): Dynamics and Stagnation in the Malthusian Epoch. *The American Economic Review* 101(5), pp. 2003–2041. Dataset downloaded from: `http://www.aeaweb.org/aer/data/aug2011/20081371_data.zip`; accessed at May 3rd, 2012.

ASHRAF, Q., GALOR, O. (2011b): The "Out of Africa" Hypothesis, Human Genetic Diversity, and Comparative Economic Development. *National Bureau of Economic Research (NBER) Working Paper No. 17216.*

ASHRAF, Q., ÖZAK, Ö., GALOR, O. (2010): Isolation and Development. *Journal of the European Economic Association* 8(2-3), pp. 401–412.

AXELROD, R., HAMILTON, W.D. (1981): The Evolution of Cooperation. *Science* 211(4489), pp. 1390–1396.

BARRO, R.J., LEE, J.W. (2010): A New Data Set of Educational Attainment in the World, 1950–2010. *NBER Working Paper No. 15902*. Data downloaded from: `http://www.barrolee.com/data/wholepop.htm`; accessed at October 22th, 2011.

BELLEMARE, C., KRÖGER, S. (2007): On Representative Social Capital. *European Economic Review* 51(1), pp. 183–202.

BELSEY, D. A., KUHN, E., E., Welsch R. (1980): *Regression Diagnostics*. New York, John Wiley and Sons.

BERG, J., DICKHAUT, J., McCABE, K. (1995): Trust, Reciprocity, and Social History. *Games and Economic Behavior* 10(1), pp. 122–142.

BERGGREN, N., JORDAHL, H. (2006): Free to Trust: Economic Freedom and Social Capital. *Kyklos* 59(2), pp. 141–169.

BERGGREN, N., ELINDER, M., JORDAHL, H. (2008): Trust and Growth: A Shaky Relationship. *Empirical Economics* 35(2), pp. 251–274.

BERGH, A., BJØRNSKOV, C. (2011): Historical Trust Levels Predict the Current Size of the Welfare State. *Kyklos* 64(1), pp. 1–19.

BEUGELSDIJK, S., DE GROOT, H.L.F., VAN SCHAIK, A.B.T.M. (2004): Trust and Economic Growth: A Robustness Analysis. *Oxford Economic Papers* 56(1), pp. 118–134.

BJØRNSKOV, C. (2007): Determinants of Generalized Trust: A Cross-Country Comparison. *Public Choice* 130(1), pp. 1–21.

BJØRNSKOV, C. (2008): Social Trust and Fractionalization: A Possible Reinterpretation. *European Sociological Review* 24(3), pp. 271–283.

BJØRNSKOV, C. (2009a): How Does Social Trust Affect Economic Growth? *Aarhus Economics Working Paper No. 06-2*.

BJØRNSKOV, C. (2009b): Social Trust and the Growth of Schooling. *Economics of Education Review* 28(2), pp. 249–257.

BJØRNSKOV, C. (2010): How Does Social Trust Lead to Better Governance? An Attempt to Separate Electoral and Bureaucratic Mechanisms. *Public Choice* 144(1), pp. 323–346.

BJØRNSKOV, C. (2011): Historical Correlates of Social Trust. *Mimeo, Aarhus University*.

BJØRNSKOV, C., MÉON, P.G. (2010): The Productivity of Trust. *Centre Emile Bernheim (CEB) Working Papers No. 10/042.*

BOCKSTETTE, V., CHANDA, A., PUTTERMAN, L. (2002): States and Markets: The Advantage of an Early Start. *Journal of Economic Growth* 7(4), pp. 347–369. Data Downloaded from: `http : / / www . econ . brown . edu / fac / louis _ putterman / statehist_v3.xls`; accessed at May 3rd, 2012.

BOHNET, I., ZECKHAUSER, R. (2004): Trust, Risk and Betrayal. *Journal of Economic Behavior & Organization* 55(4), pp. 467–484.

BOTERO, J.C., DJANKOV, S., LA PORTA, R., SILANES, F. Lopez-de, SHLEIFER, A. (2004): The Regulation of Labor. *The Quarterly Journal of Economics* 119(4), pp. 1339–1382.

CAPRA, C.M., LANIER, K., MEER, S. (2008): Attitudinal and Behavioral Measures of Trust: A New Comparison. *Emory University Department of Economics - Working Paper Series.*

CARLIN, B.I., DOROBANTU, F., VISWANATHAN, S. (2009): Public Trust, the Law, and Financial Investment. *Journal of Financial Economics* 92(3), pp. 321–341.

CENTRAL INTELLIGENCE AGENCY (CIA) (2011): *CIA World Factbook 2011.* Downloaded from: https: www.cia.gov/library/publications/download/; accessed at October 22th, 2011.

COLEMAN, J.S. (1988): Social Capital in the Creation of Human Capital. *American Journal of Sociology* 94, pp. 95–120.

COMIN, D., EASTERLY, W., GONG, E. (2010): Was the Wealth of Nations Determined in 1000 BC? *American Economic Journal. Macroeconomics* 2(3), pp. 65–97.

COX, J.C., OSTROM, E., WALKER, J.M., COLEMAN, E., HOLAHAN, R., SCHOON, M., STEED, B. (2007): Trust in Private and Common Property Experiments. *Southern Economic Journal* 76(4), pp. 957 –975.

DEARMON, J., GRIER, K. (2009): Trust and Development. *Journal of Economic Behavior & Organization* 71(2), pp. 210–220.

D'HERNONCOURT, J., MÉON, P.G. (2011): The Not So Dark Side of Trust: Does Trust Increase the Size of the Shadow Economy? *Journal of Economic Behavior & Organization* 81(1), pp. 97 –121.

DIAMOND, J. (2007): *Arm und Reich. Die Schicksale menschlicher Gesellschaften.* Frankfurt am Main, FIscher Taschenbuch Verlag.

DINCER, O.C., USLANER, E.M. (2010): Trust and Growth. *Public Choice* 142(1), pp. 59–67.

DJANKOV, S., LA PORTA, R., SILANES, F. Lopez-de, SHLEIFER, A. (2002): The Regulation of Entry. *The Quarterly Journal of Economics* 117(1), pp. 1–37.

DJANKOV, S., GLAESER, E., LA PORTA, R., SILANES, F. Lopez-de, SHLEIFER, A. (2003): The New Comparative Economics. *Journal of Comparative Economics* 31(4), pp. 595–619.

DOBLER, C. (2011): *The Impact of Formal and Informal Institutions on Economic Growth. A Case Study on the MENA Region.* Hohenheimer Volkswirtschaftliche Schriften Band 65. Frankfurt am Main, Peter Lang Verlag.

DURANTE, R. (2009): Risk, Cooperation and the Economic Origins of Social Trust: An Empirical Investigation. *Job Market Paper, Brown University.*

DURHAM, W.H. (1992): *Coevolution: Genes, Culture, and Human Diversity.* Stanford, Stanford University Press.

EASTERLY, W., LEVINE, R. (1997): Africa's Growth Tragedy: Policies and Ethnic Divisions. *The Quarterly Journal of Economics* 112(4), pp. 1203–1250.

ECKEL, C.C., WILSON, R.K. (2004): Is Trust a Risky Decision? *Journal of Economic Behavior & Organization* 55(4), pp. 447–465.

ENGERMAN, S.L., SOKOLOFF, K.L. (1994): Factor Endowments: Institutions, and Differential Paths of Growth Among New World Economies: A View From Economic Historians of the United States. *NBER Working Paper Series on Historical Factors in Long Run Growth No.66.*

FEHR, E., FISCHBACHER, U., KOSFELD, M. (2005): Neuroeconomic Foundations of Trust and Social Preferences: Initial Evidence. *American Economic Review Papers and Proceedings* 95(2), pp. 346–351.

GÄCHTER, S., HERRMANN, B., THÖNI, C. (2004): Trust, Voluntary Cooperation, and Socio-Economic Background: Survey and Experimental Evidence. *Journal of Economic Behavior & Organization* 55(4), pp. 505–531.

GALOR, O. (2011): *Unified Growth Theory.* Princeton, Princeton University Press.

GALOR, O., MOAV, O. (2002): Natural Selection and the Origin of Economic Growth. *The Quarterly Journal of Economics* 117(4), pp. 1133–1191.

GLAESER, E.L., SHLEIFER, A. (2002): Legal Origins. *Quarterly Journal of Economics*, pp. 1193–1229.

GLAESER, E.L., LAIBSON, D.I., SCHEINKMAN, J.A., SOUTTER, C.L. (2000): Measuring Trust. *The Quarterly Journal of Economics* 115(3), pp. 811–846.

GLAESER, E.L., LA PORTA, R., SILANES, F. Lopez-de, SHLEIFER, A. (2004): Do Institutions Cause Growth? *Journal of Economic Growth* 9(3), pp. 271–303.

GORODNICHENKO, Y., ROLAND, G. (2010): Culture, Institutions and the Wealth of Nations. *NBER Working Paper No. 16368.*

GUINNANE, T.W. (2005): Trust: A Concept too Many. *Yale University Economic Growth Center Discussion Paper No. 907.*

GUISO, L., SAPIENZA, P., ZINGALES, L. (2008a): Alfred Marshall Lecture Social Capital as Good Culture. *Journal of the European Economic Association* 6(2-3), pp. 295–320.

GUISO, L., SAPIENZA, P., ZINGALES, L. (2008b): Long Term Persistence. *European University Institute Working Paper ECO, No. 2008/30.*

HALL, R.E., JONES, C.I. (1999): Why Do Some Countries Produce So Much More Output Per Worker Than Others? *The Quarterly Journal of Economics* 114(1), pp. 83–116. Dataset downloaded from: `http : / / www . stanford . edu / ~chadj / HallJones400.asc`; accessed at May 3rd, 2012.

HEINEMANN, F., TANZ, B. (2008): The Impact of Trust on Reforms. *Journal of Economic Policy Reform* 11(3), pp. 173–185.

HELLIWELL, J.F. (1996): Economic Growth and Social Capital in Asia. *NBER Working Paper, No. 5470.*

HESTON, A., SUMMERS, R., ATEN, B. (2011): Penn World Table Version 7.0. *Center for International Comparisons of Production, Income and Prices, University of Pennsylvania.* Data Downloaded from: `http://pwt.econ.upenn.edu/php_site/pwt_index.php`; accessed at October 23th, 2011.

HIBBS, D.A., OLSSON, O. (2004): Geography, Biogeography, and Why Some Countries are Rich and Others Are Poor. *Proceedings of the National Academy of Sciences of the United States of America* 101(10), pp. 3715–3720.

HOLM, H.J., DANIELSON, A. (2005): Tropic Trust versus Nordic Trust: Experimental Evidence from Tanzania and Sweden. *The Economic Journal* 115(503), pp. 505–532.

KARLAN, D.S. (2005): Using Experimental Economics to Measure Social Capital and Predict Financial Decisions. *American Economic Review* 95(5), pp. 1688–1699.

KASHIMA, E.S., KASHIMA, Y. (1998): Culture and Language. *Journal of Cross-Cultural Psychology* 29(3), pp. 461–486.

KAUFMAN, D., KRAAY, A., MASTRUZZI, M. (2010): The Worldwide Governance Indicators: A Summary of Methodology, Data and Analytical Issues. *World Bank Policy Research Working Paper, No. 5430.* Dataset downloaded from: `http://info.worldbank.org/governance/wgi/index.asp`; accessed at October 22th, 2011.

KLERMAN, D.M., MAHONEY, P.G., SPAMANN, H., WEINSTEIN, M.I. (2011): Legal Origin or Colonial History? *Journal of Legal Analysis* 3(2), pp. 379–409. Dataset downloaded from: `http://jla.oxfordjournals.org/content/suppl/2011/10/26/lar002.DC1`; accessed at November 1st, 2011.

KNACK, S., KEEFER, P. (1997): Does Social Capital Have an Economic Payoff? A Cross-Country Investigation. *The Quarterly Journal of Economics* 112(4), pp. 1251–1288.

KOSFELD, M., HEINRICHS, M., ZAK, P.J., FISCHBACHER, U., FEHR, E. (2005): Oxytocin Increases Trust in Humans. *Nature* 435(7042), pp. 673–676.

LA PORTA, R., SILANES, F. Lopez-de, SHLEIFER, A., VISHNY, R. (1999): The Quality of Government. *Journal of Law, Economics, and Organization* 15(1), pp. 222–279. Dataset Downloaded from: `http://www.economics.harvard.edu/faculty/shleifer/paper`; accessed at October 22th, 2011.

LA PORTA, R., SILANES, F. López-de, POP-ELECHES, C., SHLEIFER, A. (2004): Judicial Checks and Balances. *Journal of Political Economy* 112(2), pp. 445–470.

LA PORTA, R., SILANES, F. Lopez-de, SHLEIFER, A. (2008): Economic Consequences of Legal Origins. *Journal of economic literature* 46(2), pp. 285 –332. Dataset downloaded from: `http://www.economics.harvard.edu/faculty/shleifer/paper`; accessed at January 23th, 2011.

LABONNE, J., CHASE, R.S. (2010): A Road to Trust. *Journal of Economic Behavior & Organization* 74(3), pp. 253–261.

LANGBEIN, L., KNACK, S. (2010): The Worldwide Governance Indicators: Six, One, or None? *The Journal of Development Studies* 46(2), pp. 350–370.

LUHMANN, Niklas (2000): *Vertrauen: Ein Mechanismus der Reduktion sozialer Komplexität.* Vol. 2185. Stuttgart, Lucius & Lucius.

MCCABE, K., HOUSER, D., RYAN, L., SMITH, V., TROUARD, T. (2001): A Functional Imaging Study of Cooperation in Two-Person Reciprocal Exchange. *Proceedings of the National Academy of Sciences* 98(20), p. 11832.

NANNESTAD, P. (2008): What Have We Learned About Generalized Trust, If Anything? *Annual Review of Political Science* 11, pp. 413–436.

NUNN, N., WANTCHEKON, L. (2011): The Slave Trade and the Origins of Mistrust in Africa. *American Economic Review* 101(7), pp. 3221–3252.

OLSSON, O. (2009): On the Democratic Legacy of Colonialism. *Journal of Comparative Economics* 37(4), pp. 534–551.

OLSSON, O., HIBBS, D.A. (2005): Biogeography and Long-Run Economic Development. *European Economic Review* 49(4), pp. 909–938.

OSTERHAMMEL, J. (2006): *Kolonialismus. Geschichte, Formen, Folgen.* Mnchen, C.H. Beck.

ÖZCAN, B., BJØRNSKOV, C. (2011): Social Trust and Human Development. *Journal of Socio-Economics* 40(6), pp. 753 –584.

PARKER, Philip M. (1997): *National Cultures of the World: A Statistical Reference.* Greenwood Press. Data downloaded from: `http : / / www . insead . edu / facultyresearch/faculty/personal/pparker/`; accessed at October 23th 2011.

PIKETTY, T. (1995): Social Mobility and Redistributive Politics. *The Quarterly Journal of Economics* 110(3), pp. 551–584.

PUTTERMAN, L. (2008): Agriculture, Diffusion and Development: Ripple Effects of the Neolithic Revolution. *Economica* 75(300), pp. 729–748. Data downloaded from: `http : / / www . econ . brown . edu / fac / louis _ putterman / Agricultural % 20Transition%20Data.xls`; accessed at May 3rd, 2012.

RODRIK, D., SUBRAMANIAN, A., TREBBI, F. (2004): Institutions Rule: The Primacy of Institutions Over Geography and Integration in Economic Development. *Journal of Economic Growth* 9(2), pp. 131–165.

ROTH, F. (2009): Does too Much Trust Hamper Economic Growth? *Kyklos* 62(1), pp. 103–128.

RUBINSTEIN, W.D. (2004): *Genocide: A History*. Harlow, Pearson Education.

SACHS, J.D. (2003): Institutions Don't Rule: Direct Effects of Geography on Per Capita Income. *NBER Working Paper No. 9490*. Dataset downloaded from: `http://www.earth.columbia.edu/articles/view/1932`; accessed at October 21th, 2011.

SAPIENZA, P., TOLDRA, A., ZINGALES, L. (2010): Understanding Trust. *Mimeo*. Downloaded from: `http://www.kellogg.northwestern.edu/faculty/sapienza/htm/Understandingtrust.pdf`; accessed at June 11th 2011.

SCHARLEMANN, J.P.W., ECKEL, C.C., KACELNIK, A., WILSON, R.K. (2001): The Value of a Smile: Game Theory With a Human Face. *Journal of Economic Psychology* 22(5), pp. 617–640.

STOCK, J., YOGO, M. (2005): "Testing for Weak Instruments in Linear IV Regressions". In: ANDREWS, D.W.K. (ed.). *Identification and Inference for Econometric Models*. New York, Cambridge University Press, pp. 80 –108.

SUTTER, M., KOCHER, M.G. (2007): Trust and Trustworthiness Across Different Age Groups. *Games and Economic Behavior* 59(2), pp. 364–382.

TABELLINI, G. (2008a): Presidential Address Institutions and Culture. *Journal of the European Economic Association* 6(2-3), pp. 255–294.

TABELLINI, G. (2008b): The Scope of Cooperation: Values and incentives. *The Quarterly Journal of Economics* 123(3), pp. 905–950.

THE WORLD BANK (2011): *World Governance Indicators 2011*. Washington. Database downloaded from: `http://data.worldbank.org/data-catalog/world-development-indicators`; accessed at October 23th, 2011.

USLANER, E.M. (2008): Where You Stand Depends Upon Where Your Grandparents Sat. *Public Opinion Quarterly* 72(4), pp. 725–740.

WHITELEY, P.F. (2000): Economic Growth and Social Capital. *Political Studies* 48(3), pp. 443–466.

WHORF, B.L. (1956): *Language, Thought and Reality.* Cambrigde, MA, MIT University Press.

WOOLCOCK, M. (1998): Social Capital and Economic Development: Toward a Theoretical Synthesis and Policy Framework. *Theory and Society* 27(2), pp. 151–208.

ZAK, P.J., FAKHAR, A. (2006): Neuroactive Hormones and Interpersonal Trust: International Evidence. *Economics & Human Biology* 4(3), pp. 412–429.

ZAK, P.J., KNACK, S. (2001): Trust and Growth. *The Economic Journal* 111(470), pp. 295–321.

ZWEIGART, K., KTZ, H. (1998): *An Introduction to Comparative Law.* Oxford and New York, Clarendon Press.

5.1. Internet Sources

Afrobarometer Online Data Analysis Tool: `http://www.jdsurvey.net/afro/Analize.jsp`; accessed at October 23th, 2011.

East-Asia Barometer Online Data Analysis Tool: `http://www.jdsurvey.net/eab/Analize.jsp`; accessed at October 23th, 2011.

Latinobarometer Online Data Analysis Tool: `http://www.latinobarometro.org/latino/LATAnalize.jsp`; accessed at October 23th, 2011.

LEWIS, P.M. (Ed.) (2009). Ethnologue: Languages of the World. SIL International, Dallas, Texas. Online Version: `http://www.ethnologue.com. DataforParaguaydownloadedfrom:http://www.ethnologue.com/show_country. asp?name=PY`; accessed at December 17th, 2011.

Polity IV Dataset: Downloaded from: `http://www.systemicpeace.org/inscr/inscr. htm`; accessed at October 23th, 2011.

WORLD VALUES SURVEY ASSOCIATION (2009). World Values Survey 1981 – 2008. Official Aggregate v.20090901. Downloaded from: `http://www.wvsevsdb.com/wvs/WVSData.jsp?Idioma=I`; downloaded at October 22th, 2011. World Values Survey Online Data Analysis Tool: `http://www.wvsevsdb.com/wvs/WVSAnalizeStudy.jsp; accessedatOctober23th,2011.`

Table 1: The Historical Trust Proxies

Dep. Var.	Trust				Trust alternative			
	Used Proxies		Robustness Proxies		Used Proxies		Robustness Proxies	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Latitude (Abs)		0.187**				0.00186***		
		(0.0739)				(0.000693)		
Mintemp				-0.193				-0.00248**
				(0.118)				(0.00111)
Monarchy	15.57***			15.65***	0.125***			0.125***
	(4.115)			(3.753)	(0.0423)			(0.0353)
Pop. Dens. 1500		0.232**				0.00261**		
		(0.111)				(0.00111)		
Pronoun-Drop	12.01***	7.962***		7.473***	0.108***	0.0633**		0.0615**
	(3.484)	(3.081)		(2.762)	(0.0315)	(0.0280)		(0.0260)
TA 1500	8.781**		37.72***		0.0742**		0.318***	
	(3.410)		(6.952)		(0.0323)		(0.0655)	
Ln(Time Settlement)			-4.469***				-0.0479***	
			(1.248)				(0.0120)	
Time since Neo. Rev.			-0.00422***				-3.61e-05***	
			(0.00105)				(1.02e-05)	
Obs.	80	106	68	114	80	106	68	114
R^2	0.519	0.301	0.412	0.355	0.422	0.317	0.400	0.306
Chi^2	82.66	33.95	38.31	48.79	45.72	33.86	31.44	33.02

Notes. Bootstrapped Standard errors (2000 replications) are in parenthesis. Coefficient is statistically different from zero at the ***1 %, **5 % and *10 % level. Every regression contains a constant not reported here.

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Table 2: Trust and Legal Origins - Baseline Regressions

Dep. Var.					Trust					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
French Legal Origin	1.666	1.089	2.147	1.265	0.533	2.102	2.264	0.157	0.0948	1.589
	(2.900)	(2.941)	(3.359)	(2.941)	(2.822)	(2.634)	(3.634)	(3.115)	(3.153)	(2.996)
Mixed Legal Origin	-4.437	-4.643	-3.884	-5.131	-5.324	-5.939*	-4.049	-6.468	-6.392	-1.159
	(3.742)	(3.926)	(4.133)	(3.832)	(3.619)	(3.411)	(4.191)	(3.897)	(3.944)	(4.040)
German Legal Origin	4.705	3.998	5.479	4.294	2.355	5.418	4.093	2.941	2.930	2.466
	(3.808)	(3.872)	(4.232)	(3.843)	(3.756)	(3.459)	(3.913)	(4.053)	(4.079)	(3.747)
Scand. Legal Origin	12.12	11.57	14.37	12.51	10.53	9.977	13.31*	10.68	10.70	7.444
	(8.044)	(8.290)	(8.656)	(8.067)	(7.771)	(7.314)	(7.997)	(8.042)	(8.091)	(7.390)
Post-communistic	-11.64***	-11.10***	-12.58***	-12.10***	-15.51***	-9.201***	-10.46***	-10.89***	-10.69**	-9.433**
	(3.182)	(3.222)	(3.893)	(3.230)	(3.336)	(2.933)	(2.542)	(4.360)	(4.525)	(4.170)
Sub-Saharan-Africa	-13.48***	-12.45***	-12.34***	-11.48***	-9.261***	-10.56***	-7.850**	-7.228	-7.205	-8.243*
	(2.763)	(3.174)	(4.131)	(3.607)	(3.024)	(2.582)	(3.567)	(4.574)	(4.603)	(4.168)
Muslims	-0.0699*	-0.0785*	-0.0527	-0.0624	-0.0705*	-0.0835**	-0.0548	-0.107**	-0.107**	-0.144***
	(0.0411)	(0.0426)	(0.0494)	(0.0421)	(0.0396)	(0.0374)	(0.0516)	(0.0467)	(0.0470)	(0.0458)
Protestants	0.147*	0.143*	0.114	0.142*	0.0601	0.119	0.110	0.0393	0.0391	0.0974
	(0.0826)	(0.0833)	(0.0917)	(0.0829)	(0.0849)	(0.0752)	(0.0837)	(0.0866)	(0.0871)	(0.0811)
Catholics	-0.144***	-0.141***	-0.141***	-0.140***	-0.139***	-0.134***	-0.145***	-0.126***	-0.126***	-0.124***
	(0.0360)	(0.0367)	(0.0403)	(0.0364)	(0.0347)	(0.0327)	(0.0357)	(0.0363)	(0.0366)	(0.0333)
Ln (GDP per capita)							2.350**	0.779	0.847	1.925
							(1.096)	(1.602)	(1.656)	(1.577)
Ethnic.Fract.		-2.606						1.131	1.117	8.708*
		(4.995)						(5.270)	(5.303)	(4.995)
Monarchy						12.49***		11.17***	11.25***	9.757***
						(2.637)		(2.905)	(2.956)	(2.744)
Years of Schooling			0.458					-0.453	-0.461	-0.984
			(0.620)					(0.700)	(0.705)	(0.644)
Latitude (abs)					0.247***			0.177*	0.174*	0.0756
					(0.0839)			(0.101)	(0.103)	(0.104)
Age (15 - 64)				16.22				6.635	6.586	13.79
				(18.77)				(19.96)	(20.08)	(18.36)
Openness									-0.00341	-0.00783
									(0.0190)	(0.0172)
Gini										-0.350**
										(0.135)
Cons.	33.15***	34.29**	28.81***	22.52*	27.51***	30.29***	10.60	19.11	18.96	22.52
	(3.226)	(3.658)	(7.023)	(12.72)	(3.652)	(2.989)	(10.59)	(15.75)	(15.87)	(16.41)
Obs.	110	108	97	110	110	110	110	96	96	92
R^2	0.504	0.507	0.503	0.508	0.544	0.596	0.522	0.632	0.632	0.707

Notes. Standard errors are in parenthesis. In columns (1) and (2) the standard errors are clustered at firm level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$. In column (7) the standard errors are heteroskedasdicity robust.

Table 3: Addressing Endogeneity – LIML IV-Estimations

Dep. Var.			Trust	
Panel A Second Stage Results				
Instrumented Var.	Gini	Ethnic_Fract.	Openness GDP	Years of Schooling
	(1)	(2)	(3)	(4)
French Legal Origin	1.743	-0.954	0.702	4.880
	(2.687)	(3.865)	(3.130)	(3.781)
Mixed Legal Origin	-3.202	-14.98**	-3.792	-4.978
	(4.410)	(6.118)	(4.003)	(4.101)
German Legal Origin	5.633	-2.624	4.164	7.950*
	(4.014)	(5.982)	(4.372)	(4.418)
Scand. Legal Origin	8.553	-4.915	14.57*	17.16*
	(7.615)	(12.25)	(8.209)	(8.810)
Post-communistic	-13.68***	-6.271	-8.076	-14.69***
	(4.142)	(5.862)	(5.265)	(5.111)
Sub-Saharan-Africa	-6.918**	4.951	1.430	-2.756
	(3.242)	(7.312)	(6.558)	(6.402)
Muslims	-0.0827*	-0.0697	-0.0240	-0.0211
	(0.0448)	(0.0634)	(0.0565)	(0.0587)
Catholics	-0.108***	-0.111**	-0.116***	-0.137***
	(0.0347)	(0.0516)	(0.0386)	(0.0398)
Protestants	0.146*	0.193	0.0396	0.0142
	(0.0781)	(0.122)	(0.101)	(0.103)
Ethnic_Fract.		-38.76**		
		(16.69)		
Years of Schooling				2.054
				(1.444)
Age (15 - 64)	27.19*	11.10	5.582	6.939
	(16.51)	(26.53)	(21.59)	(19.43)
Monarchy	9.315***	9.784**	8.791***	10.08***
	(2.789)	(4.027)	(3.074)	(3.225)
Openness			-0.0335	
			(0.0263)	
Ln(GDP per capita)			5.551*	
			(3.108)	
Gini	-0.232			
	(0.191)			
Obs.	81	78	80	94
R^2	0.697	0.355	0.637	0.532
Weak-ID Test	12.64	6.592	5.855	9.017
UI-Test	29.56	13.32	17.02	17.29
(p-value)	1.71e-06	0.00128	0.000201	0.000176
Sargan-stat.	4.129	0.216	1.019	1.779
(p-value)	0.127	0.642	0.313	0.182
Endogeneity Test (p-value)	0.402	0.000164	0.321	0.104

Dep. Var	Gini	Ethnic_Fract.	Openness	Ln(GDP per capita)	Years of Schooling
	(1)	(2)	(3)	(4)	(5)
French Legal Origin	4.081*	-0.0308	-51.70***	-0.255	-1.829***
	(2.353)	(0.0656)	(17.41)	(0.236)	(0.530)
Mixed Legal Origin	17.00***	-0.162	-13.85	-0.566*	-0.202
	(3.050)	(0.0987)	(22.29)	(0.302)	(0.697)
German Legal Origin	-2.179	-0.0380	-50.79**	-0.0361	-2.271***
	(3.907)	(0.0962)	(24.38)	(0.330)	(0.785)
Scand. Legal Origin	-7.933	-0.274	-42.42	-1.002	-3.507**
	(6.668)	(0.189)	(47.87)	(0.648)	(1.391)
Post-communistic	3.340	0.0834	36.45	-1.083***	1.908**
	(4.122)	(0.0932)	(28.18)	(0.382)	(0.729)
Sub-Saharan-Africa	-5.461*	0.206**	-35.42	-1.591***	-2.896***
	(3.178)	(0.0934)	(23.26)	(0.315)	(0.683)
Muslims	-0.0218	0.000586	-0.199	-0.0122***	-0.0248***
	(0.0395)	(0.00103)	(0.288)	(0.00390)	(0.00777)
Catholics	-0.00128	-0.000109	-0.394	-0.00339	0.00767
	(0.0320)	(0.000889)	(0.239)	(0.00323)	(0.00699)
Protestants	0.0774	0.00241	-0.380	0.00699	0.0302*
	(0.0816)	(0.00212)	(0.577)	(0.00782)	(0.0156)
Age (15 - 64)	7.990	-0.721*	195.4*	3.301**	-0.497
	(15.18)	(0.418)	(108.7)	(1.472)	(3.384)
Monarchy	-4.133	-0.00809	3.190	0.118	0.245
	(2.511)	(0.0664)	(17.88)	(0.242)	(0.526)
Time since Neo. Rev.	-0.00167***		-0.00629	5.53e-06	
	(0.000507)		(0.00392)	(5.32e-05)	
Latitude(abs)	-0.265***		-0.663	0.0236***	0.0571***
	(0.0785)		(0.574)	(0.00777)	(0.0158)
Pop. Dens. 1500	-0.00266				0.0109*
	(0.0284)				(0.00634)
Pronoun-Drop		-0.184***			
		(0.0672)			
TA 1500		-0.178**			
		(0.0858)			
Ln(FR trade-share)			57.82***	0.291***	
			(8.082)	(0.109)	
Obs.	81	78	80	80	94
R^2	0.669	0.544	0.526	0.799	0.697
Shea-partial R^2	0.3649	0.1708	0.4522	0.2485	0.1840
F-value (excluded IV's)	12.64	6.59	17.89	7.17	9.02

Notes. Standard errors are in parenthesis. Coefficient is statistically different from zero at the ***1 %, **5 % and *10 % level. Every regression contains a constant not reported. The underidentification test reports a Anderson canonical LM statistic (p-value in parenthesis). The null hypothesis is that the reduced form coefficients has rank=K1-1 (underidentified). The weak identification test reports the value of a Cragg-Donald Wald F statistic. In parenthesis there is the maximum value of this Cragg-Donald Wald F statistic necessary for not rejecting the null hypothesis that the true significance of hypothesis tests about the endogenous regressor's coefficient is smaller than 10 % when the usually stated significance level is 5 %. The test of overidentifying restrictions reports a Sargan statistics (p-value in parenthesis). The null hypothesis is that the instruments are valid, that is not correlated with the error term in the second stage and excluded correctly from the reduced form estimation. The Hausman test tests the endogeneity of the instrumented variables. The null is that the instrumented variables are exogenous. What is reported is the Chi^2 value of the test statistic (p-value in parenthesis). In Panel B under the F-value of the excluded instruments the p-value of the F-test is in parenthesis.

Table 4: Detailed Analysis and Subsample Regressions

Dep. Var.		Trust	
	Democracy below median	Democracy above median	
	(1)	(2)	(3)
French Legal Origin	9.241**	-5.775	6.859**
	(3.541)	(6.386)	(3.148)
Mixed Legal Origin	-1.533	-17.20*	4.406
	(5.650)	(8.408)	(5.152)
German Legal Origin		0.209	5.504
		(5.080)	(5.249)
Scand. Legal Origin		10.54**	11.28**
		(5.096)	(5.105)
Low Corruption			13.15***
			(4.411)
Low Corruption*French LO			-10.83**
			(5.184)
Low Corruption*Mixed LO			-16.60**
			(7.025)
Low Corruption*German LO			-6.655
			(6.287)
Sub-Saharan-Africa	-6.981	18.78**	-5.423**
	(4.082)	(7.786)	(2.717)
Catholics	-0.249***	-0.0934	-0.125***
	(0.0650)	(0.0713)	(0.0317)
Muslims	-0.140*	0.123	-0.0895**
	(0.0676)	(0.218)	(0.0368)
Colony	-21.35***	8.610	0.0972
	(4.918)	(5.640)	(3.079)
Post-communistic			-8.870***
			(2.898)
Monarchy	-2.645	7.617**	8.609***
	(4.800)	(3.428)	(2.803)
Gini	0.0986	-0.858***	-0.263*
	(0.187)	(0.259)	(0.134)
Obs.	32	37	105
R^2	0.644	0.821	0.669
F-value	5.19	11.9	12

Notes. Standard errors are in parenthesis. Coefficient is statistically different from zero at the ***1 %, **5 % and *10 % level. Every regression contains a constant not reported.

Table 5: Trust and the Institutional Features of Legal Origins

Dep. Var.					Trust						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
EFI_total	3.424***										
	(0.943)										
EFI1		1.066									
		(0.721)									
EFI_2			1.304								
			(0.848)								
EFI_3			1.353								
			(1.324)								
Caselaw				3.418**						6.312***	1.726
				(1.594)						(2.194)	(2.347)
Juries				-0.0944						7.425**	-6.020
				(2.822)						(3.203)	(5.100)
Tenure				-3.711						-7.387**	-2.726
				(2.599)						(3.553)	(3.706)
Jud. Indep. (EFI)					0.849						
					(0.846)						
Rule of Law (WGI)					-7.914**						
					(3.784)						
Cont. of Corr. (WGI)					8.966***						
					(3.263)						
Legal Formalism						-0.0397		-2.388*	-2.591		
						(1.219)		(1.240)	(1.712)		
Credit Market Reg.(EFI)							1.701				
							(1.136)				
Bureaucracy Costs (EFI)							0.767				
							(0.752)				
Labour Regulation							19.47***				
							(6.688)				
Entry Regulation							-4.337*				
							(2.547)				
Obs.	101	101	101	80	99	84	76	38	42	39	41
R^2	0.587	0.565	0.590	0.563	0.625	0.575	0.664	0.686	0.667	0.756	0.279
F-value	21.43	19.09	19.08	11.43	18.72	17.35	14.52	18.37	11.67	11.60	1.546

Notes. Standard errors are in parenthesis. In columns (1), (2) and (8) the standard errors are heteroskedasdicity robust. Coefficient is statistically different from zero at the ***1 %, **5 % and *10 % level. Every Regression contains the control variables that where robustly significant in the regressions in Table 1 (Monarchy, Post-communism dummy, the Gini coefficient and the share of Catholics and Muslims) the estimates for them are not reported. The regression contains a constant.

Table 6: Legal Origins and Trust - Transmission Channels

	3 SLS						2 SLS	
Dep. Var.	1. Stage Cont. Of Corr. (WGI)	2. Stage EFI.2	3. Stage Trust	3. Stage Trust	1. Stage EFI.2	2. Stage Trust	1. Stage EFI_5	2. Stage Trust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Cont. of Corr. (WGI)		1.455*** (0.0937)			1.276*** (0.0732)			
Legal Formalism					-0.178** (0.0741)			
EFI.2			6.137** (2.946)	4.367 (3.414)		2.737*** (0.983)		
Entry Regulation							-1.1251*** (0.1398)	
EFI.5								10.96*** (2.516)
Caselaw	0.938*** (0.173)							
Juries	0.712*** (0.255)							
Tenure	-0.460* (0.261)							
Constant	-0.563* (0.302)	5.618*** (0.125)	5.729 (33.18)	20.77 (38.43)	6.410*** (0.293)	34.62*** (10.59)	9.2936 (-0.316)	-48.07*** (17.08)
Legal Origins Dummies	No	No	No	Yes	No	No	No	No
Controls included	No	No	Yes	Yes	No	Yes	No	No
F-value/Chi^2	34.14	243.31	78.2	135.72	210.45	19.24	64.73	64.73
Obs.	39	39	39	39	82	82	78	78
R^2	0.467	0.873	0.618	0.786	0.842	0.597	0.3982	0.069

Table 7: Historical Trust Levels and the Choice of Legal Systems - IV Probit Estimations

	Panel A (Original Trust Proxy)					
	Not Colonies (Acemoglu et al.)		Countries with endogenous LO (Klerman et al.)		Countries with endogenous LO and not post-communistic	
Dep. Var.	British Legal Origin	French Legal Origin	British Legal Origin	French Legal Origin	British Legal Origin	French Legal Origin
	(1)	(2)	(3)	(4)	(5)	(6)
Trust	0.0445**	-0.0588**	0.0425***	-0.0806***	0.0037***	-0.1072***
	(0.024)	(0.0279)	(0.0145)	(0.0212)	(0.013)	(0.03)
Wald Chi^2	5.11	4.42	8.56	14.52	8.06	12.77
p> Chi^2	0.2376	0.5881	0.367	0.4094	0.4066	0.4984
Obs.	32	32	47	47	38	38
Trust alternative	5.3155**	-7.1932***	5.1763**	-9.466***	4.4863**	-10.2645**
	(2.6096)	(2.3016)	(2.0966)	(1.8941)	(1.896)	(2.2505)
Wald Chi2	4.15	9.77	6.1	24.98	5.6	20.8
p>Chi2	0.3612	0.2232	0.4871	0.1098	0.5641	0.0595
Obs.	32	32	47	47	38	38
	Panel B (alternative Trust Proxy)					
	Not Colonies (Acemoglu et al.)		Countries with endogenous LO (Klerman et al.)		Countries with endogenous LO and not post-communistic	
Dep. Var.	British Legal Origin	French Legal Origin	British Legal Origin	French Legal Origin	British Legal Origin	French Legal Origin
	(1)	(2)	(3)	(4)	(5)	(6)
Trust	0.0363	-0.0712***	0.0343	-0.0851***	0.0358**	-0.0834***
	(0.0513)	(0.0175)	(0.0318)	(0.0146)	(0.018)	(0.0216)
Wald Chi^2	0.5	16.45	1.17	33.8	3.96	14.98
p> Chi^2	0.9461	0.0583	0.9898	0.0007	0.7504	0.0582
Obs.	53	53	61	61	43	43
Trust alternative	2.2721	-6.7967***	3.105	-8.8709***	3.9052	-8.3748***
	(4.9794)	(2.1721)	(4.3578)	(1.5948)	(2.5151)	(2.085)
Wald Chi^2	0.21	9.79	0.51	30.94	2.41	16.13
p> Chi^2	0.7539	0.2008	0.8144	0.0012	0.9168	0.0465
Obs.	53	53	61	61	43	43

	Panel C (Proxy of Bjørnskov)					
	Not Colonies (Acemoglu et al.)		Countries with endogenous LO (Klerman et al.)		Countries with endogenous LO and not post-communistic	
Dep. Var.	British Legal Origin	French Legal Origin	British Legal Origin	French Legal Origin	British Legal Origin	French Legal Origin
	(1)	(2)	(3)	(4)	(5)	(6)
Trust	0.0579*** (0.02)	-0.0297 (0.0238)	0.0481*** (0.018)	-0.0627*** (0.0203)	0.00387*** (0.014)	-0.0719*** (0.0245)
Wald Chi^2	8.35	1.56	7.15	9.52	7.62	8.64
p> Chi^2	0.1981	0.6266	0.4387	0.5957	0.4835	0.8326
Obs.	57	57	62	62	43	43
Trust alternative	5.9682** (2.9753)	-3.9083 (2.848)	5.1178* (2.7215)	-7.5727*** (2.028)	4.0112* (2.1802)	-7.9271*** (2.3543)
Wald $Chi2$	4.02	1.88	3.54	13.92	3.39	11.34
p> Chi^2	0.4914	0.9795	0.7378	0.1882	0.8605	0.454
Obs.	57	57	62	62	43	43

	Panel D (Trust Proxy Colony)					
	Not Colonies (Acemoglu et al.)		Countries with endogenous LO (Klerman et al.)		Countries with endogenous LO and not post-communistic	
Dep. Var.	British Legal Origin	French Legal Origin	British Legal Origin	French Legal Origin	British Legal Origin	French Legal Origin
	(1)	(2)	(3)	(4)	(5)	(6)
Trust	0.0678*** (0.0106)	-0.0729*** (0.0151)	0.0706*** (0.0112)	-0.0924*** (0.019)	0.061*** (0.0134)	-0.1159*** (0.0317)
Wald Chi^2	41.04	23.28	39.71	23.77	20.7	13.36
p> Chi^2	0.000	0.0258	0.0001	0.0254	0.0000	0.1604
Obs.	26	26	39	39	35	35
Trust alternative	7.3963*** (1.3038)	-7.1503** (2.8183)	8.5291*** (1.7051)	-9.6388*** (2.2289)	-9.7241*** (2.6022)	-7.2243*** (1.8536)
Wald Chi^2	32.18	6.44	25.02	18.7	13.96	15.19
p> Chi^2	0.0000	0.4833	0.0029	0.0838	0.2615	0.0004
Obs.	26	26	39	39	35	35

Notes. Heteroskedasdicity robust standard errors are in parenthesis. Coefficient is statistically different from zero at the ***1 %, **5 % a
p> Chi^2 denotes the p-value of the Wald test of exogeneity.

Table 8: The Impact of Legal Traditions on Trust – Interactions Terms

							Trust alternative	
				Trust				
Panel A: Countries with exogenous LO - upper bound								
Dep. Var.	(1)	(2) Without Post-comm	(3)	(4)	(5) Without Post-comm	(6) Without Post-comm	(7)	(8)
Trust Proxy (alt.)	above median hist. trust	below median hist. trust	above median hist. trust	above median hist. trust	below median hist. trust	below median hist. trust	above average hist. trust	above average hist. trust
French LO	5.739 (4.300)	-3.657 (9.395)	8.002* (4.149)	7.170* (4.137)	-2.431 (7.850)	-9.486*** (3.508)	0.0579 (0.0457)	0.101*** (0.0341)
Mixed LO	-2.826 (4.413)	-23.26*** (8.593)	-2.324 (4.159)	0.159 (4.319)	-18.94** (9.036)	-10.76 (7.533)	-0.0210 (0.0506)	0.0124 (0.0447)
German LO	-8.061 (8.727)	-1.263 (10.71)	7.555 (6.696)	7.280 (12.35)	-7.398 (10.49)	-11.85 (7.467)	-0.0185 (0.0690)	0.0360 (0.0574)
Historical Trust	0.717*** (0.269)	0.783** (0.362)	0.817*** (0.227)	0.709** (0.284)	0.592* (0.335)	0.637** (0.325)	0.449 (0.327)	0.632** (0.276)
High Historical Trust	-10.21** (4.826)		-10.68** (4.149)	-7.794 (5.618)			0.107* (0.0599)	0.143*** (0.0491)
Low Historical Trust		11.15* (5.933)			4.575 (7.088)	5.903 (6.830)		
British LO*HHT/LHT	21.24** (9.389)	-20.29** (9.559)	25.61*** (8.273)	26.08** (10.74)	-18.46** (9.200)	-11.06 (7.782)		
French LO*HHT/LHT	12.18 (8.357)	-9.201 (9.877)	19.00*** (6.039)	16.00 (10.89)	-6.073 (10.04)	8.213 (9.075)	-0.156** (0.0635)	-0.179*** (0.0519)
Mixed LO*HHT/LHT							-0.0435 (0.0629)	-0.0873 (0.0543)
German LO*HHT/LHT	23.75*** (5.273)		21.41*** (4.355)	18.93*** (4.996)			-0.143* (0.0746)	-0.169** (0.0784)
Additional Controls	No	No	Post-comm.	Post-comm. & Sub-Saharan Afr.	Sub-Saharan Afr.	Sub-Sahara Afr.	Post-comm.	Post-comm
Countries removed	None	None	Saudi Arabia,Ghana, Morocco	all with high $DFITS^a$	Saudi Arabia,Ghana, Greece	all with high $DFITS^b$	None	Saudi Arabia (highest Dfits)
Obs.	64	56	61	56	53	49	88	87
R^2	0.486	0.547	0.666	0.602	0.695	0.709	0.369	0.451
Chi^2	102.9	56.68	161.0	123.0	68.21	635.4	57.85	75.44

Panel B:			Ex-Colonies with exogenous LO (Klerman et al.) - lower bound				Ex-Colonies (Acemoglu et al.)	
Dep. Var.	Trust		Trust Proxy (alternative)				Trust	
					Trust alternative			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	above median hist. trust	above median hist. trust	above median hist. trust	above median hist. trust	below median hist. trust	below median hist. trust	above median hist. trust	above median hist. trust
French LO	14.4864*** (5.3325)	13.865*** (5.1282)	0.0843* (0.0465)	0.1018** (0.0424)	-0.0674 (0.0679)	-0.0816*** (0.0675)	10.8749*** (3.5069)	11.3017*** (3.4277)
Mixed LO	1.7234 (7.062)	3.4527 (6.0238)	-0.0397 (0.0642)	-0.0074 (0.0587)	-0.1122 (0.0918)	-0.1005 (0-1012)	2.7353 (5.1753)	0.01243.0565 (4.9214)
German LO	-9.5718 (12.9563)		-0.1818*** (0.0559)	0.1507*** (0.0556)	-0.1617 (0.1099)	-0.2771*** (0.0586)		
Historical Trust	0.2489 (0.8092)	0.7095 (0.8228)	1.5956* (0.8445)	0.8516 (0.7785)	1.2107 (0.8475)	0.821 (0.8744)	1.2518** (0.5918)	0.718 (0.6243)
High Historical Trust	9.5253 (14.5451)	-1.7103 (13.4283)	-0.0052 (0.0968)	0.0589 (0.0855)			-15.501*** (5.8687)	-13.4532** (5.9248)
Low Historical Trust					-0.0256 (0.1018)	-0.068 (0.1044)		
British LO*HHT/LHT	3.0499 (11.9965)	10.4149 (9.4868)	-0.0395 (0.1064)				16.4451** (6.4085)	18.4117*** (7.0057)
French LO*HHT/LHT	-11.8081 (14.7117)	7.9942 (14.3291)	-0.1479 (0.0968)	-0.1755** (0.0723)	0.1662* (0.0885)	0.1897** (0.0869)	9.1232 (9.6969)	
Mixed LO*HHT/LHT			-0.1045 (0.1263)	-0.0884 (0.0967)	0.0868 (0.1008)	0.0837 (0.1067)		
German LO*HHT/LHT					0.0046 (0.1167)			
Additional Controls	No	No	No.	No.	Gini	Gini.	Gini	Gini
Countries removed	None	Mongolia, Morocco, South Korea	None	Mongolia, Morocco, South Korea, Trinidad & Tobago	None	Georgia, Mongolia, South Korea	None	Thailand, Uruguay, Canada
Obs.	33	30	45	42	43	41	53	51
R^2	0.6790	0.7499	0.5042	0.6067	0.5758	0.5995	0.6571	0.6228
Chi^2	23.82	31.41	33.62	51.92	45.29	70.16	106.86	47.97

Notes. Bootstrapped standard errors (¿2000 replications) are in parenthesis. Coefficient is statistically different from zero at the ***1 %, **5 % and *10 % level. All regressions contain a constant not reported here and a set of controls. In Panel A these are the share of Muslims and Catholics, ethnic fractionalization and a dummy indicating a countries that are former colonies. In Panel B these are the share of Muslims and Catholics, ethnic fractionalization and a dummy indicating a country located in Sub-Saharan Africa. If additional or other controls are included this is reported in the table.

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Table 9: Trust, Legal Origins and Colonialism – Three-Way Interaction Terms

	Ex-Colonies with exogenous LO (Klerman et al.)			Ex-Colonies (Acemoglu et al.)	
Dep. Var.	Trust		Trust Proxy (alternative)		Trust alternative
			Below Median Historical Trust		French vs. British LO countries
	(1)	(2)	(3)	(4)	(5)
British LO*LHT*Colony	-28.1356* (15.5971)		-39.4794** (17.3498)	-43.9231** 17.3797	
French LO*LHT*Colony	19.3469* (11.001)	42.1983*** (10.204)	-10.0075 (15.4775)	-13.4518 (15.3388)	0.3408** (0.1642)
Additional Controls	No	Ethnic Fractionalization, Latitude	Ethnic Fractionalization, Latitude	Ethnic Fractionalization, Time Since Settlement, Pop. Dens. 1500	Ethnic Fractionalization, Ln(GDP per capita)
Countries removed	None	None	None	None	Post-communistic countries
Obs.	105	103	103	103	63
R^2	0.7197	0.7423	0.6957	0.7063	0.5833
Chi^2/ F-value	3955.09	416.17	8.82	8.64	4.08

Notes. Bootstrapped standard errors (¿2000 replications) are in parenthesis. In the regressions in columns $(3) - (5)$ normal standard errors are reported. Coefficient is statistically different from zero at the ***1 %, **5 % and *10 % level. The regressions contain a constant not reported here. Furthermore, each regression includes as set of following controls: the shares of Muslims and Catholics, a dummy variable indicating countries located in Sub-Saharan Africa and with post-communistic past and a dummy variable denoting constitutional monarchies. If other controls are included this is indicated in the table.

A. Descriptive Statistics

Table A.1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Age (15 - 64)	114	0.64	0.07	0.3	0.77
Bureaucracy Costs (EFI)	104	4.76	1.78	1	9.9
Caselaw	91	1.3	0.82	0	2
Catholics	112	36.39	38.29	0	97.3
Colony	113	0.5	0.5	0	1
Cont. of Corr. (WGI)	114	0.18	1.02	-1	2.48
Credit Market Reg. (EFI)	107	8.56	1.07	5	10
Urbanization 1500	76	7.25	5.245	0	28
Urbanization 2009	113	61.8	21.9	13.14	100
Democ	108	6.45	7.72	-66	10
EFI_1	107	6.46	1.22	4	9.1
EFI_2	107	5.94	1.63	3	9
EFI_5 2009	107	6.83	0.91	4.5	8.9
EFI_total	107	6.83	0.75	4.08	9.01
Ethnic Fract.	110	0.4	0.24	0.002	0.93
Ln(FR trade-share)	92	2.8	0.77	0.94	5.639
Legal Formalism	88	3.68	1.08	1	6.01
GDP per capita	113	15124.86	14841.5	142.6	84571.54
Gini	107	39.26	10.11	23	70.7
Jud. Indep.(EFI)	104	4.96	2.38	0	9.2
Juries	113	0.26	0.44	0	1
Labor Regulation	80	0.48	0.19	0.15	0.83
Latitude (Abs)	113	31.1	17.32	0	64
Legal Origin	113	2.19	1.12	1	5
Legal Origin_alt.	113	2.36	1.09	1	5
Malaria Risk 94	111	0.2	0.36	0	1
Mintemp	114	9.25	10.43	-16	27
Monarchy	114	0.15	0.36	0	1
Muslims	112	17.52	31.51	0	99.5
Openness	113	90.49	57.89	24	408.51
Post-communistic	114	0.21	0.41	0	1
Pronoun-Drop	114	1.26	0.44	1	2
Protestants	111	12.19	22.02	0	97.8
Entry Regulation	80	2.15	0.54	0.69	3
Rule of Law (WGI)	114	0.18	0.98	-1.835	1.96
Secondary Education	99	25.83	14.99	1	65.2
Sub-Saharan Africa	114	0.18	0.39	0	1
TA 1500	80	0.53	0.33	0	1
Tenure	87	0.45	0.5	0	1
Time since Neo. Rev.	84	4557	2349.076	400	10500
Time Settlement	110	49129.09	45194.52	500	160000
Years of Schooling	99	8.55	2.72	1	13.27

Table A.2: Trust Scores and Legal Origins – Overview

Country	Trust	Trust alternative	Historical Trust Proxy	Alternative Historical Trust Proxy	Legal Origin
Albania	25.7	25.7		32.56	2
Algeria	11.2	11.2	23	23.6	2
Argentina	19.4	20.3	16.4	22.56	2
Armenia	24.7	24.7			2
Australia	47.1	44.6	43.8	28.45	1
Austria	37.6	32.8	36.1	37.6	4
Azerbaijan	20.5	20.5		23.34	2
Bangladesh	22.2	22.2	33.7	33	1
Belarus	30.5	24.5		25.5	2
Belgium	31.4	31.5	39.7	33.61	2
Benin	27.4	27.4	17.6	17.35	2
Bolivia	19.3	20.7	17.6	18.81	2
Bosnia	22	21.9	23.4	25.66	4
Botswana	11.7	10.3	17.1	19.77	3
Brazil	5.8	5.9	17.4	18.27	2
Bulgaria	29	25.3		24.96	4
Burkina Faso	13.8	14.7	20.6	18.47	2
Canada	49	39.7	29.4	33.12	1
Cap Verde	3.4	3.4			2
Chile	17.2	15	17.6	22.16	2
Colombia	16.3	18.7	17.4	16.59	2
Costa Rica	13.5	17.3	17.4	17.48	2
Croatia	21	21.9		25.66	4
Cyprus	18.7	12.8			3
Czech	26.2	29.3	35.4	41.55	4
Denmark	60.7	58.3	51.7	36.95	5
Luxembourg	30.5	26	19.1	28.72	2
Macedonia	10.9	10.9		25.66	2
Madagascar	32.8	32.8	22.5	19.08	2
Malawi	5.5	25.9	20.6	18.24	1
Malaysia	9.6	8.8	24.1	16.28	1
Mali	27.5	17.8	18.5	18.1	2
Malta	24.6	18.8			2
Mexico	24.2	27	19.8	20.34	2
Moldova	18.2	18.2		32.16	2
Mongolia	12.6	12.6	35.3	24.31	4
Montenegro	33	33			2
Morocco	18.1	19.4	17.1	23.52	2
Mozambique	25.2	25.2	51.7	19.84	2
Namibia	20.5	31.7	44.9	19.77	3
Netherlands	53.6	44.5	17.4	39.08	2
New Zealand	51.2	50	20.3	30.96	1
Nicaragua	18.7	19.4	51.7	17.85	2
Nigeria	20.9	14	22.6	17.91	1
Norway	63.9	69.5		45.24	5
Pakistan	25.7	27.4	17.4	26.16	1
Palestine	39.2	39.2	16.2		
Panama	22.3	21.4	17.6	17.29	2
Paraguay	9.5	12.7	21.3	20.04	2
Peru	9.9	15.4	23.6	17.48	2
Philippines	7.6	8.8	24.7	17.69	3
Poland	20	23.31		28.01	4

Country					
Dominican Republic	26.4	27.7		19.14	2
Ecuador	16.1	20.7	17.6	16.13	2
Egypt	28.1	28	23.1		2
El Salvador	16.4	22.2	18.2	18.04	2
Estonia	28.2	21.5		34.4	4
Ethiopia	21.4	24.4	20.9	19.04	2
Finland	58	55	34.3	35.64	5
France	22.3	18.67	36.4	38.13	2
Georgia	18.7	18.5		23.53	4
Germany	37.7	33.7	36.1	37.05	4
Ghana	15.5	15.7	31.6	25.5	1
Greece	21.6	23.7	24.4	24.15	2
Guatemala	21.5	23.6	18.2	18.22	2
Honduras	18.8	19.1	18.2	18.41	2
Hong Kong	32.2	29.4	23.9	19.38	1
Hungary	26.3	30.2	36.1	35.13	4
Iceland	45.3	41.8		41.11	5
India	33.9	34.6	22.8	24.67	1
Indonesia	44.6	45.6	22	17.18	2
Ireland	39.1	41.6	35.2	35.62	1
Israel	23.5	23.5		23.16	3
Italy	29.7	29.2	24.1	30.98	2
Japan	39.7	31.8	51		4
Jordan	29.4	29.5		38.85	3
Kenya	9.8	9.8	18.2	16.23	1
Kuwait	23.4	23.4		20.9	2
Kyrgyzstan	16.7	16.7		23.49	2
Latvia	18.5	24.7		34.03	4
Lebanon	15.8	15.8		25.08	2
Lesotho	15.7	16.6	33.2	20.78	3
Lithuania	23	21.9	35.7	33.47	2
Portugal	20	16.2	22.3	25.7	2
Puerto Rico	14.3	12.4	23.2	19.92	3
Romania	16.6	19.6		25.67	2
Russian	30.2	29.2	36	25.69	2
Rwanda	4.8	4.9		21.42	2
Saudi Arabia	53	53		20.08	1
Senegal	26.8	26.8	23.4	18.85	2
Serbia	20.7	27.6	22.5	28.58	2
Singapore	22.5	14.7		15.46	1
Slovakia	21.2	25.8	17.6	37.53	4
Slovenia	19.6	16.8	23.6	24.8	4
South Africa	19.6	18.1	40.5	20.97	3
South Korea	33.2	39.4	51.7	31.37	4
Spain	32.8	35.5	35.4	25.74	2
Sweden	64.3	64.7		45.5	5
Switzerland	44.3	43.8		36.68	4
Taiwan	38.2	40.7	38.3		4
Tanzania	13.9	11.3		16.46	1
Thailand	54.2	17.7	23.5	18.59	3
Trinidad and Tobago	3.8	3.8	18.5	25.42	1
Turkey	9	12.1	23.6	24.43	2
Uganda	13.6	13.6	52.5	17.03	1
Ukraine	27.8	30.3	17.4	24.76	2
United Kingdom	36.4	37.8	28.2	37.19	1
United States	27.3	37.2	17.4	23.49	1
Uruguay	41.5	30.7	23.2	29.57	2
Venezuela	14.1	19.2		17.03	2
Vietnam	46.1	47.8	17.9	19.48	2
Yemen	41.9	41.9	29.7	19.14	2
Zambia	13.2	15		19.17	1
Zimbabwe	12.6	13.3		26.95	3

Table A.3: Descriptive Overview over the Trust Proxies

Variable	Obs	Mean	Std. Dev.	Min	Max
Trust	114	25.57	13.4	3.4	64.27
Trust Proxy	80	26.86	10.33	16.19	52.55
Trust Proxy (alternative)	106	25.18	7.51	15.46	45.5
Trust Proxy (Colony)	68	26.9	9.5	13.7	47.11
Trust Proxy (Bjørnskov)	114	25.57	7.98	17.84	46.96
Alternative Trust Sample					
Trust alternative	114	0.25	0.13	0.03	0.7
Trust Proxy	80	0.27	0.09	0.18	0.48
Trust Proxy (alternative)	106	0.25	0.07	0.16	0.45
Trust Proxy (Colony)	68	0.27	0.09	0.13	0,45
Trust Proxy (Bjørnskov)	114	0.25	0.07	0.17	0.44

Table A.4: Pairwise Correlations Between The Trust Measures And The Trust Proxies

	Trust	Trust Proxy	Trust Proxy alternative	Trust Proxy (Colony)	Trust Proxy (Bjørnskov)	Trust	Trust Proxy	Trust Proxy alternative	Trust Proxy (Colony)	Trust Proxy (Bjørnskov)
Alternative Trust Sample										
Trust	1									
Trust Proxy	0.65	1								
Trust Proxy alternative	0.56	0.8	1							
Trust Proxy (Colony)	0.63	0.65	0.56	1						
Trust Proxy (Bjørnskov)	0.55	0.94	0.76	0.73	1					
Standard Sample										
Trust	0.92	0.72	0.55	0.6	0.59	1				
Trust Proxy	0.65	0.999	0.79	0.84	0.94	0.72	1			
Trust Proxy alternative	0.56	0.82	0.996	0.9	0.78	0.55	0.8	1		
Trust Proxy (Colony)	0.63	0.68	0.61	0.99	0.58	0.64	0.68	0.61	1	
Trust Proxy (Bjørnskov)	0.55	0.95	0.71	0.71	0.99	0.6	0.95	0.73	0.71	1

B. Robustness Checks

This section shows robustness checks of the estimates in Table 1 and the results of a Jackknife task conducted for the two trust sample and the two main trust proxies.

Table B.1: Robustness Checks - Table 1

Dep. Var.	Trust alternative	Trust	Trust alternative	Trust	Trust alternative	Trust	Trust alternative	Trust	Trust	Trust
	Alternative Dependent Variable / Legal Origin Coding			Robust Standard Errors (Bootstraped)				Other/ Additional Controls		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
French LO	0.0009 (0.0288)	1.5087 (2.7535)	0.0168 (0.0268)	1.5886 (3.759)	0.0009 (0.0363)	1.5087 (3.5533)	0.0168 (0.0356)	2.997 (3.962)	2.4756 (3.5976)	1.5828 (3.8528)
Mixed LO	-0.0566 (0.0388)			-1.1588 (4.7304)	-0.0566 (0.0478)			-0.742 (5.677)	-0.6941 (4.4853)	-2.4633 (4.6854)
German LO	0.0079 (0.036)	2.3293 (3.5928)	0.0183 (0.035)	2.4656 (4.5039)	0.0079 (0.0448)	2.3293 (4.1989)	0.0183 (0.0442)	4.2516 (4.7965)	2.9271 (4.362)	2.4382 (4.7421)
Scand. LO	0.0412 (0.071)	7.5013 (7.3489)	0.0453 (0.0716)	7.444 (7.3765)	0.0412 (0.0867)	7.5013 (7.3686)	0.0453 (0.0896)	9.5533 (7.1614)	8.4022 (7.285)	7.5699 (7.6758)
Post-communistic	-0.0757* (0.04)	-8.9872** (4.0779)	-0.066 (0.0397)	-9.4332** (4.1125)	-0.0757* (0.0422)	-8.9872** (4.0048)	-0.066 (0.0411)	-9.858*** (3.4992)	-10.39*** (3.9911)	-11.6288*** (3.6747)
Sub-Saharan-Africa	-0.0679* (0.0401)	-8.378** (4.1168)	-8.2432 (5.1496)	-0.0679 (0.0541)	-8.378 (5.0101)	-0.0768 (0.0514)	-8.0768 (6.4889)	-9.0231 (5.3787)	-9.8616** (4.8717)	
Muslims	-0.0011** (0.0004)	-0.1458*** (0.046)	-0.0011** (0.0004)	-0.1437** (0.0616)	-0.0011* (0.0006)	-0.1458** (0.0601)	-0.0011** (0.0006)	-0.1183** (0.0581)	-0.1409** (0.0622)	-0.1577** (0.0634)
Catholics	-0.0008** (0.0003)	-0.1214*** (0.0336)	-0.0007** (0.0003)	-0.1235*** (0.0397)	-0.0008* (0.0004)	-0.1214*** (0.0404)	-0.0007** (0.0003)	-0.12*** (0.0414)	-0.117*** (0.0386)	-0.1294*** (0.043)
Protestants	0.0017** (0.0008)	0.0986 (0.0798)	0.0019** (0.0008)	0.0974 (0.0889)	0.0012 (0.0012)	0.0986 (0.0891)	0.0019* (0.0011)	0.1027 (0.0581)	0.0899 (0.8692)	0.0904 (0.0908)
Ethnic Fract.	0.0535 (0.048)	8.9606* (4.9212)	0.0641 (0.0479)	8.7081 (5.4039)	0.0535 (0.0453)	8.9606* (5.2786)	0.0641 (0.0456)	7.1548 (5.4311)	9.6184* (5.3897)	9.398* (5.6244)
Years of Schooling	-0.0067 (0.0062)	-1.077* (0.6189)	-0.0085 (0.006)	-0.9842 (0.6315)	-0.0067 (0.0068)	-1.077* (0.5787)	-0.0085 (0.006)		-0.8603 (0.6186)	-0.6401 (0.6506)
Age (15 - 64)	0.1833 (0.1765)	12.9064 (17.6624)	0.1209 (0.172)	13.7902 (27.9841)	0.1833 (0.2501)	12.9064 (26.6864)	0.1209 (0.2353)	19.7558 (30.0169)	11.453 (25.4928)	21.5169 (21.9524)
Latitude (abs)	0.0006 (0.001)	0.072 (0.1016)	0.0004 (0.001)	0.0756 (0.1181)	0.0006 (0.0011)	0.072 (0.1132)	0.0004 (0.0011)		0.1063 (0.1161)	0.1204 (0.1149)
Monarchy	0.073*** (0.0264)	9.5355*** (2.7105)	0.0673*** (0.0264)	9.7567*** (3.4439)	0.073** (0.0303)	9.5355*** (3.3736)	0.0673** (0.0308)	9.7879*** (3.3282)	9.3178*** (3.339)	9.8122*** (3.3993)
Ln (GDP per capita)	0.0072 (0.0152)	2.1265 (1.5334)	0.012 (0.0149)	1.9247 (1.7979)	0.0072 (0.0176)	2.1265 (1.7134)	0.012 (0.0161)	1.4921 (1.5183)	2.1307 (1.6328)	
Openness	-0.0002 (0.0002)	-0.0093 (0.0169)	-0.0002 (0.0002)	-0.0078 (0.0251)	-0.0002 (0.0003)	-0.0093 (0.0232)	-0.0002 (0.0002)	-0.0083 (0.0248)		
Gini	-0.0032** (0.0013)	-0.3709*** (0.1183)	-0.0041*** (0.0012)	-0.3501** (0.141)	-0.0032** (0.0014)	-0.3709*** (0.1216)	-0.0041*** (0.0012)	-0.3295** (0.1562)	-0.3514** (0.1377)	-0.3354** (0.1465)
Secondary Education								-0.0213 (0.0831)		
Malaria Risk 94								3.163 (7.1851)		
Urbanization 2009									-0.0754 (0.0603)	
Pop. Dens. 2010										-0.0004 (0.0043)
Chi^2				274.56	160.73	272.98	149.1	266.47	300.64	253.42
Obs.	92	92	92	92	9	92	92	91	92	90
R^2	0.6874	0.6436	0.6778	0.7075	0.6874	0.6436	0.6778	0.6989	0.714	0.7036

Notes. Coefficient is statistically different from zero at the ***1 %, **5 % and *10 % level. The bootstrapped standard errors are obtained from 2000 replications. The standard errors in columns (8) - (10) are also bootstrapped.

Results of the Jackknife Estimations for the Trust Proxies

Table B.2: Jackknife Results for original Trust Proxy and Sample

	Minimum Coefficient Estimate	Country removed	Maximum Coefficient	Country removed
Monarchy	13.936*** (4.0831)	Saudi Arabia	17.374*** (4.2293)	Lesotho
TA 1500	7.735** (3.2053)	Zimbabwe	10.075*** (3.3301)	Canada
Pronoun-Drop	10.649*** (3.5507)	Canada	13.187*** (3.4473)	Zimbabwe

Notes. Bootstrapped standard errors (2000 replications) are in parenthesis. Coefficient is statistically different from zero at the ***1 %, **5 % and *10 % level.

Table B.3: Jackknife Results for original Trust Proxy and alternative Sample

	Minimum Coefficient Estimate	Country removed	Maximum Coefficient	Country removed
Monarchy	0.106*** (0.0402)	Saudi Arabia	0.141*** (0.0425)	Thailand
TA 1500	0.064** (0.0305)	Vietnam	0.082*** (0.0311)	United States
Pronoun-Drop	0.095*** (0.0302)	Finland	0.119*** (0.0316)	Zimbabwe

Notes. Bootstrapped standard errors (2000 replications) are in parenthesis. Coefficient is statistically different from zero at the ***1 %, **5 % and *10 % level.

Table B.4: Jackknife Results for alternative Trust Proxy and original Sample

	Minimum Coefficient Estimate	Country removed	Maximum Coefficient	Country removed
Pop. Dens 1500	0.183* (0.1036)	Sweden	0.266** (0.1053)	Rwanda
Latitude (abs)	0.158** (0.0724)	Trinidad and Tobago	0.211*** (0.072)	Indonesia
Pronoun-Drop	6.987** (3.1479)	Australia	9.384*** (2.9994)	Trinidad and Tobago

Notes. Bootstrapped standard errors (2000 replications) are in parenthesis. Coefficient is statistically different from zero at the ***1 %, **5 % and *10 % level.

Table B.5: Jackknife Results for alternative Trust Proxy and Sample

	Minimum Coefficient Estimate	Country removed	Maximum Coefficient	Country removed
Pop. Dens 1500	0.0021** (0.001)	Sweden	0.003*** (0.0011)	Rwanda
Latitude (abs)	0.0016** (0.0007)	Trinidad and Tobago	0.0021*** (0.0007)	Indonesia
Pronoun-Drop	0.0541** (0.0284)	Australia	0.0766*** (0.0271)	Trinidad and Tobago

Notes. Bootstrapped standard errors (2000 replications) are in parenthesis. Coefficient is statistically different from zero at the ***1 %, **5 % and *10 % level.

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