



EUI Working Papers

ECO 2007/42

Cultural Biases in Economic Exchange?

Luigi Guiso, Paola Sapienza and Luigi Zingales

**EUROPEAN UNIVERSITY INSTITUTE
DEPARTMENT OF ECONOMICS**

Cultural Biases in Economic Exchange

LUIGI GUIISO, PAOLA SAPIENZA

and

LUIGI ZINGALES

This text may be downloaded for personal research purposes only. Any additional reproduction for other purposes, whether in hard copy or electronically, requires the consent of the author(s), editor(s). If cited or quoted, reference should be made to the full name of the author(s), editor(s), the title, the working paper or other series, the year, and the publisher.

The author(s)/editor(s) should inform the Economics Department of the EUI if the paper is to be published elsewhere, and should also assume responsibility for any consequent obligation(s).

ISSN 1725-6704

© 2007 Luigi Guiso, Paola Sapienza and Luigi Zingales

Printed in Italy
European University Institute
Badia Fiesolana
I – 50014 San Domenico di Fiesole (FI)
Italy

<http://www.eui.eu/>
<http://cadmus.eui.eu/>

Cultural Biases in Economic Exchange?*

Luigi Guiso

University of Sassari, Ente L. Einaudi & CEPR

Paola Sapienza

Northwestern University, NBER, & CEPR

Luigi Zingales

University of Chicago, NBER, & CEPR

First Draft: December 2003

This Draft: June 2007

Abstract

How much do cultural biases affect economic exchange? We try to answer this question by using the relative trust European citizens have for citizens of other countries. First, we document that this trust is affected not only by objective characteristics of the country being trusted, but also by cultural aspects of the match between trusting country and trusted country, such as religion, history of conflicts, and genetic and somatic similarities. We then find that lower relative levels of trust toward citizens of a country lead to less trade with that country, less portfolio investment, and less direct investment in that country, even after controlling for the objective characteristics of that country. This effect is stronger for goods that are more trust intensive and doubles or triples when trust is instrumented with its cultural determinants. Our results suggest that perceptions rooted in culture are important (and generally omitted) determinants of economic exchange.

*We would like to thank Giuseppe Nicoletti for providing the Organisation for Economic Co-operation and Development dataset, Michele Gambera for providing the Morningstar portfolio data, and Roc Armenter for excellent research assistantship. We also thank Franklin Allen, Marianne Baxter, Patricia Ledesma, Mitchell Petersen, Andrei Shleifer, René Stulz, and Samuel Thompson for very helpful comments. We benefited from the comments of participants to seminars at the European University Institute, Wharton, Northwestern University, the University of Chicago, University of Wisconsin, NBER Corporate Finance, International Trade, and Behavioral Meetings. Luigi Guiso acknowledges financial support from MURST, and the EEC. Paola Sapienza acknowledges financial support from the Center for International Economics and Development at Northwestern University. Luigi Zingales acknowledges financial support from the Center for Research on Security Prices and the Stigler Center at the University of Chicago.

We always have been, we are, and I hope that we always shall be detested in France.

Duke of Wellington

A survey carried out by the 3i/Cranfield European Enterprise Center highlights remarkable differences in the level of trust European managers of different nationalities have for each other. When asked to score fellow managers of different countries on the basis of their trustworthiness their responses implied the following ranking:¹

	Great Britain	France	Germany	Italy	Spain
British view	1	4	2	5	3
French view	4	2	1	5	3
German view	2	3	1	5	4
Italian view	3	2	1	4	5
Spanish view	2	4	1	5	3

Among these managers there seem to be some common views: everyone ranks German managers relatively high, while Italian ones relatively low. There is also a “home-country bias”: managers trust their fellow countrymen relatively more than what managers from other countries rank them. Italian managers, for instance, rank themselves fourth in trustworthiness, while they are ranked fifth (last) by every other group. More surprisingly, there are some match-specific attitudes. French managers, for instance, rate British managers much lower than any other ones except the Italians. This seems at odds with the ranking chosen by every other group. British managers reciprocate (as the Duke of Wellington’s opening quote seems to suggest).

These facts are not peculiar to this dataset. As we will show, they are exactly replicated in an independent and broader survey (Eurobarometer). In this paper we use this larger dataset to explain why perception of trustworthiness differs so greatly across Europe. We also use it to explore the economic consequences of these different perceptions. As Arrow (1972) states, there are very few economic activities that do not involve trust. Hence, we study whether these differences in perception of trustworthiness have an impact on macroeconomic variables such as international trade and investments.

The challenge we face in doing so is to disentangle the objective component of beliefs (everyone trusts the Germans more because they might be indeed more trustworthy) from a subjective

¹In total 1,016 managers (managing companies under 500 employees) responded from five major European Community countries: Great Britain (433 responses), France (127), Germany (135), Italy (185) and Spain (136). See Burns et al. (1993).

component (the British mistrust the French). To do so we rely on the fact that, under rational expectations, the average belief of trustworthiness of each country should be unbiased. We equate this to the “objective” belief. To isolate this objective component we regress the level of trust of country i towards country j on a fixed effect for the country receiving trust (country-of-destination fixed effects). This fixed effect absorbs all the country specific characteristics that affect trust, such as the level of protection that contracts receive, the enforcement granted by social punishment, the constraints that individuals in a country have in their behaviors due to binding cultural norms.

Every deviation of beliefs from this objective component (which we call the “subjective” component) can be due to either a difference in the information set or to a bias. For example, the average Canadian may have more information about Americans than the average Japanese and this greater amount of information can significantly affect (upward or downward) her degree of trust.

We compute this subjective component as the residual of a regression of trust on fixed effects for the country receiving trust (country-of-destination fixed effects) and fixed effects for the country trusting (country-of-origin fixed effects). The country-of-origin fixed effects capture possible systematic differences in the way different populations answer the survey. If on average the Swedes tend to answer more positively than the Portuguese to all questions, we do not want necessarily to attribute this effect to the Swedes trusting the Portuguese more than the Portuguese trust the Swedes.

To disentangle the information components of subjective beliefs from the cultural component, we then regress the residuals of the above described regression on a set of proxies for differences in information. We find that geographical distance between two countries, their proximity, and the commonality between the two languages have a significant effect on the subjective level of trust.²

As an additional measure of the degree of information/familiarity between two countries, we use the number of times a country name appears in the headlines of the major newspaper in another country. The coefficient of this variable indicates that better newspapers’ coverage leads to less trust, but overall press coverage has limited explanatory power.

Finally, a variable that could proxy both for information and for culture is the commonality

²In fact, the commonality between the two languages is also a proxy for a common culture. Thus, by attributing all its effect to information we are biasing our results against finding any effect of culture.

in the legal systems. Accordingly, in our estimates we take into account whether two countries share the same legal family (e.g., both have a French tradition or a German tradition). Sharing the same legal origin has a positive but not significant effect on the level of trust.

The level of trust across different countries, however, could also be the result of cultural stereotypes, as Bornhorst et al. (2004) have shown in an experimental setting. Hence, we insert some proxies for cultural variables.

To capture the implicit positive or negative bias against other nations present in a country's cultural tradition, we use its history of wars. People's priors can be affected by their education and in particular by the history they study in school. Italian education, for instance, emphasizes the struggles that lead to the reunification of the country in the 19th century. Since the major battles during this period were fought against Austria, Italian students may develop, as our data show, a negative image of Austrians. We find that countries with a long history of wars tend to trust each other less, but the effect is not statistically significant.

As an additional measure of culture we use commonality of religion. Religion had (and still has) a great impact on what it is taught in school and how it is taught. Hence, we expect that two countries with the same religion tend to have similar cultures and therefore trust each other more. We find this to be the case. A pair of countries where 90% of citizens share the same religion (e.g., Italy and Spain) exhibits a level of trust 6% higher.

Finally, as a measure of cultural similarity between two populations we use the evolutionary distance between them. Europeans descend two-thirds from Asian invaders and one-third from African invaders (Cavalli Sforza, 2000). As Ammerman and Cavalli-Sforza (1985) have shown, the genetic distance between two indigenous populations today reflect the history of colonization of Europe during the Neolithic Age. Since this measure is also highly correlated with a population's linguistic roots, we use it as a proxy for cultural difference between two countries.³ We find that genetically distant populations trust each other less. A one standard deviation increase in genetic distance reduces the level of trust by 27%.

As an alternative measure of distance between two populations, we derive from Biasutti (1954) an indicator of somatic distance, based on the average frequency of specific traits (hair color, height, etc.) present in the indigenous population. As DeBruine (2002) has shown in

³Giuliano et al. (2006) criticize our use of genetic distance as a proxy for cultural distance asserting that genetic distance is not correlated with cultural variables and it is only a proxy for transportation costs. As Desmet et al. (2006) have shown, however, genetic distance is highly correlated with several cultural distance measures. In Section IV we also show that its effects are not due to mis-measured transportation costs.

an experiment, people tend to be more trusting of other people who look like them. Also, McPherson et al. (2001) document that similarity breeds connection. We find this to be true also in our international sample. A one standard deviation increase in somatic distance decreases trust by 11%.

Besides serving as proxy for cultural distance, both somatic and genetic distance can be interpreted as a measure of genetic dissimilarities. Evolutionary pressures made people learn to differentiate between friends and foes on the basis of their appearance. Hence, these two variables might proxy for a genetic element in trust, rather than for a cultural one. Either way, however, they are a source of a potential bias that distorts the objective view of trustworthiness of a different population.

Having found evidence that cultural variables affect the subjective component of trust, we use these variables as instruments to identify the potential effect of these biases in trust on the level of economic exchange between two countries.

In a world where contract enforcement is imperfect and/or where it is impossible or prohibitively expensive to write all future contingencies into contracts, the degree of mutual trust is an essential component in any economic exchange. Lack of trust, thus, jeopardizes otherwise profitable trade and investment opportunities.

We start by looking at the effect of trust on international trade. We find that a higher level of relative trust can explain cross country trade beyond what extended gravity models can account for, even after accounting for the better estimates of transportation costs suggested by Giuliano et al. (2006). At sample means, a one standard deviation increase in the trust of the importer toward the exporter raises exports by 32%.

To gain more confidence on the causal nature of this result, we investigate whether the magnitude of this effect changes as theory predicts. If trust is an important component in the decision to buy a foreign good, it should matter the most for sophisticated goods, which greatly differ on quality. For this reason, we split the sample according to the classification in Rauch (1999). Consistent with trust causing trade, the effect is much stronger for differentiated goods than for commodities.

We then instrument trust with its cultural components (the history of wars and the commonality in religion and in ethnic origin). Since these factors are unlikely to have been driven by recent trade or investment flows, we can exclude the reverse causality question. When we include all three instruments, however, the Hansen J-test for overidentifying restrictions rejects

the exogeneity of these instruments. In fact, history of wars does have a direct effect on trade (albeit positive rather than negative). Hence we drop the history of wars from the set of instruments and insert it as an explanatory variable. When we do so, the Hansen J-test fails to reject that our instruments are exogenous.

We find the same results when we analyze the pattern of foreign direct investments. A country is more willing to make foreign direct investment in another country when it trusts its citizens more.

One potential objection to our analysis is that the different level of trust that the British exhibit toward the French is not due to a cultural bias in expectations, but to a cultural bias in behavior. If, for cultural reasons, the French derive a special pleasure from hurting British people, it is rational for the British to mistrust them. This cultural bias would lead to lower trust and lower trade, without any distortion in beliefs. To address this objection we look at the pattern of portfolio diversification across countries.

Given the nature of stocks, French companies cannot hurt British investors differently than German or Italian investors. Hence, if we find that the level of mistrust leads British to invest less in France, it is not because the French are less trustworthy toward them, but because they have a bias in the perception of trustworthiness of French people.

We find that portfolio investments are heavily tilted toward countries whose citizens are considered relatively more trustworthy: a one standard deviation increase in trust doubles the average share of investment in a country. Hence, we conclude that cultural biases operate through expectations and not through preferences.

While several papers have tried to explain the average level of trust in a country (e.g., La Porta et al., 1997; Alesina and La Ferrara, 2002), we are the first to estimate and try to explain the *relative* levels of trust across different nations. In addition, we are able to do so with a rich data set, which allows us to control for all country specific factors through country fixed effects and focus on the characteristics of the match.

In our attempt to explain several international exchange puzzles, our paper is similar to Portes and Rey (2005). As a key determinant, however, they do not consider trust, but differences in information, which they measure as telephone traffic between two countries and as the number of local branches of foreign banks. Our paper is also related to Morse and Shive (2006), Cohen (2007), De Groot et al. (2004), and Vlachos (2004). Morse and Shive (2006) relate portfolio choices to the degree of patriotism of a country. Cohen (2007) shows that employees'

bias toward investing in their own company is not due to information, but to some form of loyalty toward their company, which can easily be interpreted as trust. Both these papers, thus, illustrate one specific dimension in which cultural biases can affect economic choices. Our paper uses a broader definition of cultural bias and tries to show the pervasiveness of its effects. De Groot et al. (2004) and Vlachos (2004) study the effect of institutional quality and regulatory homogeneity on international exchange. While their findings can be explained in term of similar cultures breeding higher trust, they are also consistent with other, more traditional explanations (information, ease of access to legal remedies, etc.). We go beyond these results and show that trust matters even after we account for these institutional similarities.

Our paper can be seen as a generalization of Rauch and Trindade (2002). They find that the percentage of ethnic Chinese in a country helps predict the level of trade beyond the standard specification. We show this result is not specific to ethnic networks. Any cultural barrier (or lack thereof) significantly impacts trade and investments.

Our paper is also closely related to a new strand of literature that looks at the effect of culture on economic and political outcomes (Fernández and Fogli, 2007; Giuliano, forthcoming; Guiso, Sapienza, and Zingales, 2006; Tabellini, 2005). What differentiates our paper is the focus on one specific (and we think important) transmission mechanism: trust.

The closest papers to ours are Spolaore and Wacziarg (2006) and Bottazzi et al. (2006). Spolaore and Wacziarg (2006) claim that cultural similarities favor the transfer of information across countries and facilitate the catch-up. As evidence, they show a very strong correlation between differences in the level of development (or distance to the frontier) and genetic distance. Their result can be interpreted as another example of the pervasive effects of trust on economic activity. As we show in this paper, genetically similar countries trust each other more and, thus, can transfer technology faster and more effectively. Bottazzi et al. (2006) map the approach followed in our paper into a micro setting. They find that that venture capitalists are more likely to invest in start ups of countries they trust more, giving additional validity to the results in our paper.

The rest of the paper proceeds as follows. Section I presents a very simple model of the reason why trust might be so important. Section II introduces our data and shows that 40% of the variation in trust is not due to objective characteristics, but to idiosyncratic opinions. Section III relates relative trust to information and cultural variables. Section IV studies the effect of relative trust on trade, Section V on foreign direct investments, and Section VI on

portfolio investments. Finally, Section VII concludes.

I Theoretical Framework

How does trust enter economic decisions? One way to model trust is as a degree of precision. In assessing their opportunities to trade and invest, economic agents make some estimates on the value of these opportunities. The higher the trust on the counterpart, the better the precision of the estimate. If this were the only role trust played, its economic impact would be of a second order. Except for very high levels of risk aversion, trust modeled in this way is bound to have very little impact on decisions.

Alternatively, trust (or at least the cultural component of trust) can be modeled as a prior affecting people's decisions. To see how trust can have a first order effect through this channel we present an extremely simple model, based on a variation of Anderlini and Felli (2001).

Consider two parties, A and B , who can engage in some profitable trade. Let us assume that A has to spend a cost c to find out whether the total value created by this trade opportunity is $V^h > 0$ (with probability p) or $V^l < 0$ (with probability $1 - p$). After the cost c is paid, the value V^i becomes known (to both parties) with certainty. Thus, if the value is found to be $V^l < 0$, the trade opportunity will not be pursued.

If both parties behave properly, the value created by this opportunity is equally split between them. There is, however, the possibility that B behaves opportunistically (Williamson, 1985, would say with "guile") and succeeds in appropriating the whole surplus. For example, early investors in Russia, such as Kenneth Dart, experienced at their own expense the creativity of local managers in expropriating shareholders. One example was the organization of a shareholder meeting in a small town in the middle of Siberia after all the air tickets to that destination had been purchased. Another example is the aggressive use of reverse stock splits (when all Yukos capital was consolidated into 10 shares) to squeeze out minority investors. Note that both these tricks are technically legal, thus a good legal system might be insufficient in protecting against these extreme forms of opportunism.

We assume that A attributes probability π to this set of events. For simplicity, we ignore the similar problem faced by B . Then, the ex ante payoff of A is

$$(1) \quad p[1 - \pi] \frac{V^h}{2} - c.$$

Of course, A will pay the investigation cost c and exploit the opportunity (when profitable) if and only if (1) is positive. Hence, we have:

Proposition 1 *Regardless how big the trade opportunity V^h is and regardless how small the cost of investigation c is, if the level of trust $[1 - \pi]$ is sufficiently low, the trade opportunity will never be investigated and hence never undertaken.*

A good example of Proposition 1 is provided by the unrealized meeting between Steve Jobs and IBM. According to Steve Jobs in his memoirs, when in 1980 IBM was desperately looking for an operating system for PCs, it looked at Apple and invited him to a meeting. Steve Jobs, fearing that IBM would extract all the surplus from any possible negotiation, declined to go and, in so doing, missed the opportunity for Apple to become a Microsoft.⁴ Hence, lack of trust may lead to first order losses.

Thus far, we have only shown that if A expects to be taken advantage of by B with high probability, then A is unlikely to enter any economic transaction with B . The relevant question, then, is how he will form an expectation about this probability π . Note that the event “being taken advantage of” is not an easy one to document. If B takes advantage of her superior knowledge of her country legal code to “trick” A and appropriate all the surplus, this event will not appear in the official statistics as a crime, not even as a contractual violation. Hence, A will be forced to use a generic prior on the trustworthiness of citizens of country B , which he is going to update with his personal experience. We assume that people use their (possibly updated) priors in answering the Eurobarometer question on trust.

The question, then, is how do people form their priors. In Guiso, Sapienza, and Zingales (2004) we find that people’s expectations are deeply affected by the area where they were born, even if this differs from the area in which they live. Similarly, in Guiso, Sapienza, and Zingales (2006) we find that the level of trust among U.S. citizens is highly correlated to the level of trust prevailing in their country of origin. Hence, it is logical to assume that education plays a large role in forming these expectations. Furthermore, in Guiso, Sapienza, and Zingales (2003) we find that religious beliefs *of the trusting person* affect how much a person trusts another.

⁴We thank Luca Anderlini for suggesting this example.

Hence, religion should definitely play a role.

Note that none of these forces is properly “economic” in its nature. Hence, there is no reason to assume that these priors are necessarily unbiased. Take for example, the above-mentioned case of Italian historical education. The purpose of the teaching is to breed a sense of national identity. The Austrians are simply the necessary villain. Hence, the dislike toward Austrians is not the calculated result of a policy, but its undesired side effect: there are no heroes without villains. In other cases, the bias might be the real goal of a political maneuver (Glaeser, 2005). In both cases, however, the cultural forces that shape the formation of priors introduce a bias. In this paper, we will try to estimate the importance of this cultural bias in trust and its effects on economic exchange.

Note also that our beliefs are perfectly rational, in the common use of the word rational, which requires beliefs to be Bayesian. In fact, the Bayesian paradigm does not deal with the process of belief formation and does not address the question of the rationality of beliefs (Gilboa, Postlewaite, and Schmeidler, 2004).

Finally, negative priors are unlikely to be corrected fast. In Guiso, Sapienza, and Zingales (2007), for instance, we calculate that it takes 81 years of data to convince an individual who has a small (4%) probability of being cheated to invest in the stock market. Furthermore, if (1) is negative, A will never try to trade with B and hence will never collect enough data to overturn her prior. In fact, equation (1) provides a simple rationale for why it pays to build trust through team work or through trust-building exercises. If two people are put in the condition to interact when c is zero or they are forced to interact (under the threat of being fired) in situations where (1) is negative, they will start collecting data on the trustworthiness of their partners and possibly overcome some biased negative prior. They then will carry and apply this knowledge in future voluntary interactions.

In sum, the message of this extremely simple model is that lack of trust, which can be rooted more in cultural traditions than in reality, can cause first order economic losses and, furthermore, is likely to persist over time.

II Bilateral trust

A Measuring trust

We obtain our measures of trust from a set of surveys conducted by Eurobarometer and sponsored by the European Commission. The surveys were designed to measure public awareness of, and attitudes toward, the Common Market and other European Community institutions (see the Data Appendix for details). They have been conducted on samples of about 1,000 individuals per country in a set of the European Community countries. The number of countries sampled varies over time: there were 5 in 1970 (France, Belgium, The Netherlands, Germany and Italy), when the first survey was conducted, and have grown to 18 in 1995, the last survey to which we have access (besides the 5 countries above, included are Luxembourg, Denmark, Ireland, Great Britain, Northern Ireland, Greece, Spain, Portugal, East Germany, Norway, Sweden, Finland, and Austria).

One distinct feature of these surveys is that respondents have been asked to report how much they trust their fellow citizens and how much they trust the citizens of each of the countries belonging to the European Union. More specifically, they have been asked the following question: “I would like to ask you a question about how much trust you have in people from various countries. For each, please tell me whether you have a lot of trust, some trust, not very much trust or no trust at all”.

In some of the surveys, this same question was also asked with reference to citizens of a number of non-European Union countries, which include the United States, Russia, Switzerland, China, Japan, Turkey, and some Eastern and Central European countries (Bulgaria, Slovakia, Romania, Hungary, Poland, Slovenia, and Czech Republic).

As in every survey, there may be some doubts about the way people interpret the question. First, there is some ambiguity on how to interpret the answer. In a trust game, the level of trust maps into the amount of money you are willing to put at risk. Here, this mapping is missing. Second, we are concerned whether a high level of trust reflects a high trust in a generic citizen of a different country or a better ability to identify the trustworthy people in a different country, which translates into a higher willingness to trust them.

To address these doubts, in a separate survey we asked a sample of 1,990 individuals both the question above and the two following ones: 1) “Suppose that a random person you do not know personally receives by mistake a sum of 1000 euros that belong to you. He or she is aware that the

money belongs to you and knows your name and address. He or she can keep the money without incurring in any punishment. According to you what is the probability (a number between zero and 100) that he or she returns the money?"; and 2) "How good are you (very good, good, not very good, not good at all) in detecting people who are trustworthy?" (Guiso, Sapienza, and Zingales, 2007). We find that the first question is highly statistically correlated with the measure of trust used in this paper, while the second one is not (the sign is actually negative, albeit not statistically significant). Hence, these data provide evidence that the reported level of trust reflects the subjective probability that a random person is trustworthy

There can also be doubts on the external validity of this question. Glaeser et al. (2000), for instance, raise doubts on the validity of the World Values Survey trust question (which is similar to the one we use), by showing that it is not correlated with the sender behavior in the standard trust game (Berg et al., 1995). Sapienza et al. (2007), however, argue that the sender behavior in the trust game is not a good measure of trust, because it is affected by other regarding preferences. A better indicator of trust we can derive from the trust game is the sender's expectation about the receiver's behavior. Sapienza et al. (2007) show that the World Values Survey trust question as well as other similar trust questions are strongly correlated with these expectations. Furthermore, in a sample of Dutch households Guiso, Sapienza, and Zingales (2007) find a correlation between the answer to the WVS question on trust and the decision to invest in equity. Hence, this survey-based measure does have some external validity.

This World Values Survey-type of question measures generalized trust, the trust people have toward a random member of an identifiable group (e.g., McEvily et al., 2006; Guiso, Sapienza, and Zingales, 2004). This is different from personalized trust, the mutual trust people developed through repeated interactions (Greif, 1993), which is more important in relational contracts.

For our purposes, we have first re-coded the answers to the trust question setting them to 1 (no trust at all), 2 (not very much trust), 3 (some trust), and 4 (a lot of trust). We have then aggregated responses by country and year computing the mean value of the responses to each survey. The result is a rectangular matrix of trust from European countries to European and non-European countries which varies over time and in size. Obviously, for the European Union countries the matrix is symmetric in each given sample year.

Table 1 shows two measures of cross-national trust for the all the years in the sample. Panel A shows the average level of trust that citizens from each country have toward citizens of other countries. Panel B shows the percentage fraction of citizens that report that they trust a lot

their fellow citizens and the citizens of the other countries. There is considerable variation in the level of trust exhibited from one country to another. The average level of trust ranges from a minimum trust of 1.33 (the trust of Greeks toward Turks) to a maximum of 3.69 (the trust of Finns toward Finns).

Besides this variability, in Table 1 we find the same three regularities found in the small survey presented in the introduction. First, there are systematic differences in how much a given country trusts and how much it is trusted by others (see the last row and last column of Table 1). For instance, Panel B shows the Portuguese are those who trust the least (only 10% report that they trust a lot on average) and the Swedish those who trust the most (40% report they trust others a lot on average). This effect is clearly visible in Table 2, Panel A, which shows the estimated coefficient of a regression of the average trust of a country toward the others on country-of-origin dummies, country-of-destination dummies, and calendar year dummies.

In Figure 1 we report the fixed effects of country of origin relative to Ireland. A Swedish citizen trusts others 16% more on average than an Irish citizen and 26% more than a Greek citizen. Figure 2 reports the country-of-destination fixed effect relative to Ireland. On average a Swiss citizen is trusted 15% more than an Irish citizen and 42% more than a Turkish citizen. Interestingly, there is a correlation between trusting and being trusted. Nordic countries, for instance, are at the top of the level of trustworthiness and tend to trust others the most. While not a proof, this fact is suggestive that people excessively extrapolate the level of trustworthiness of their own countrymen to people from other countries. This result is also consistent with experimental evidence in Glaeser et al. (2000) and Sapienza et al. (2007).

If all (or almost all) the variation in the data were explained by the attitude citizens of a country have to trust (being trusted), there would be little hope for relative trust to be able to affect the patterns of bilateral trade. However, country-of-origin fixed effects and country-of-destination fixed effects leave a lot of variation unexplained.

Characteristics of the country expressing and receiving trust can (controlling for time variation) at most explain between 44% and 64% of the variability in trust depending on how the aggregate trust of a country's citizens is computed. There remains a considerable portion of the trust to citizens of a country that cannot be explained by characteristics of either one of the two countries. Table 2, Panel B, shows the matrix of the residual of the regression. It is this residual variation we are interested in explaining.

The second feature, similar to the one identified in the introduction, is that individuals tend

to be more trusting of their fellow citizens, as the larger values on the main diagonal of Table 2, Panel B, shows. There are a few exceptions (Danish and Swedish trust their neighbors from Norway even more than themselves), but they are very limited.

Finally, there are some idiosyncratic levels of mistrust as the survey presented in the introduction shows. The British tend to trust the French even less than they trust the Italians and the Spanish (only 8% of the British trust the French fully) and much less than they trust the Belgians and the Dutch. The French reciprocate, trusting the British as much as they trust (little) the Greeks.

III What explains subjective differences in trust?

The amount of trust a citizen of a country has towards his fellow citizens and the citizens of other countries will in general depend on general “objective” features of the country that gives and the country that receives trust as well as by some “subjective” views that are specific to the country pair. In order to capture “objective” determinants of trust we include a full set of country-of-origin (the country that expresses trust) and country-of-destination (the country that receives trust) fixed effects, as already done in Table 2. These fixed effects will capture any variable that is specific to the country and affects its average trust and trustworthiness, such as the level of protection that contracts receive, the enforcement granted by social punishment, and the constraints that individuals in a country have in their behaviors due to binding cultural norms. By controlling for fixed effects of origin and destination in trust, we are left with the “subjective” component of trust.

When we aggregate at the country level, variations in the subjective component of trust could be driven by differences in the information set or by match-specific biases that impinge on the view that the citizens of the two countries have of each other.

A Proxies for information

As measures of information, we use the geographical distance between the two countries, their proximity, and the commonality between the two languages. The geographical distance between two countries is the log of distance in kilometers between the major cities (usually the capital) of the respective countries.⁵ We also add a dummy variable to indicate when two countries share

⁵This measure is from Frankel et al. (1995). We also tried our regressions with alternative measures of distance between two countries and the results did not change substantially. Specifically, we used distance in radians of

a common land border (Frankel et al., 1995). As measure of language commonality we use an indicator variable equal to 1 if two countries share the same official language.⁶ As an additional measure of distance we use the transportation cost estimates introduced by Giuliano et al. (2006). These transportation costs are measured using shipping companies' quotes collected from Import Export Wizard (a shipping company providing transportation quotes around the world, <<http://www.importexportwizard.com>>.⁷

To measure the level of information citizens of one country have about citizens of other countries, we follow Portes and Rey (2005) and collect the number of times a country name appears in the headlines of a major newspaper in another country. For each country we searched the most diffused newspaper present in Factiva. For each pair of countries i and j we recorded the number of articles in the newspaper of country i that mentioned country j or citizens of country j in the headline. We divided this number by the number of total news on foreign countries.

In addition to these measures, we use the La Porta et al. (1998) classification of legal origin and construct a dummy variable equal to 1 when the legal system of two countries has derived from the same legal family (i.e., French, German, Scandinavian, English). Commonality in legal origin may in principle reflect the fact that citizens of countries having similar legal systems trust each other more because there is not so much fear of the unknown. The legal tradition, however, is likely to be very highly correlated with a common heritage and other cultural variables. Thus, controlling for common legal origin, we underestimate the potential effect of culture in biasing the perception of trustworthiness.

B Proxies for culture

We measure the impact of culture with four variables: the history of wars between two countries in the last millennium, the commonality in religion, the similarity in ethnic origin, and the similarity in physical appearances.

The first measure is the number of years a country pair has been engaged in a war since 1000 until 1970, where we use today's borders to decide whether a country was engaged in a war

the unit circle between country centroids (Boisso and Ferrantino, 1997) and the great circle between the largest cities (Fitzpatrick and Modlin, 1986).

⁶This variable is from Jon Haveman's website: <http://www.macalester.edu/research/economics/PAGE/HAVEMAN/Trade.Resources/TradeData.html>

⁷Specifically, we use the cost in U.S. dollars of transporting a 1000 kg of unspecified freight type load (including machinery, chemicals, etc.) with no special handling required, using the optimal combination of going through land and water to transport the goods.

against another. More precisely, we construct two measures. The first one measures the number of years any two countries were at war from 1000 till 1815 (Congress of Vienna) and the second one measures the same variable for the period 1815-1970. Presumably, countries that have a long history of wars and conflict will mistrust each other. For instance, the clear tendency of the French to trust the British less than any other country, as Table 2 shows, may reflect the 198 years these two countries have been in war since year 1000. Cultural formation at school is a vehicle for prolonging the memory of facts that took place many years ago (this is why we count wars over almost a millennium). Since “history is very much a mythical construction, in the sense that it is a representation of the past linked to the establishment of an identity in the present” (Friedman, 1992), we reconstruct wars using today’s borders.

The second proxy for culture is an indicator of religious similarity equal to the empirical probability that two randomly chosen individuals in two countries will share the same religion. We obtain this measure by taking the product of the fraction of individuals in country j and in country i who have religion k and then we sum across all religions k ($k =$ Catholic, Protestant, Jewish, Muslim, Hindu, Buddhist, Orthodox, no-religion, other affiliation). To calculate this variable we use the percentage of people belonging to each religious denomination from the World Values Survey (see Guiso, Sapienza, and Zingales, 2003).

Our third measure is the commonality in ethnic origin. To measure this variable we use the genetic distance between indigenous populations as developed by Cavalli-Sforza et al. (1996).⁸ This measure is based on the existence of genetic or DNA polymorphism (a situation in which a gene or a DNA sequence exist in at least two different forms [alleles]). A simple example of polymorphism is the ABO blood groups classification. While ABO alleles are present in all populations, the frequency of each allele varies substantially across populations. For example, the O allele is frequent in 61% of African populations and 98% of American Natives populations. These frequency differences in alleles hold true for other genes or DNA sequences, as well. As a first approximation, Cavalli-Sforza et al. (1996) sum the differences in frequencies of these polymorphisms to derive a measure of how different the genetic composition of two populations is.⁹

We use genetic distance as a measure of cultural similarity between two populations. Two-thirds of Europeans descend from Asian invaders and one-third from African invaders (Cavalli-

⁸See also Menozzi et al. (1978).

⁹For a more detailed description of this measure see Appendix A.2.

Sforza, 2000). As Ammerman and Cavalli-Sforza (1985) have shown, the genetic distance between two indigenous populations today reflects the history of colonization of Europe during the Neolithic Age. Since this measure is also highly correlated with a population’s linguistic roots, we use it as a proxy for cultural difference between two countries.

As an alternative measure of distance between two populations, we derive from Biasutti (1954) an indicator of somatic distance, based on the average frequency of specific traits in the indigenous population. For heights, hair colors (pigmentation), and cephalic index (the ratio of the length and width of the skull), Biasutti (1954) draws a map of the prevailing traits in each country in Europe. In each trait, European Union countries fall into three different categories. For hair color, for instance, we have “Blond prevails”, “Mix of blond and dark”, and “Dark prevails.” We arbitrarily assign the score of 1 to the first, 2 to the second and 3 to the third. We then compute the somatic distance between two countries as the sum of the absolute value of the difference in each of these traits (see Data Appendix A.3 for more details).

Besides proxies for cultural distance, both somatic and genetic distances can be interpreted as measures of genetic dissimilarities. In the evolutionary process, people have learned to differentiate between friends and foes on the basis of their appearance. Hence, these two variables might proxy for a genetic element in trust, rather than for a cultural one. Either way, however, they are a source of a potential bias that distorts the objective view of trustworthiness of a different population.

The summary statistics of these variables are reported in Table 3 (Panels A, C, D, and E), computed for the different samples used in the paper. Table 3, Panel B presents the cross correlation matrix (after controlling for country-of-origin and country-of-destination fixed effects), which shows that somatic and genetic distances are highly correlated (0.53).

C Empirical results

In Table 4 we report the results of our estimates on the determinants of trust. Our dependent variable is average trust.¹⁰ Since all the regressions contain a fixed effect for the country trust comes from and a fixed effect for the country with respect to which trust is expressed, it is as if we isolate the subjective component of trust.

To avoid understating the standard errors due to repeated observations, we follow Bertrand,

¹⁰We obtained similar results (not reported) when we use as dependent variable the percentage of individuals trusting a lot.

Duflo, and Mullainathan (2004) and collapse the data by taking time averages of our right and left-hand side (after partialling out time effects). In addition, we cluster the standard error at the pair-of-countries level.¹¹

Table 4, Panel A shows the results for the whole sample, while Panel B focuses on the sample of European Union countries used in our regressions on the effects of trust on trade, foreign direct investment, and portfolio investments.

We start by regressing the average level of trust of citizens of country i towards citizens of country j on our proxies for differences in the information sets (Column 1 in Table 4, Panel A). If familiarity breeds trust, we should expect that distance and common language have a positive effect on trust.

More information, however, allows to make more precise inferences about other populations' trustworthiness, which does not necessarily imply more or less trust on average.

Common language has a positive and significant effect on trust. Having a common language increases trust by 10 percentage points, which is roughly one-fourth of a standard deviation.

A greater distance between two countries reduces the level of trust between them. One standard deviation increase in log distance decreases trust by 15 percentage points, corresponding to 38% of its standard deviation. By contrast, the common border dummy has a negative sign, but it is not statistically significant.

In column 2 we introduce our cultural variables. The results show that cultural factors are overall important. The three cultural proxies are jointly statistically significant with an F-test of 7.00. Religious similarity has a positive impact on trust: compared to a case where no common religion is shared, a match where 90% of the citizens share the same religion (e.g., Italy and Spain) raises trust by 15 percentage points (corresponding to 40% of its standard deviation).

The coefficient of genetic distance shows that citizens of a country tend to be more trusting of citizens of countries who are genetically closer. A one standard deviation increase in genetic distance lowers bilateral trust by 10 percentage points, corresponding to 27% of its standard deviation. The number of years two countries have been at war has a negative effect on match-specific trust, though it is not statistically significant.

In column 3 we break down the history of wars into wars of the last two hundred years (after the Vienna Congress) and those between 1000 and 1815. As one would expect, if these cultural

¹¹Since we have both the trust from France to Great Britain and from Great Britain to France, and all the bilateral regressors for this pair of countries is unchanged, we need to assume that their residuals are not independent. If we do not perform this correction, the standard errors are much lower.

biases against an enemy fade over time, the impact of recent wars is more than five times that of distant wars, but neither effect is statistically significant.

In column 4 we add somatic distance to this specification. This variable has a negative and statistically significant effect on trust. One standard deviation increase in somatic distance lowers bilateral trust by 4 percentage points, corresponding to 11% of its standard deviation. Not surprisingly (given the high correlation with genetic distance), the introduction of somatic distance lowers the impact of genetic distance by 40%, making it significant only at the 10% level. Since both variables are trying to capture the same dimension, in the following regressions we will drop the least significant of the two, i.e., genetic distance.

All these effects are not driven by the home bias in trust. In fact, in regressions 1-4 we insert a variable equal to 1 when the country trusting is equal to the country trusted. In the remaining regression, the diagonal is dropped since the variable press coverage is not defined for the home country.

In column 5 we add to the previous specification a direct measure of the knowledge that citizens of country i have of citizens of country j measured by press coverage. The coefficient is negative and statistically significant. The most likely interpretation of this result is that newspapers tend to report bad news and this creates a negative bias, which is stronger the more news about a country are reported.¹²

Alesina and La Ferrara (2002) document that in the United States differences in income are important factors in explaining trust within a community. In column 6 we try to see whether these ideas also apply to trust across communities (or countries) by inserting the relative difference in gross domestic product per capita as an additional regressor. Confirming Alesina and La Ferrara (2002), this variable has a negative and statistically significant effect on trust, but its insertion does not change the magnitude of the coefficients of the other variables substantially.

One variable that can be interpreted as a proxy for differences in the information set and/or

¹²To understand whether relative trust is driven by information or, alternatively, some perception of the pleasantness of individual in other countries we construct a variable that measures perceived pleasantness. In Eurobarometer 38.0 survey respondents from six European countries (France, West Germany, Great Britain, Northern Ireland, Spain, and Italy) were asked to rank citizens from other 12 European countries in terms of their perceived pleasantness. The following question was asked: "Which countries of the European Community are in your opinion the most pleasant (at most 3 answers possible)?" We coded 1 if country j was mentioned by citizen of country i and we use the percentage of times in which country j was mentioned by all the citizens of country i , as a measure of how much citizens of country i think citizens of country j are pleasant people. Interestingly, when we introduce the percentage of citizens of country i that have mentioned citizens of country j (non reported regression) as the most pleasant citizens in European Union, we find that the coefficient of perceived pleasantness is positive and significant.

cultural distances is the commonality of legal origin. We insert it in column 7. It has a positive but not statistically significant effect on trust. As expected, it captures some of the effect of cultural distance, reducing the effect of both religion and genetic distance, but both remain statistically significant. For this reason, we control for commonality of legal origin in all our subsequent regressions. Note that for the reason stated above this is clearly an overcontrolling, which biases against finding any effect of our cultural variables.

In Panel 4.B we re-estimate all the specifications reported in Panel 3.A restricting the sample to the European Union countries, which we will use in our trade and investment analysis. The effects are very similar to the ones found in the whole sample. For this sample, we also have the measure of transportation costs computed by Giuliano et al. (2006). They claim that genetic distance is just a proxy for transportation costs, which are mis-measured by the log distance between two countries. To address this concern, in column (8) we add transportation costs to the regression. Transportation costs have a negative effect on trust, but this effect is not statistically significant. More importantly, all the other effects (in particular the one of somatic distance) are not affected.

IV The Effect of Trust on Trade

Now that we have a better sense of the determinants of relative trust we can explore what its effects are. Is it true, as the model in Section I suggests, that trust (or lack thereof) can have first order economic effects? More importantly, can we establish that the subjective component of trust have an impact on economic exchange? To do so, we try to see what the effect of trust is when inserted in traditional models of economic exchange across countries. We start with trade of goods and services.

A Data

The first variables we use is data on trade of goods and services assembled by Statistics of Canada. The World Trade Database is derived from United Nations COMTRADE data. Its advantage over other datasets is that it provides bilateral trade statistics at the 4-digit SITC (Standard International Trade Classification) level.¹³ This database provides time-series of trade value, disaggregated according to trading partner and 4-digit SITC level, for the period

¹³We also used an aggregate OECD dataset, based on custom data, and found very similar results.

1970-1996. Of this long panel we only use data for the years that trust survey data are available (1970, 1976, 1980, 1986, 1990, 1993, 1994, and 1996).

To ensure complete homogeneity of the sample as far as bilateral trade conditions are concerned, we restrict our sample to countries belonging to the European Union (16 countries). For the countries that entered the European Union after 1970 we include observations only after the admission date (for example, Greece is included in the sample only for the years after 1981).

The sample statistics for the data are reported in Panel C of Table 3.

B Empirical Results

Table 5, Panel A, estimates the effect of trust on the amount of trade between two countries. The dependent variable is the logarithm of the total exports from country i to country j aggregated over 4-digit SITC industries. Hence, we do not have any zero flow observation.

Column 1 presents the standard gravity regression (e.g., Anderson and van Wincoop, 2003), with the addition of our measure of trust of the importing country toward the exporting one, the Giuliano et al. (2006) measure of transportation costs, country fixed effects both for the importing and the exporting countries, and calendar year dummies.¹⁴ The standard errors reported in brackets are clustered at the pair-of-country level.

As in the standard gravity equation, a greater distance between two countries negatively affects the level of exports, while the presence of a common border and of a common language positively affects it. All these effects are highly statistically significant.

Unlike the standard gravity equation, the GDP of the importing country and the GDP of the exporting country are not very economically significant. The reason is that we control for exporting and importing country fixed effects. Hence, the coefficient on the GDP only captures the effect of the time series variation in these variables.

As in Giuliano et al. (2006) the transportation costs measure has a negative effect on trade, which is statistically significant at the 5% level.

After controlling for all these variables, our measure of trust has a positive and statistically significant effect on trade. The effect is also economically very large. One standard deviation increase in trust increases exports to a country by 11 percentage points.

There are at least three reasons to worry about this ordinary least squares result. First, while

¹⁴Anderson and van Wincoop (2003) argue against the insertion of “remoteness” into the gravity equation. Our results are unchanged if we add a measure of remoteness.

it is possible that trust fosters trade, it is equally possible that trade breeds trust. In fact, even our simple model in Section I suggests that interaction can breed trust. The second problem is that relative trust can capture the effect of other omitted variables (for example the existence of established trading outposts, as suggested by Rauch and Trindade, 2002). Finally, measurement error in the variable trust may affect our results. To address these concerns we instrument our trust variable, by using the generalized method of moments estimator (GMM-IV), which allows for heteroskedasticity of unknown form.

As instruments, in column 2 of Table 5, Panel A, we use the cultural determinants of trust (history of war, commonality of religion, and somatic distance). Since we have already shown that these variables are correlated with relative trust, these will be valid instruments if we can argue that they do not have a direct effect on trade.

Among these instruments, the most problematic one is the history of wars. It is not only possible, but also likely, that wars disrupt trade or open new trade routes depending on the war. In fact, when jointly used, the three instruments do not pass the Hansen J-test for overidentifying restrictions.

For this reason, in column 3 we drop the number of years at war as an instrument and we control for it in the regression. Interestingly, the number of years at war has a positive and statistically significant effect on trade (suggesting that either wars explode between trading partners or that wars facilitate commerce).

These two instruments pass the Hansen J-test for overidentifying restrictions. So if we believe that at least one is a legitimate instrument, both of them are. It is hard to think why somatic distance might have a direct effect on trade. The most plausible objection is the one raised by Giuliano et al. (2006), who claim that the somatic or genetic distances are capturing the effect of transportation costs. Geography - claim Giuliano et al. (2006) - clearly had an impact on Neolithic invasions, which historically determined the somatic/genetic similarity across populations. Geography, however, still impacts transportation costs, which clearly impact trade. Hence, if transportation costs are not controlled for, somatic distance might capture the effect of the omitted transportation costs. Since we control for the Giuliano et al. (2006) measure of transportation costs (in addition to the standard log distance), we are not subject to this criticism.

One additional source of concern is the remarkable difference between the estimated coefficient of trust in the OLS regression and the GMM-IV one. A possible explanation is that our

instruments may be only weakly correlated with trust. If this is the case, then the two stage least squares regressions will be biased and the standard errors misleading. To address this concern, we compute the F statistics for the joint hypothesis that the instruments' coefficients are zero in the first stage regression and report it at the bottom of the table. In this specification, the F-test is 18, comfortably above the threshold recommended by Stock and Yogo (2002).

An alternative explanation for the difference in the coefficient is that our trust measure is a noisy measure of the true trust between two countries (a very likely possibility). If this is the case, the increase in the coefficient is the result of a reduction in the standard attenuation bias present when variables are measured with error. If this is the case, the true economic effect is closer to the GMM-IV estimates, which suggests a much larger result. One standard deviation increase in trust increases export to a country by 63 percentage points.

In columns 5 and 6 we re-estimate the OLS and GMM-IV by introducing the commonality in legal origin dummy. As for the trust regression, this variable can have two interpretations. It can capture the fact that similar institutions foster more trade because they provide more guarantee to the parties involved (De Groot et al., 2004; Vlachos, 2004). Alternatively, it can capture part of the cultural effect. Consistent with this latter interpretation, the coefficient on trust decreases, especially in the GMM-IV. Nevertheless, it remains highly economically and statistically significant.

Another possible objection is that trust, especially the subjective component of trust, might pick up some other cultural similarities such as commonalities in taste. If two countries share the same taste for consumption (for example, for cheese), they might trade more. To address this problem we construct an index of similarity in consumption patterns across countries. This index is calculated computing domestic consumption as the sum of gross domestic production in each ISIC code plus import and minus export between 1989 and 1994. For each pair of countries, then, we compute the correlation in consumption across ISIC sectors.¹⁵

When we insert this variable in the OLS specification of our trade regression, the sign is negative but not statistically significant. In the GMM-IV the sign is negative and statistically significant at the 10% level. In both cases, however, the size and the statistical significance of the coefficient of trust are unaffected.

In Table 5, Panel B, we test whether the impact of trust on trade varies according to what

¹⁵Data on consumptions are calculated extracting data from the following dataset <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:21085384~pagePK:64214825~piPK:64214943~theSitePK:469382,00.html>

theory would suggest. Our hypothesis predicts that trust should matter more for goods whose quality can differ more. For these goods, contracts are more difficult to write and hence they are more likely to leave gaps, where trust plays a very important role.

For this reason, we split the sample according to Rauch's (1999) goods classification. Rauch distinguishes between goods traded in an organized exchange, goods with a reference price, and differentiated goods. Clearly, goods can be traded in an organized exchange only if they are very homogenous in quality. Similarly, they can have a reference price, only if they are not too dissimilar in their intrinsic quality. Hence, Rauch's (1999) classification can also be interpreted as a classification of the degree of trust-intensiveness of the different goods.¹⁶

The first four columns of Table 5, Panel B, present our basic regressions (both OLS and GMM-IV) for the subgroup of industries classified as organized exchange goods, while the last four columns present the results for industries classified as differentiated goods. In these regressions we use data at the 4-digit SITC level. Given the level of desegregation, some zero observations are present even if we analyze trade among countries in the European Union, which trade intensively with each other. To address this, following Linders and de Groot (2006), we eliminate the zero flow observations.

The effect of trust is consistently stronger for differentiated goods: trade increases 39% versus 5% percent in response to one-standard deviation increase in trust. This difference is statistically significant at the 1% level.

The magnitude of this effect is not very different from the one found by Rauch and Trindade (2002). They find that the presence of ethnic Chinese networks increases the amount of bilateral trade in differentiated goods by 60%.

As an aside, it is interesting to notice the differential effect of transportation costs for goods traded in organized exchanges and differentiated goods. That transportation costs reduce trade much more for commodities than for differentiated goods reassures us that the Giuliano et al.'s (2006) proxy for transportation costs is a good one.

¹⁶Rauch (1999) made a "conservative" and a "liberal" classifications of industries. To minimize ambiguity we excluded industries that were classified in different ways under the two classifications and run our regressions only for organized exchange goods and differentiated goods.

V Foreign direct investment

If the subjective component of trust has an impact on trade, it should have even a bigger impact on the willingness to invest in a country. For this reason, we study the impact of trust on foreign direct investments (FDI).

A Data

Statistics on FDI transactions and positions are based on the database developed by the OECD Directorate for Financial, Fiscal and Enterprise Affairs. These statistics are compiled according to the concept used for balance of payments (flows) and international investment positions (stocks) statistics. We only use data for countries that belong to the European Union for the years when trust survey data are available (1970, 1976, 1980, 1986, 1990, 1993, 1994, and 1996).

According to the classification used in the balance of payment accounts, a foreign direct investment enterprise is an incorporated enterprise in which a foreign investor (a resident of another country) has at least 10% of the shares or voting power. As for trade, we restrict our attention to country members of the European Union, where the same rules for FDI apply. Summary statistics are reported in Table 3, Panel D.

B Empirical Results

Table 6 reports the effect of trust of people of country i towards people of country j on the foreign direct investments of country i in country j . The dependent variable is measured as the log of the stock of FDI from country i to country j . The standard errors reported in brackets are clustered at the pair-of-country level.

Column 1 reports the basic specification where, in addition to mean trust, we have country fixed effects, border, language, distance, press coverage, and number of years at war.¹⁷ The impact of trust is positive and statistically significant. One standard deviation increase in trust raises the level of FDI by 32%. This effect increases six times when we use instrumental variables (column 2). This might be a problem of weak instruments since the F-test on the coefficients of the instruments in the first stage regression is equal to $F(2,73)=9.19$. As reported in the table, these two instruments pass the Hansen J-test for overidentifying restrictions.

¹⁷Since number of years at war was significant in the trade regressions, we also inserted it here. Dropping it does not impact the significance and the magnitude of other results.

That the magnitude of the impact of trust on FDI is twice as large as the impact on trade is not surprising. Since FDI are long-term investments, they are more subject to contract incompleteness than any trade, even the trade of differentiated goods. As such, they should be very trust intensive.

In columns 3 and 4, we insert the common origin of the law dummy. Not surprisingly, this dummy has a positive and statistically significant effect on the level of FDI. In fact, countries with the same origin of the law have more than 100% more FDI in each other. This result is consistent with Bottazzi et al. (2006), who find that venture capitalists are more likely to invest in start ups of countries they trust more. When we control for the common origin of the law dummy, the F-test of excluded instruments in the first stage regression is 13.16, comfortably above the Stock and Yogo (2002) threshold; hence weak instruments are not a problem.

In columns 5 and 6, we insert the Giuliano et al. (2006) measure of transportation costs. Transportation costs should not have a direct effect on FDI but could have an indirect one. Transportation costs act as a barrier to trade, which might induce direct investment as a substitute to export. Indeed we find a positive coefficient that is statistically significant only in the GMM-IV specification. If anything the impact of trust is increased.

VI International Portfolio Diversification

That culture affects trust and, through it, trade does not necessarily imply that culture affects it through its impact on people's prior. An alternative interpretation is that it works through preferences. If, for cultural reasons, British derive a special pleasure from hurting French, it is rational for the French to mistrust them. This cultural bias would lead to lower trust, lower trade, and lower FDI.

To investigate this hypothesis, we focus on the pattern of portfolio investments. By construction, portfolio investments involve investments in minority positions in foreign companies. If British derive a special pleasure from hurting French, they will be unable to do it selectively when the French have invested in a minority position, because their actions would mostly affect the other investors, who are the majority and are unlikely to be French.

This is a very demanding test, because the effect of trust on portfolio allocations is likely to be small for two reasons. First, most portfolio investments are in traded securities that are heavily monitored and regulated, where the risk of misappropriation is somewhat limited. Second, we

have data only for portfolio allocations of mutual funds, which are run by sophisticated managers less likely to be subjected to this type of biases.

This test is also a robustness test on our exclusion restrictions. Religion similarity and somatic distance are unlikely to have any direct effect on the patterns of trade, but they definitely have no direct effect on portfolio diversification.

A Data

Ideally, we would like to have data on the international diversification of individual investors. These data, however, are not available on a consistent basis. Hence, we resort to portfolio data from institutional investors.

The data we use is from Morningstar, which has kindly provided us with the geographical breakdown of equity investment of European mutual funds disaggregated by country of origin. We exclude funds located in Luxembourg and Ireland when they are affiliated with companies located in other European countries.

This dataset includes all funds that report their positions to Morningstar (including balanced and flexible funds, for example). Bonds investments, however, are not included. Sample statistics are reported in Panel E of Table 3.

B Empirical Results

Table 7 reports the empirical results. The dependent variable is the percentage of the equity portfolio of mutual funds located in country i that is invested in equity of country j , where $i \neq j$.

In a traditional portfolio model, the only explanatory variables would be the inverse of the covariance of stock market returns and the weight of the stock market of country i in the world portfolio. Since we include country fixed effects (and the data are just one cross section), this latter variable is absorbed by them. Hence, the benchmark model would have only the inverse of the covariance of stock market returns as explanatory variable.

To this benchmark we add the standard proxies for information: a dummy for common borders, a dummy for common language, the logarithm of the distance between the two capitals, and the number of years at war.

Interestingly, of all these variables only the number of years at war is statistically significant. As for trade and FDI, the effect is positive. Countries that have fought more have more

interchange.

As column 1 (Table 7) shows, the degree of trust country i has toward country j has a positive and statistically significant effect on the percentage of equity invested by country i in country j . One standard deviation increase of the trust of people in country i toward people in country j increases the portfolio share of country i in country j by 3 percentage points, which corresponds to an 88% increase in the mean share.

In column 2 (Table 7) we instrument our measure of trust with the two cultural instruments (commonality of religion and somatic distance). The coefficient of trust doubles. The F-test on the coefficients of the instruments in the first stage regression is equal to $F(2,64)=13.53$, ruling out the problem of weak instruments. As reported in the table, these two instruments pass the Hansen J-test for overidentifying restrictions.

In columns 3 and 4 we re-estimate the same regression respectively by OLS and GMM-IV after inserting press coverage. As in Portes and Rey (2005), press coverage has a positive and statistically significant effect on portfolio shares. Needless to say, this correlation could reflect the incentives that national press has in reporting information about countries where national investors invest more. Controlling for this additional variable, however, does not affect the previous results.

In columns 5 and 6 we control for the same origin of the law. Not surprisingly, this variable has a positive and statistically significant effect on the portfolio investments. This effect is very strong: on average, a country invests 8 percentage points more in equity of another country if they share the same legal origin. As for trade and FDI, the effect of commonality of legal origin captures some of the effect of trust, and the coefficient of trust in the GMM-IV regression drops by half. In this case, it also becomes statistically insignificant.

To test whether the effect of common legal origin is due to similarity in culture or to familiarity in the law regulating security investments, we follow Vlachos (2004) and construct an index of similarity in security law based on the work of La Porta et al. (2005). This measure is computed as the sum of the absolute difference between the score in the 21 dimensions of the security law analyzed by La Porta et al. (2005).

In columns 7 and 8 we replace the commonality of legal origin, with this measure of distance in security law. This variable has a positive and statistically significant effect on the amount of investments, suggesting that citizens in countries with bad investment protection want to invest more in countries with better protection of investors. This result rejects the hypothesis that

the effect of commonality in legal origin captures a familiarity effect. As expected, the effect of trust is positive and statistically significant both in the OLS and in the GMM-IV specification.

Overall, these results suggest that an increase in trust has an economically and statistically significant effects on the level of trade, direct investments, and portfolio investments. These effects do not seem to be driven by differences in preferences, but by differences in priors across countries.

VII Conclusions

In this paper we show that trust among European Union countries differs in systematic ways, which are correlated to the different cultural heritages. Even after controlling for a country's objective characteristics and for differences in the information sets, historical and cultural variables affect the propensity of the citizens of a country to trust the citizens of another country.

These differences in trust seem to have economically important effects on trade, portfolio investments, and foreign direct investments. These macro results are confirmed in a micro study by Bottazzi et al. (2006). They find that the trust of the country of origin of a venture capitalist toward another country positively affects his propensity to invest in a start up of that country.

Note that both these results are obtained within the boundaries of the old European Union, which comprised fairly culturally homogenous nations. That culture represents an important barrier to integration even inside the old European Union suggests that its effect on world trade might be much larger.

While our results are suggestive that these effects can be economically important, they do not allow us to derive any welfare conclusion. First, we identify these effects by looking at the impact of relative trust on the relative level of trade. As a result, our methodology cannot identify the impact of the average level of trust on the total volume of trade and hence the welfare implications of our results. If we assume that the effect estimated using within country variations applies also between countries, we then have that the level of trustworthiness makes Switzerland trade 40% more than Ireland and Turkey 73% percent below. Second, we document only effects on quantities not on welfare. If it is costless for British to substitute French cheese with identical cheese coming from other countries they trust more, then the utility loss they suffer could be minimal. If that is not the case, then the welfare losses can be substantial. Only future research will be able to tell.

References

- Alesina, Alberto and Eliana La Ferrara**, 2002, “Who Trusts Others?”, *Journal of Public Economics*, 85(2), 207-34.
- Ammerman, Albert, J., and Luca L. Cavalli-Sforza**, 1985, *The Neolithic Transition and the Genetics of Populations in Europe*, Princeton. Princeton University Press.
- Anderlini, Luca and Leonardo Felli**, 2001, “Costly Bargaining and Renegotiation”, *Econometrica* 69: 377-411.
- Anderson James, E. and Eric van Wincoop**, 2003, “Gravity with Gravitas: a Solution to the Border Puzzle”, *American Economic Review*, 93: 170-92 .
- Arrow, Kenneth**, 1972, “Gifts and Exchanges,” *Philosophy and Public Affairs*, 1: 343- 362.
- Becker, Gary**. 1957, *The economics of Discrimination*, Chicago. University of Chicago Press.
- Berg, Joyce, John Dickhaut, and Kevin McCabe**, 1995 “Trust, Reciprocity, and Social History”, *Games and Economic Behavior* 10: 122-42.
- Bertrand, Marianne, Duflo, Esther and Mullainathan, Sendhil**, 2004, “How much should we trust differences-in differences Estimates?”, *The Quarterly Journal of Economics*, MIT Press, vol.119(1): 249-275
- Biasutti, Renato**, “Le Razze e i popoli della terra”, UTET, Turin, 1954, vol. 1
- Boisso, Dale, and Michael Ferrantino**, 1997 “Economic Distance, Cultural Distance, and Openness: Empirical Puzzles”, *Journal of Economic Integration* 12: 456-484.
- Bornhorst, Fabian, Andrea Ichino, Karl Schlag and Eyal Winder**, 2004, “Trust and Trustworthiness among Europeans: South-North Comparison”, European University Institute.
- Bottazzi, Laura, Marco Da Rin, and Thomas Hellmann**, 2006, “The Importance of Trust for Investment: Evidence from Venture Capital”, Working paper.
- Burns, Paul, Andrew Myers and Andy Bailey**, 1993, “Cultural Stereotypes and Barriers to the Single Market”, 3i/Cranfield European Enterprise Centre, Cranfield School of Management Working Paper SWP 20/93
- Cavalli Sforza, Luca L.**, 2000, *Genes, People, and Languages*, Berkeley, University of California Press.
- Cavalli-Sforza, Luca L., Paolo Menozzi and Alberto Piazza**, 1996, *The History and Geography of Human Genes*, Princeton, Princeton University Press.
- Cochrane, John**, 1996, “A cross-sectional test of an investment- based asset pricing model”, *Journal of Political Economy*, 104: 572.621.
- Cohen, Laurent**, 2007, “Loyalty Based Portfolio Choice”, *Review of Financial Studies*, forthcoming.
- Cornell, Brad, and Ivo Welch**, 1996, “Culture, Information and Screening Discrimination”, *The Journal of Political Economy*, 104-3: 542-571.

- DeBruine, L.**, 2002, "Facial Resemblance Enhances Trust", *The Proceeding of the Royal Society* 269: 1307-1312.
- De Groot, Henri, L. F., Gert-Jan Linders, Piet Rietveld and Uma Subramanian** 2004, "The Institutional Determinants of Bilateral Trade Patterns," *Kyklos*, 57 (1), 103123.
- Desmet, Klaus, Le Breton, Michel, Ortuño Ortín, Ignacio and Weber, Shlomo**, 2006, "Nation Formation and Genetic Diversity", *CEPR Discussion Papers* 5918.
- Fernández, Raquel and Alessandra Fogli**, 2007, "Culture: An Empirical Investigation of Beliefs, Work, and Fertility," Working Paper.
- Fitzpatrick, Gary L., and Marilyn J. Modlin**, 1986, *Direct-Line Distances*, Lanham, MD. The Scarecrow Press.
- Frankel, Jeffrey, Ernesto Stein, and Shang-jin Wei**, 1995, "Trading blocs and the Americas: The natural, the unnatural, and the super-natural", *The Journal of Development Economics*, 47:61-95.
- French, Kenneth and Poterba, James**, 1996, "A cross-sectional test of an investment-based asset pricing model", *Journal of Political Economy*, 104: pp. 572.621.
- Friedman, Jonathan**, 1992, "Myth, history and political identity", *Cultural Anthropology*, 7(2): 194-210.
- Gilboa, Itzhak, Andrew Postlewaite, and David Schmeidler**, 2004, "Rationality of Belief. or: Why Bayesianism is Neither Necessary nor Sufficient for Rationality", working paper University of Pennsylvania.
- Giuliano, Paola** , forthcoming, "On the Determinants of Living Arrangements in Western Europe: Does Cultural Origin Matter", *Journal of the European Economic Association*.
- Giuliano, Paola, Antonio Spilimbergo, and Giovanni Tonon**, 2006, "Genetic, Cultural and Geographical Distances", *IZA Discussion Papers* 2229.
- Glaeser, Edward, David Laibson, José A. Scheinkman and Christine L. Soutter**, 2000, "Measuring Trust", *Quarterly Journal of Economics* 115(3): 811-846.
- Glaeser, Edward**, 2005, "The Political Economy of Hatred", *Quarterly Journal of Economics*, 120(1): 45-86.
- Greif, Avner**, 1993, "Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders' Coalition", *American Economic Review*, 83: 525-48.
- Guiso, Luigi, Paola Sapienza and Luigi Zingales**, 2003, "People's opium? Religion and Economic Attitudes", *Journal of Monetary Economics* 50:225-282.
- Guiso, Luigi, Paola Sapienza and Luigi Zingales**, 2004, "The Role of Social Capital in Financial Development", *The American Economic Review*.94: 526-556
- Guiso, Luigi, Paola Sapienza and Luigi Zingales**, 2006, "Does Culture affect Economic Outcomes?", *Journal of Economic Perspectives*, vol.20(2): 23-48.

- Guiso, Luigi, Paola Sapienza and Luigi Zingales**, 2007, "Trusting the Stock Market", University of Chicago.
- Hansen, Lars Peter**, 1982 "Large Sample Properties of Generalized Method of Moments Estimators", *Econometrica* 50: 1029-54.
- La Porta, Rafael, Florencio López-de-Silanes, Andrei Shleifer, and Robert Vishny**, 1998, "Law and Finance", *Journal of Political Economy* 106: 1113-55.
- La Porta, Rafael, Florencio López-de-Silanes, Robert Vishny, and Andrei Shleifer**, 1997, "Trust in Large Organizations", *American Economic Review*, 87: 333-38
- La Porta, Rafael, Florencio López-de-Silanes, and Andrei Shleifer**, 2006, "What Works in Securities Laws?", *Journal of Finance*, 61(1): 1-32.
- Linders, Gert-Jan M and Henri L.F. de Groot**, 2006, "Estimation of the gravity equation in the presence of zero flows", *Tinbergen Institute Discussion Paper*.
- McCallum, John**, 1995, "National Borders Matter: Canada-U.S. Regional Trade Patterns" *American Economic Review*. 85: 615-23.
- McEvily, Bill, Weber, Roberto, Bicchieri, Cristina and Violet Ho**, 2006, "Can groups be trusted? An experimental study of collective trust", In R. Bachmann and A. Zaheer (Eds.) *The Handbook of Trust*, Edward Elgar Publishing.
- McPherson, Miller, Smith-Lovin, Lynn and Cook James, M.**, 2001, "Birds of a feather: Homophily in social networks", *Ann. Rev. Sociology*. 27 415-444.
- Menzio, P., A. Piazza, and Luca L. Cavalli-Sforza**, 1978, "Synthetic maps of human genes frequencies in Europe", *Science*, 201:786-92.
- Morse, Adair and Sophie Shive**, 2006, "Patriotism in your Portfolio", *working paper University of Michigan*.
- Nicita, Alessandro and Marcelo Olarreaga**, 2006, "Trade, Production and Protection, 1976-2004", *World Bank Economic Review* 21(1).
- Obsfeld, Maurice and Kenneth Rogoff**, 2001, "The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?", in Bernanke, Ben S.; Rogoff, Kenneth, eds. *NBER macroeconomics annual*, 2001, Volume 15, Cambridge and London. MIT Press, pp. 339-90.
- OECD**. "Policies and International integration: influences on trade and foreign direct investment. Annex 2: Foreign Direct Investments and other miscellaneous data", OECD, Paris.
- Portes, Richard and Hélène Rey**, 2005, "The Determinants of Cross Border Equity Flows", *Journal of International Economics*, 65(2): 269-296.
- Rauch, James**, 1999, "Networks versus markets in international trade", *Journal of International Economics*, 41: 7-35.
- Rauch, James and Vitor Trindade**, 2002, "Ethnic Chinese Networks in International Trade", *Review of Economics and Statistics*, 84: 116-130.

- Reynolds, John, B.S. Weir, and C. Clark Cockerham**, 1983, "Estimation of the Coancestry Coefficient: Basis for a short term genetic distance", *Genetics*, 105: 767-779.
- Sapienza, Paola, Anna Toldra, and Luigi Zingales**, 2007, "Understanding Trust", Working paper.
- Spolaore, Enrico and Romain Wacziarg**, 2006, "The Diffusion of Development," *CEPR Discussion Papers* 5630.
- Stock, James H. and Motohiro Yogo**, 2002, "Testing for Weak Instruments in Linear IV Regression", *NBER Technical Working Paper* No. 284.
- Tabellini Guido**, 2005, "Culture and institutions: economic development in the regions of Europe," working paper.
- Vlachs, Jonas**, 2004, "Does Regulatory Harmonization Increase Bilateral Asset Holdings?" Stockholm University, working paper.
- Williamson, Oliver**, 1985, *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*, New York: The Free Press.

Data Appendix

A.1. - The Eurobarometer surveys

The Eurobarometer surveys are the products of a unique program of cross national and cross temporal social science research. The effort began in early 1970, when the Commission of the European Community sponsored simultaneous surveys of the publics of the European Community. These surveys were designed to measure public awareness of, and attitudes toward, the Common Market and other European Community institutions. After 1973, the survey took on a somewhat broader scope in content as well as in geographical coverage, with measures of subjective satisfaction and the perceived quality of life becoming standard features. In 1974, the Commission of the European Community launched the Eurobarometer series, designed to provide a regular monitoring of the social and political attitudes of the publics of the nine member-nations: France, Germany, Great Britain, Italy, the Netherlands, Belgium, Denmark, Ireland, Luxembourg. These Eurobarometer surveys are carried out in the spring and fall of each year. In addition to obtaining regular readings of support for European integration and the perceived quality of life, each survey has explored a variety of special topics. Also, attitudes toward the organization and role of the European Parliament have been explored in each Eurobarometer survey beginning with Barometer 7 in the spring of 1977. The Eurobarometer surveys have included Greece since fall 1980, Portugal and Spain since Autumn 1985, the former German Democratic Republic (East Germany) since 1990, Norway (irregularly) since the fall of 1990, Finland since the spring of 1993, and Sweden and Austria since the fall of 1994. Of these Eurobarometer surveys, we select a sub-sample of those in which the following question was asked to the respondents: "I would like to ask you a question about how much trust you have in people from various countries. For each, please tell me whether you have a lot of trust, some trust, not very much trust or no trust at all." Table A1 shows the number of observations from each country in our dataset, the number of years the country was sampled and the years in which it was sampled.

Code	Country sampled	Number of observations	N. of years present in survey	Years present
1	France	11,464	8	1970, 1976, 1980, 1986, 1990, 1993, 1994, 1995
2	Belgium	9,693	8	1970, 1976, 1980, 1986, 1990, 1993, 1994, 1995
3	The Netherlands	10,123	8	1970, 1976, 1980, 1986, 1990, 1993, 1994, 1995
4	Germany	11,332	8	1970, 1976, 1980, 1986, 1990, 1993, 1994, 1995
5	Italy	11,016	8	1970, 1976, 1980, 1986, 1990, 1993, 1994, 1995
6	Luxembourg	3,173	7	1976, 1980, 1986, 1990, 1993, 1994, 1995
7	Denmark	7,020	7	1976, 1980, 1986, 1990, 1993, 1994, 1995
8	Ireland	7,014	7	1976, 1980, 1986, 1990, 1993, 1994, 1995
9	Great Britain	7,498	7	1976, 1980, 1986, 1990, 1993, 1994, 1995
10	Northern Ireland	2,158	7	1976, 1980, 1986, 1990, 1993, 1994, 1995
11	Greece	6,014	6	1980, 1986, 1990, 1993, 1994, 1995
12	Spain	5,031	5	1986, 1990, 1993, 1994, 1995
13	Portugal	4,995	5	1986, 1990, 1993, 1994, 1995
14	East Germany	3,210	3	1993, 1994, 1995
15	Norway	994	1	1993
16	Finland	2,065	2	1993, 1995
17	Sweden	1,010	1	1995
18	Austria	1,995	1	1995

A.2. - Genetic distance

Measures of genetic distance between two populations, p_1 and p_2 , are based on the difference between the frequencies of alleles in the two populations. We use a measure of genetic distance, called F_{st} , (Reynolds et al., 1983) that is also called coancestry coefficient. The latter is not an accurate term, because it seems to indicate a measure of similarity, while it is really a measure of distance.

Consider m loci, i alleles and define p_{1mi} the frequency of the i th allele at the m th locus in population 1 and p_{2mi} the frequency of the i th allele at the m th locus in population 2.

F_{st} for 2 populations is

$$(2) \quad F_{st} = \frac{\sum_m \sum_i [p_{1mi} - p_{2mi}]^2}{2 \sum_m [1 - \sum_i p_{1mi} p_{2mi}]}$$

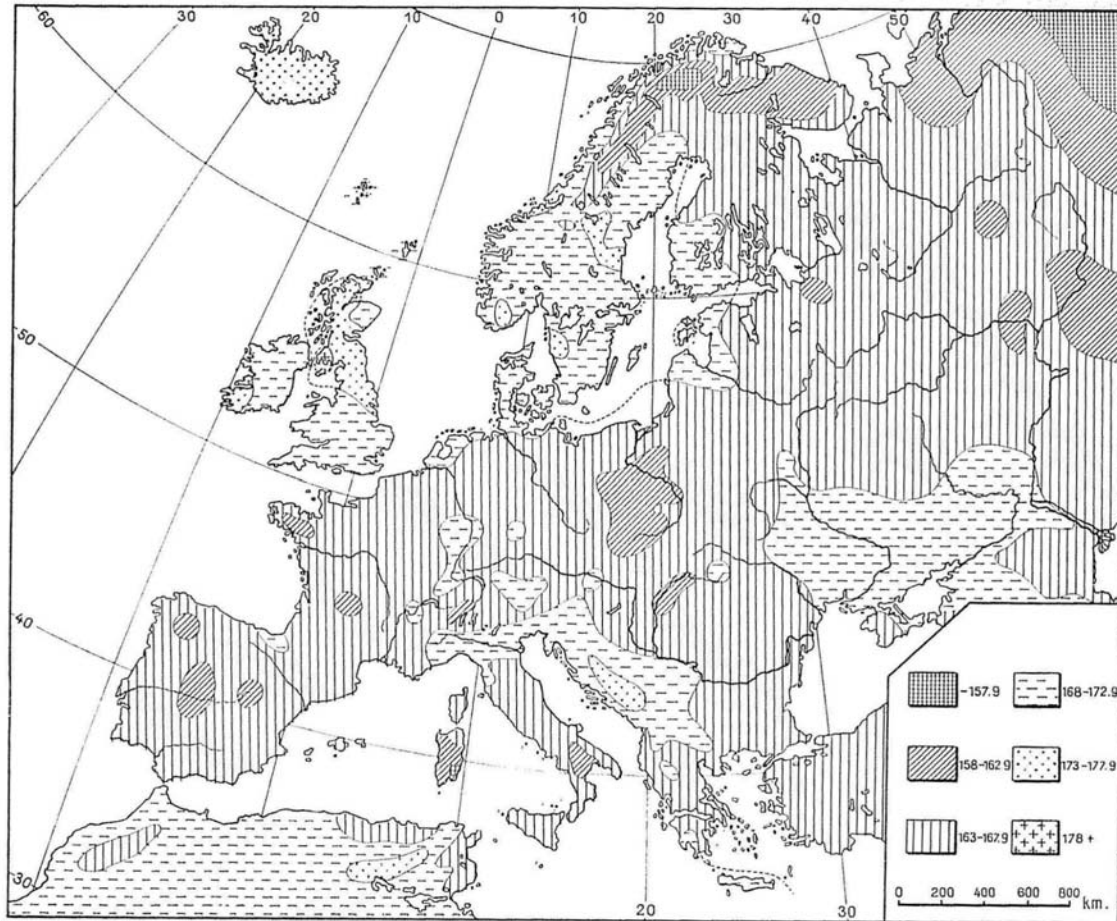
where m is measured over loci, and i over alleles at the m th locus. We use the above formula that has been calculated for 28 population with an average number of 88 genes.

The calculation of the genetic distance between two populations gives a relative estimate of the time that has passed since the populations have existed as single cohesive units, under some assumptions of evolution. When two populations are genetically isolated, the two processes of mutation and genetic drift lead to differentiation in the allele frequencies at selective neutral loci. As the amount of time that two populations are separated increases, the difference in allele frequencies should also increase until each population is completely fixed for separate alleles. The F_{st} measure assumes that there is no mutation, and that all gene frequency changes are driven by genetic drift alone. However, it does not assume that population sizes have remained constant and equal in all populations.

A.3. - Somatic distances

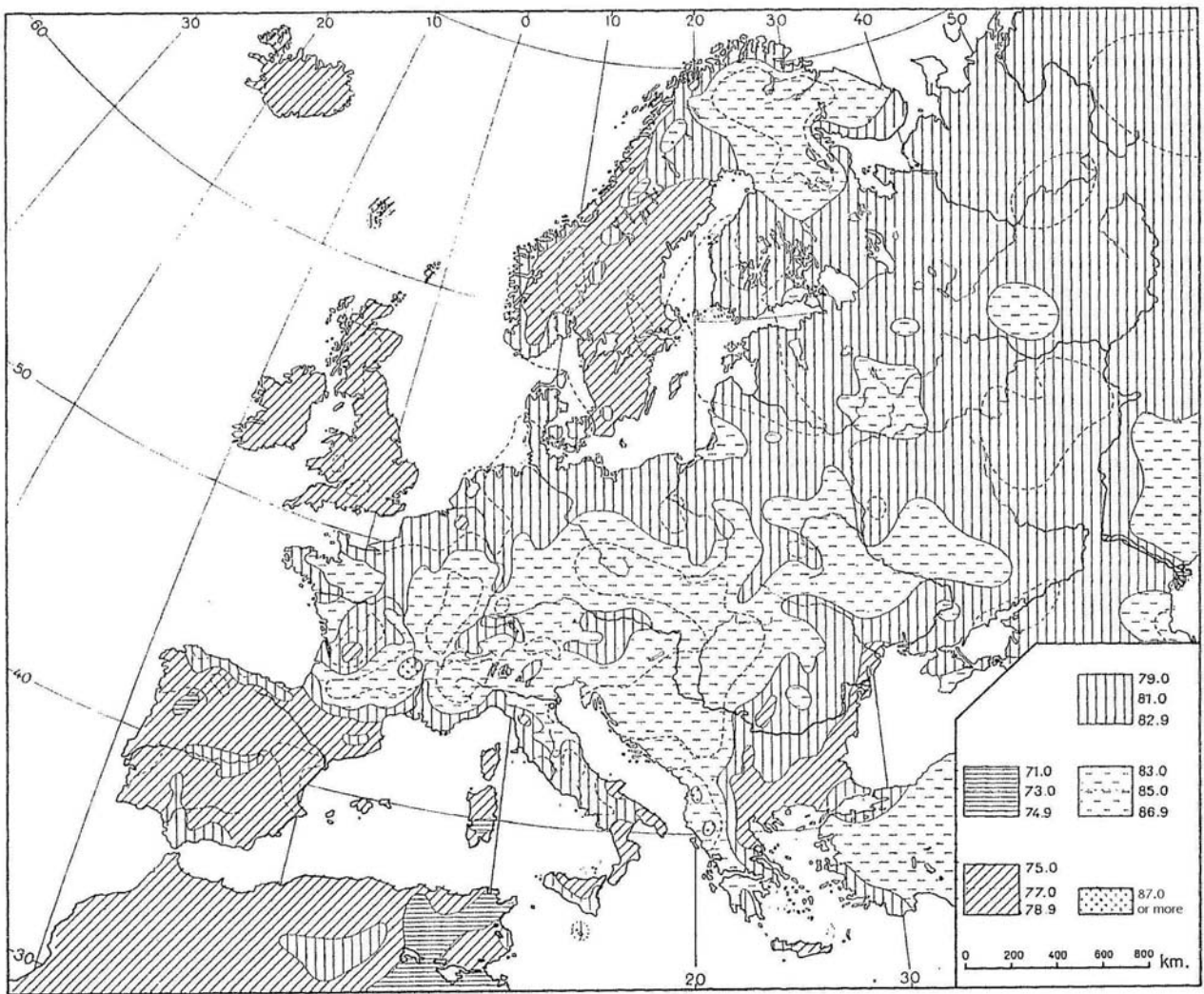
Measures of somatic distance between two populations are based on the distance between anthropometric measures in the two populations. We use anthropometric measures from Biasutti (1954) on three dimensions: heights, cephalic index, and hair color (pigmentation). The data are only available for the European countries in our sample. For heights, cephalic index (the ratio of the length and width of the skull), and hair color (pigmentation), we report the original maps of the prevailing traits in each country in Europe (reported in Figures I, II, and III). In each trait, European countries fall into three different categories, for example for hair color we have “Blond prevails”, “Mix of blond and dark”, and “Dark prevails” (The figure shows five categories, but only three are found in European countries). We arbitrarily assign the score of 1 to the first, 2 to the second and 3 to the third. We then compute the somatic distance between two countries as the sum of the absolute value of the difference in each of these traits. The data are available at <http://www.kellogg.northwestern.edu/faculty/sapienza/htm/somaticdistance.zip>

Figure I: Average Heights in Europe



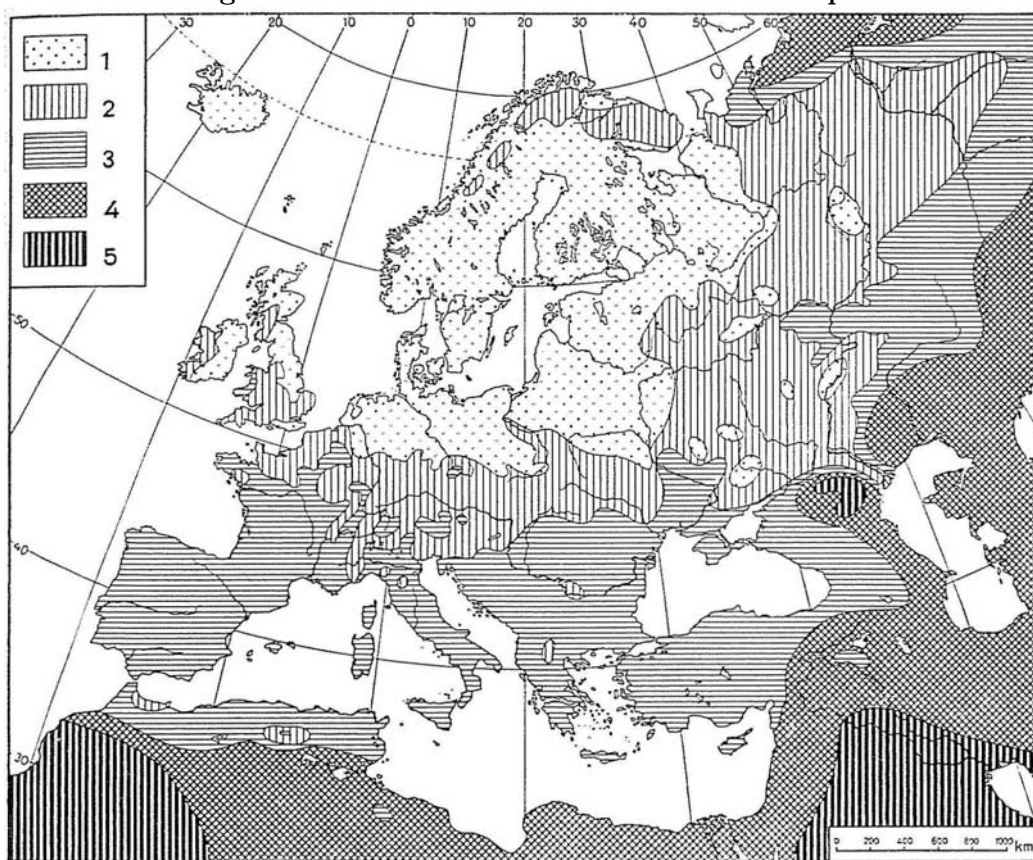
Distribution of average heights in Europe. Source Biasutti (1954).

Figure II: Average cephalic index in Europe



Average cephalic index in Europe. Source Biasutti (1954).

Figure III: Distribution of hair color in Europe



Distribution of hair color in Europe: 1 = Blond prevails; 2= Mix of blond and dark; 3=Dark prevails; 4= Sporadic presence of blond; 5= Exclusively dark. Source Biasutti (1954).

A.4. - First stage regressions for GMM-IV models

Table 2.A presents the first stage regressions for the GMM-IV model in Tables 5, 6, and 7. Panel A has the first stage regressions corresponding to the GMM-IV estimates in Table 5, Panel B has the first stage regressions corresponding to the GMM-IV estimates in Table 6, and Panel C contains the first stage regressions corresponding to the GMM-IV estimates in Table 7.

Panel A: First stage regressions for Table 5A					
	(1)	(2)	(3)	(4)	(5)
Somatic distance	-0.0604*** (0.0113)	-0.0604*** (0.0113)	-0.0643*** (0.0125)	-0.0660*** (0.0110)	-0.0742*** (0.0116)
Religious similarity	0.1570** (0.0717)	0.1570** (0.0717)		0.1714** (0.0714)	0.1393* (0.0725)
Number of years at war	-0.0012*** (0.0003)	-0.0012*** (0.0003)	-0.0012*** (0.0004)	-0.0012*** (0.0003)	-0.0012*** (0.0003)
Press coverage	-0.2362 (0.3594)	-0.2362 (0.3594)	-0.3259 (0.3689)	-0.1783 (0.3393)	-0.0349 (0.3776)
Transportation costs	-0.3833 (0.3392)	-0.3833 (0.3392)	-0.7018* (0.3688)	-0.4972 (0.0129)	-0.3383 (0.0080)
Log (distance)	-0.0072 (0.0392)	-0.0072 (0.0392)	0.0129 (0.0407)	0.0080 (0.0389)	0.0414 (0.0441)
Common border	-0.0459 (0.0430)	-0.0459 (0.0430)	-0.0344 (0.0439)	-0.0446 (0.0415)	-0.0276 (0.0429)
Common language	0.1178** (0.0559)	0.1178** (0.0559)	0.0887 (0.0730)	0.1542*** (0.0574)	-0.1125 (0.1040)
Output exporter	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)
Output importer	0.0000** (0.0000)	0.0000** (0.0000)	0.0000** (0.0000)	0.0000** (0.0000)	0.0000** (0.0000)
Same legal origin				-0.0542 (0.0469)	0.0373 (0.0494)
Correlation of consumption between the two countries					-0.0912 (0.2767)
Exporting country fixed effects	YES	YES	YES	YES	YES
Importing country fixed effects	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES
Std. err. clustered per pair of country	YES	YES	YES	YES	YES
Observations	584	584	584	584	464
R-squared	0.699	0.690	0.699	0.701	0.694
F-test of excluded instruments:	F(3, 88) =15.02	F(2, 88) =18.19	F(1, 88) =26.52	F(2, 88) =22.76	F(2, 75) =25.64
Instruments (first stage regression in appendix)	Somatic distance, religion similarity, wars	Somatic distance, religion similarity	Somatic distance,	Somatic distance, religion similarity	Somatic distance, religion similarity

Panel B: First stage regressions for Table 5B				
	(1)	(2)	(3)	(4)
Religious diversity	0.2066*** (0.0691)	0.2559*** (0.0595)	0.1796*** (0.0655)	0.2101*** (0.0618)
Somatic distance	-0.0543*** (0.0090)	-0.0658*** (0.0077)	-0.0576*** (0.0091)	-0.0669*** (0.0085)
Transportation costs	-0.3122 (0.3773)	-0.7393* (0.3824)	-0.3162 (0.3050)	-0.5374 (0.3275)
Number of years at war (1000-1815)	-0.0014*** (0.0003)	-0.0013*** (0.0003)	-0.0013*** (0.0003)	-0.0012*** (0.0003)
Press coverage	0.0019 (0.3228)	0.0945 (0.2907)	-0.1703 (0.3343)	-0.0775 (0.3067)
Log (distance)	0.0150 (0.0396)	0.0703* (0.0385)	0.0271 (0.0380)	0.0622* (0.0368)
Common border	-0.0577 (0.0367)	-0.0460 (0.0319)	-0.0379 (0.0364)	-0.0311 (0.0328)
Common language	0.1556*** (0.0398)	0.2414*** (0.0430)	0.1311*** (0.0483)	0.1971*** (0.0473)
Output exporter	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)
Output importer	0.0000 (0.0000)	0.0000 (0.0000)	0.0000* (0.0000)	0.0000** (0.0000)
Same legal origin		-0.1346*** (0.0450)		-0.0995** (0.0445)
Exporting country fixed effects	YES	YES	YES	YES
Importing country fixed effects	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES
Industry fixed effects	YES	YES	YES	YES
Std. err. clustered per pair of country	YES	YES	YES	YES
Observations	19721	19721	111425	111425
R-squared	0.733	0.743	0.718	0.723
F-test of excluded instruments (religion similarity and somatic distance):	F(2, 88) =22.86	F(2, 88) =48.94	F(2, 88) =27.31	F(2, 88) =40.90

Panel C: First stage regressions for Table 6

	(1)	(2)	(3)	(4)
Religious similarity	0.2081*** (0.0616)	0.2278*** (0.0636)	0.1557** (0.0631)	0.1477** (0.0647)
Somatic distance	-0.0384*** (0.0110)	-0.0324** (0.0135)	-0.0290** (0.0125)	-0.0286** (0.0126)
Number of years at war	-0.0007 (0.0005)	-0.0005 (0.0005)	-0.0007 (0.0005)	-0.0009* (0.0005)
Common border	-0.0453 (0.0437)	-0.0313 (0.0533)	-0.0379 (0.0508)	-0.0432 (0.0514)
Common language	0.1413*** (0.0421)	0.1522*** (0.0471)	0.0891* (0.0513)	0.0813 (0.0553)
Log (distance)	-0.0206 (0.0442)	-0.0223 (0.0459)	-0.0336 (0.0455)	-0.0398 (0.0486)
Inverse Cov. of stock market returns of country of origin and destination	-0.1886** (0.0804)	-0.2056** (0.0950)	-0.2099** (0.0927)	-0.2009** (0.0855)
Press coverage		-0.4642 (0.5745)	-0.7669 (0.5714)	-0.7120 (0.5800)
Same legal origin			0.1012** (0.0423)	0.1079** (0.0409)
Distance in security law regulation				-0.0073 (0.0077)
Investing country fixed effects	YES	YES	YES	YES
Destination country fixed effects	YES	YES	YES	YES
Std .err. clustered per pair of country	YES	YES	YES	YES
Observations	118	107	107	107
R-squared	0.909	0.910	0.916	0.917
F-test of excluded instruments (religion similarity and somatic distance):	F(2,64) =13.53	F(2,63) =10.52	F(2,63) =6.19	F(2,63) =5.67

Panel D: First stage regressions for Table 7

	(1)	(2)	(3)
Religious diversity	0.1937* (0.1019)	0.2602*** (0.0918)	0.2361** (0.0964)
Somatic distance	-0.0463*** (0.0140)	-0.0557*** (0.0156)	-0.0494*** (0.0143)
Number of years at war	-0.0013*** (0.0003)	-0.0013*** (0.0004)	-0.0015*** (0.0003)
Press coverage	-0.8071* (0.4285)	-0.6598 (0.4235)	-0.6741* (0.3857)
Log (distance)	-0.0044 (0.0475)	0.0092 (0.0465)	0.0426 (0.0450)
Common border	0.0211 (0.0509)	0.0192 (0.0472)	0.0159 (0.0438)
Common language	0.1743** (0.0744)	0.2419*** (0.0711)	0.2592*** (0.0670)
Same legal origin		-0.0943* (0.0555)	-0.1228** (0.0569)
Transportation costs			-0.8005*** (0.2941)
Investing country fixed effects	YES	YES	YES
Destination country fixed effects	YES	YES	YES
Year fixed effects	YES	YES	YES
Std. err. clustered per pair of country	YES	YES	YES
Observations	428	428	428
R-squared	0.737	0.744	0.754
F-test of excluded instruments (religion similarity and somatic distance):	F(2,73)= 9.19	F(2, 73)= 13.16	F(2, 73)= 10.57

Figure 1
Fixed effects of country of origin relative to Ireland

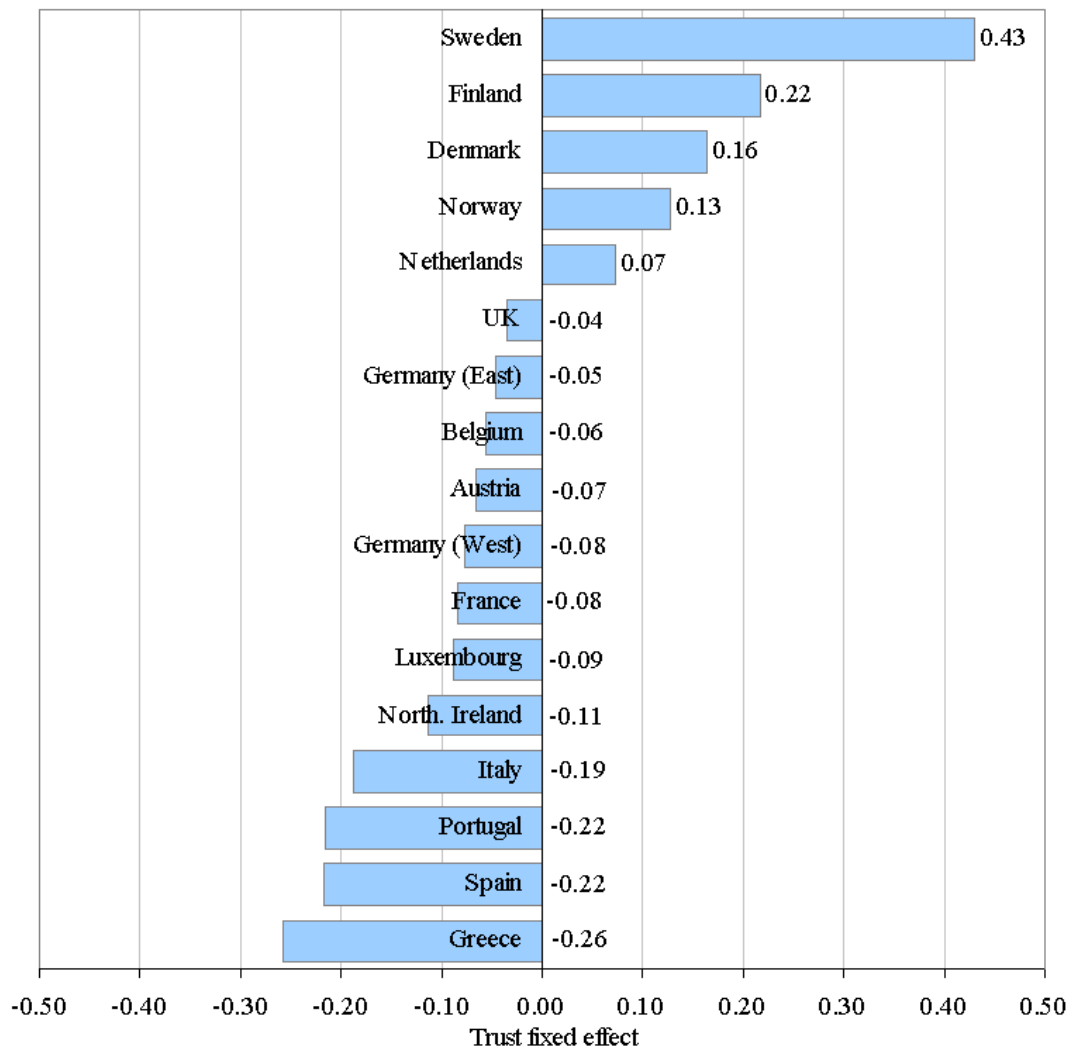


Figure 2
Fixed effects of country of destination relative to Ireland

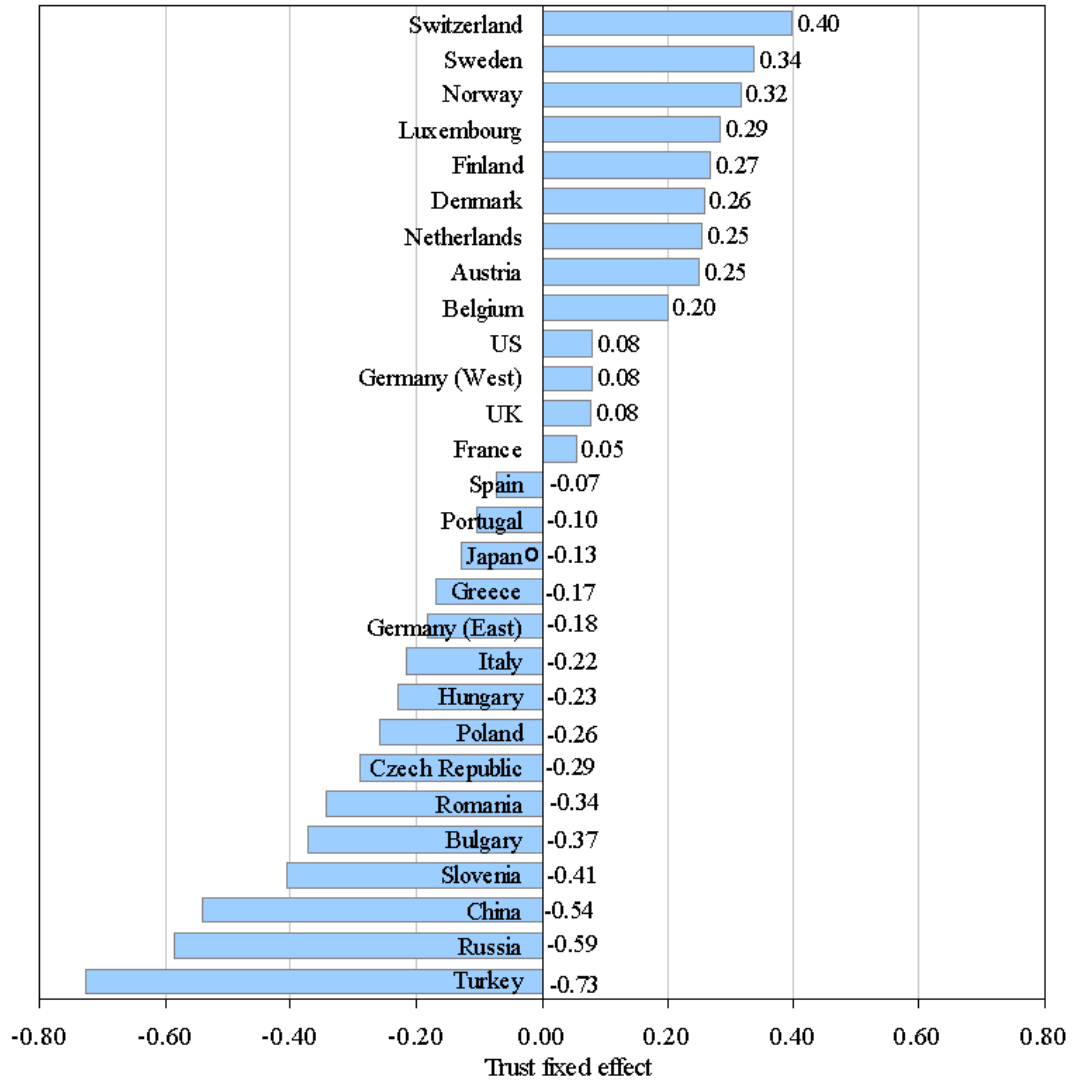


Table 1:

The trust matrix

The matrix in panel A shows the average trust from citizens of a given country to citizens of other countries. Trust is calculated by taking the average response to the following question: “I would like to ask you a question about how much trust you have in people from various countries. For each, please tell me whether you have a lot of trust, some trust, not very much trust or no trust at all”. The answers are coded in the following way: =1 (no trust at all), = 2 (not very much trust), =3 (some trust), =4 (a lot of trust). The last row is the average trust that citizens of a given country exhibit toward all the other countries; the last column shows the average trust that citizens of a given country receive from all the other countries. It gives a summary measure of how trustworthy are the citizens of the country in each row. The matrix in panel B shows the percentage share of citizens of a given European country who report they trust a lot their fellow citizens and citizens of the other European countries. The last row is the average percentage share of those that in a given country report they trust a lot, and gives a summary measure of how much citizens of a given country trust citizens of their own or other countries. The last column shows the average share of the citizens of different countries that trust a lot citizens of the country in each given row; it gives a summary measure of how trustworthy are the citizens of the country in each row.

Panel A:

	Trust from:															Average		
	Aus	Bel	UK	Den	NL	E Ger	Fin	Fra	W Ger	Gre	Ire	Ita	Lux	Nor	Por		Spa	Swe
Aus	3.56	2.83	2.89	3.22	2.90	3.26	3.29	2.70	2.98	2.32	2.93	2.66	2.95	.	2.13	2.65	3.53	2.93
Bel	2.95	3.28	2.91	3.18	3.18	2.93	3.07	3.07	2.84	2.60	2.93	2.64	2.82	3.18	2.66	2.73	3.23	2.95
UK	2.61	2.84	3.29	3.22	3.00	2.89	3.18	2.55	2.69	2.34	2.81	2.51	2.58	3.27	2.66	2.31	3.43	2.83
Den	2.95	3.01	3.13	3.39	3.29	3.10	3.30	2.96	2.97	2.56	2.99	2.70	2.86	3.53	2.66	2.73	3.57	3.04
NL	2.95	2.90	3.16	3.33	3.28	3.07	3.14	2.94	2.90	2.55	3.00	2.77	2.97	3.26	2.70	2.85	3.33	3.01
E Ger	.	2.59	2.57	2.86	2.75	.	.	2.56	2.99	2.57	2.69	2.56	2.42	.	2.57	2.36	.	2.62
Fin	2.94	2.92	2.98	3.20	3.25	2.97	3.69	2.91	2.85	2.42	2.92	2.78	2.94	.	2.18	2.71	3.49	2.95
Fra	2.62	2.92	2.32	2.86	2.72	3.00	2.92	3.18	2.85	2.78	2.81	2.66	2.83	2.93	2.91	2.37	3.04	2.81
W Ger	3.09	2.75	2.62	3.12	2.84	3.39	2.89	2.74	3.50	2.31	2.78	2.63	2.76	2.99	2.54	2.66	3.13	2.87
Gre	2.52	2.45	2.54	2.61	2.59	2.53	2.68	2.53	2.51	3.21	2.50	2.40	2.53	2.52	2.41	2.47	2.88	2.58
Ire	2.55	2.75	2.61	3.02	2.80	2.45	2.92	2.72	2.59	2.55	3.33	2.37	2.55	3.01	2.51	2.57	3.26	2.74
Ita	2.43	2.40	2.51	2.53	2.35	2.42	2.51	2.43	2.36	2.33	2.65	2.80	2.54	2.65	2.55	2.61	2.81	2.52
Lux	3.07	3.30	2.96	3.23	3.29	3.04	3.06	3.09	2.99	2.56	2.96	2.62	3.46	3.20	2.71	2.71	3.31	3.03
Nor	3.00	2.91	3.06	3.50	3.30	3.06	3.48	2.97	2.92	2.40	2.93	2.78	2.91	.	2.22	2.79	3.65	2.99
Por	2.50	2.53	2.74	2.67	2.74	2.40	2.67	2.59	2.48	2.60	2.65	2.32	2.56	2.60	3.29	2.51	2.97	2.64
Spa	2.58	2.59	2.47	2.66	2.64	2.55	2.61	2.68	2.66	2.71	2.64	2.64	2.65	2.56	2.59	3.32	2.86	2.67
Swe	3.05	2.99	3.03	3.41	3.34	3.14	3.35	2.99	2.99	2.51	2.92	2.89	2.98	.	2.24	2.84	3.59	3.02
Rus	1.76	2.01	2.17	2.32	2.20	2.03	1.90	2.03	1.93	2.38	2.10	2.16	2.00	2.52	2.13	2.29	2.45	2.14
Slo	1.98	2.17	2.49	2.51	2.43	2.18	2.53	2.22	1.80	2.27	2.52	2.10	2.06	.	1.79	2.27	2.79	2.26
CH	3.24	3.16	3.18	3.28	3.26	3.24	3.37	3.03	3.25	2.89	3.05	2.85	3.09	.	2.79	2.79	3.50	3.12
Tur	1.78	1.90	2.17	2.27	2.31	1.66	2.13	1.95	2.05	1.33	2.16	1.74	1.98	.	2.05	1.96	2.39	1.99
US	2.57	2.80	2.87	2.93	2.96	2.64	2.86	2.63	2.95	2.18	2.94	2.87	2.99	3.14	2.70	2.28	3.20	2.79
Bul	.	2.46	2.56	2.70	2.70	.	.	2.49	2.16	2.05	2.60	2.32	2.39	.	2.47	2.15	.	2.42
Chi	.	1.88	2.34	2.60	2.03	.	.	2.05	1.94	2.45	2.20	2.14	2.07	.	2.34	2.42	.	2.21
Cec	2.05	2.40	2.66	2.71	2.73	2.33	2.64	2.44	2.10	2.39	2.59	2.34	2.36	.	2.17	2.27	2.88	2.44
Hun	2.31	2.47	2.68	2.75	2.74	2.34	2.87	2.53	2.33	2.37	2.67	2.38	2.38	.	2.18	2.22	2.87	2.51
Jap	2.49	2.44	2.48	2.92	2.72	2.69	3.05	2.28	2.69	2.60	2.61	2.86	2.54	3.09	2.42	2.55	3.19	2.68
Pol	2.07	2.50	2.83	2.76	2.77	1.92	2.59	2.56	1.94	2.35	2.74	2.43	2.38	.	2.21	2.32	2.69	2.44
Rom	.	2.52	2.59	2.65	2.70	.	.	2.49	2.07	2.38	2.56	2.44	2.37	.	2.46	2.23	.	2.45
Average	2.62	2.64	2.72	2.91	2.82	2.69	2.91	2.63	2.60	2.45	2.73	2.53	2.62	2.96	2.46	2.52	3.12	2.62

Panel B:

	Trust from:														Average		
	Fra	Bel	NL	W Ger	Ita	Lux	Den	Ire	UK	Gre	Spa	Por	Nor	Fin	Swe	Aus	Average
Fra	33	23	12	21	12	21	18	15	8	26	14	21	21	23	34	17	20
Bel	23	40	29	17	9	16	30	15	17	19	17	10	31	29	42	25	23
NL	18	24	37	22	14	22	40	20	29	21	20	11	37	33	48	23	26
Ger	16	19	15	57	19	18	30	18	15	18	20	11	27	27	41	36	24
Ita	7	8	4	8	19	11	11	10	8	12	15	7	12	10	24	12	11
Lux	23	39	34	24	10	53	32	15	17	18	17	11	32	27	45	30	27
Den	23	23	35	23	13	17	46	18	27	21	17	10	57	42	63	21	29
Ire	18	15	15	13	8	11	26	43	15	17	14	7	27	25	45	15	20
UK	10	18	21	15	11	12	35	18	39	16	10	12	38	34	53	15	22
Gre	9	9	8	11	7	9	14	9	11	51	13	6	14	15	31	15	15
Spa	12	11	8	14	11	12	13	10	8	21	49	13	13	12	29	14	16
Por	11	10	9	11	5	12	13	10	12	17	14	44	13	13	33	14	15
Nor	19	19	34	24	15	19	54	14	22	9	19	6	61	55	69	27	29
Fin	16	18	30	20	16	19	34	13	18	10	14	6	.	72	59	24	25
Swe	20	20	36	26	18	19	47	13	20	13	20	6	.	47	64	29	27
Aus	11	18	14	26	11	22	34	14	15	8	13	5	2	41	58	65	24
US	12	10	4	7	9	6	6	7	8	38	28	13	2	5	3	15	11
Bul	9	11	6	4	5	8	10	9	7	8	2	7	.	.	.	.	7
Chi	5	5	4	5	10	7	16	8	9	22	15	7	.	.	.	.	9
Cze	9	11	8	6	5	8	14	9	9	10	4	4	.	14	31	6	10
E Ger	12	15	8	28	9	6	14	11	7	15	4	7	.	.	.	.	11
Hun	10	12	9	10	6	8	14	9	9	9	4	5	.	21	31	10	11
Jap	10	13	14	17	26	12	23	15	12	23	16	9	34	29	42	14	19
Pol	12	14	12	4	8	9	16	12	15	10	5	6	.	12	26	6	11
Rom	10	12	8	4	8	8	10	9	7	12	3	7	.	.	.	.	8
Rus	5	5	5	5	8	5	9	7	6	18	11	5	12	5	21	6	8
Slo	7	7	4	3	2	6	12	7	8	7	6	3	.	11	29	6	8
Swi	25	34	35	40	26	32	38	22	31	34	22	19	.	49	56	43	34
Tur	5	5	5	6	2	7	10	6	5	3	8	4	.	8	22	4	6
Average	14	16	16	16	11	14	23	13	14	17	14	10	27	26	40	20	20

Table 2:

Bilateral trust and country-of-origin and country-of-destination characteristics

Panel A shows how much of the trust of the average trust of a country's citizens versus the other country's citizens is explained by observed and unobserved characteristics of the country receiving and giving trust. "Mean trust" is the average trust across individuals of a given country; "median trust" uses the median to aggregate across individuals; "share of individuals trusting a lot" is the fraction of interviewed individuals in a given country that report they trust a lot the citizens of another country. Besides country-of-origin and country-of-destination fixed effects, the regression includes a year fixed effect. The omitted country is Ireland. The standard errors reported in parentheses are corrected for the potential clustering at the country of destination level. Panel B is the matrix of the residuals in the regression of the first column of Panel A.

The symbols ***, **, and * mean that the coefficient is statistically different from zero respectively at the 1%, 5%, and 10% level.

Panel A:

	Mean trust	Median trust	Fraction of individuals trusting a lot
Origin country (base=Ireland)			
Fra	-0.0847* (0.0496)	-0.1211** (0.0438)	-0.0041 (0.0225)
Bel	-0.0555 (0.0488)	-0.1262*** (0.0449)	0.0274 (0.0259)
NL	0.0729 (0.0494)	-0.0814 (0.0512)	0.0173 (0.0254)
Ger(west)	-0.0756 (0.0649)	-0.1504* (0.0780)	0.0272 (0.0295)
Ita	-0.1872*** (0.0582)	-0.2392*** (0.0749)	-0.0281 (0.0220)
Lux	-0.0873 (0.0553)	-0.1627** (0.0717)	0.0071 (0.0297)
Den	0.1647*** (0.0452)	0.0119 (0.0534)	0.0827*** (0.0238)
UK	-0.0353 (0.0603)	-0.0873 (0.0525)	0.0059 (0.0226)
NorthIre	-0.1134*** (0.0352)	-0.1071** (0.0398)	-0.0331** (0.0129)
Greece	-0.2586*** (0.0844)	-0.2878*** (0.0918)	0.0568* (0.0326)
Spain	-0.2169*** (0.0702)	-0.2843*** (0.0744)	0.0175 (0.0300)
Portugal	-0.2150*** (0.0644)	-0.2426*** (0.0577)	-0.0329 (0.0297)
Ger(East)	-0.0460 (0.0767)	-0.2109** (0.0950)	0.0491 (0.0297)
Norway	0.1272** (0.0612)	0.0317 (0.0982)	0.0884*** (0.0306)
Finland	0.2170*** (0.0562)	0.1393** (0.0668)	0.1320*** (0.0331)
Sweden	0.4301*** (0.0439)	0.3393*** (0.0981)	0.2678*** (0.0293)
Austria	-0.0668 (0.0654)	-0.2207** (0.1050)	0.0651** (0.0301)
Destination country (base=Ireland)			
Fra	0.0540*** (0.0046)	-0.0442*** (0.0072)	0.0095*** (0.0009)
Bel	0.2009*** (0.0000)	0.0591*** (0.0000)	0.0292*** (0.0000)
NL	0.2543*** (0.0000)	0.0161*** (0.0000)	0.0630*** (0.0000)
Ger(west)	0.0802*** (0.0045)	0.0534*** (0.0071)	0.0486*** (0.0009)
Ita	-0.2168*** (0.0047)	-0.2619*** (0.0073)	-0.0752*** (0.0009)
Lux	0.2855*** (0.0000)	0.1022*** (0.0000)	0.0703*** (0.0000)
Den	0.2574*** (0.0000)	0.0806*** (0.0000)	0.0612*** (0.0000)
UK	0.0790*** (0.0056)	-0.0665*** (0.0089)	0.0240*** (0.0011)
Greece	-0.1667*** (0.0042)	-0.0995*** (0.0080)	-0.0492*** (0.0006)
Spain	-0.0731*** (0.0042)	-0.0513*** (0.0080)	-0.0363*** (0.0006)
Portugal	-0.1033*** (0.0042)	-0.1236*** (0.0080)	-0.0476*** (0.0006)
Ger (East)	-0.1813*** (0.0180)	-0.2408*** (0.0336)	-0.0776*** (0.0042)
Norway	0.3171*** (0.0125)	0.2436*** (0.0183)	0.0901*** (0.0029)
Finland	0.2676*** (0.0125)	0.1848*** (0.0183)	0.0627*** (0.0029)
Sweden	0.3359*** (0.0125)	0.1259*** (0.0183)	0.0858*** (0.0029)
Austria	0.2500*** (0.0125)	0.1259*** (0.0183)	0.0631*** (0.0029)

(continues)

Panel A: (continues)

Destination country (base=Ireland)			
US	0.0803*** (0.0056)	-0.0410*** (0.0089)	-0.0617*** (0.0011)
Bulgaria	-0.3725*** (0.0180)	-0.4716*** (0.0336)	-0.1169*** (0.0042)
China	-0.5415*** (0.0131)	-0.7934*** (0.0220)	-0.0865*** (0.0025)
Czech Republic	-0.2887*** (0.0100)	-0.3663*** (0.0163)	-0.0911*** (0.0025)
Hungary	-0.2284*** (0.0100)	-0.2997*** (0.0163)	-0.0802*** (0.0025)
Japan	-0.1271*** (0.0040)	-0.0787*** (0.0079)	-0.0141*** (0.0011)
Poland	-0.2569*** (0.0100)	-0.3330*** (0.0163)	-0.0770*** (0.0025)
Romania	-0.3423*** (0.0180)	-0.3947*** (0.0336)	-0.1071*** (0.0042)
Russia	-0.5854*** (0.0056)	-0.8369*** (0.0089)	-0.1016*** (0.0011)
Slovenia	-0.4064*** (0.0125)	-0.5211*** (0.0183)	-0.0984*** (0.0029)
Switzerland	0.3979*** (0.0090)	0.1215*** (0.0150)	0.1371*** (0.0015)
Turkey	-0.7266*** (0.0087)	-1.0172*** (0.0146)	-0.1241*** (0.0017)
Constant	2.6779*** (0.0353)	2.9303*** (0.0476)	0.1313*** (0.0153)
Year fixed effect	YES	YES	YES
Dummies for country of origin: F-test	F(17, 1964) = 31.84 p-value=0.000	F(17, 1964) = 9.49 p-value=0.000	F(17, 2764) = 25.98 p-value=0.000
Dummies for country of destination: F-test	F(28, 1964) =88.41 p-value=0.000	F(8,1964) =39.51 p-value=0.000	F(28, 1964) = 33.67 p-value=0.000
Observations	1747	1747	1747
R-squared	0.647	0.447	0.454

Panel B: Matrix of residuals

	Fra	Bel	NL	W Ger	Ita	Lux	Den	Ire	UK	N Ire	Gre	Spa	Por	E Ger	Nor	Fin	Swe	Aus
Fra	0.43	0.16	-0.16	0.11	0.04	0.09	-0.14	-0.03	-0.48	-0.22	0.18	-0.27	0.26	0.21	-0.08	-0.06	-0.15	-0.07
Bel	0.17	0.35	0.13	-0.07	-0.16	-0.08	0.04	-0.05	-0.04	-0.03	-0.14	-0.06	-0.13	-0.01	0.01	-0.05	-0.10	0.11
NL	-0.01	-0.08	0.18	-0.06	-0.08	0.02	0.13	-0.03	0.16	0.06	-0.24	0.00	-0.15	0.08	0.05	-0.03	-0.05	0.06
W Ger	-0.01	-0.03	-0.08	0.71	-0.02	-0.01	0.09	-0.08	-0.21	-0.22	-0.31	-0.01	-0.14	0.57	-0.05	-0.11	-0.08	0.37
Ita	-0.03	-0.08	-0.26	-0.10	0.42	0.06	-0.20	0.09	-0.02	-0.01	0.01	0.23	0.17	-0.10	-0.10	-0.20	-0.11	0.01
Lux	0.11	0.28	0.15	0.00	-0.26	0.48	0.00	-0.11	-0.07	-0.09	-0.26	-0.16	-0.17	0.02	-0.05	-0.15	-0.11	0.14
Den	0.01	0.02	0.18	0.01	-0.15	-0.09	0.18	-0.05	0.13	0.03	-0.23	-0.12	-0.19	0.11	0.31	0.12	0.18	0.05
Ire	0.02	0.02	-0.06	-0.11	-0.22	-0.14	0.07	0.55	-0.14	0.19	0.01	-0.02	-0.08	-0.29	0.04	0.00	0.13	-0.09
UK	-0.21	0.06	0.09	-0.07	-0.14	-0.20	0.20	-0.05	0.46	0.29	-0.28	-0.37	-0.01	0.07	0.23	0.18	0.22	-0.11
N Ire	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Gre	-0.02	-0.13	-0.12	-0.04	-0.04	-0.02	-0.19	-0.13	-0.06	-0.17	0.84	0.04	-0.02	-0.04	-0.27	-0.08	-0.09	0.05
Spa	0.04	-0.08	-0.16	0.01	0.10	0.01	-0.23	-0.08	-0.22	0.04	0.25	0.80	0.07	-0.12	-0.33	-0.24	-0.20	0.02
Por	-0.02	-0.11	-0.03	-0.14	-0.18	-0.05	-0.19	-0.04	0.08	-0.01	0.16	0.02	0.79	-0.23	-0.26	-0.14	-0.06	-0.04
E Ger	-0.06	-0.05	-0.03	0.36	0.04	-0.20	-0.01	-0.02	-0.10	0.01	0.12	-0.12	0.08	.	.	.	.	.
Nor	0.04	-0.05	0.21	-0.02	-0.05	-0.03	0.32	-0.09	0.07	-0.04	-0.36	-0.01	-0.59	0.08	.	0.24	0.20	0.05
Fin	0.02	0.00	0.21	-0.05	0.00	0.06	0.06	-0.06	0.04	-0.06	-0.29	-0.05	-0.58	0.04	.	0.50	0.09	0.03
Swe	0.04	0.01	0.23	0.03	0.03	0.03	0.20	-0.12	0.03	0.01	-0.27	0.01	-0.58	0.14	.	0.09	0.12	0.08
Aus	-0.17	-0.07	-0.13	0.11	-0.10	0.08	0.10	-0.03	-0.03	0.10	-0.37	-0.09	-0.61	0.35	.	0.12	0.14	0.68
US	-0.13	0.02	0.05	0.19	0.22	0.22	-0.10	0.08	0.04	0.14	-0.44	-0.39	0.03	-0.18	0.09	-0.14	-0.01	-0.15
Bul	0.06	0.00	0.11	-0.28	-0.01	-0.03	0.02	0.08	0.08	-0.04	-0.20	-0.15	0.17	.	.	.	.	.
Chi	-0.07	-0.26	-0.24	-0.19	0.12	-0.08	0.20	-0.04	0.13	0.10	0.44	0.33	0.25	.	.	.	.	.
Cze	0.02	-0.05	0.15	-0.33	0.02	-0.06	0.04	0.09	0.19	0.14	0.14	-0.02	-0.12	-0.04	.	0.01	0.03	-0.30
Hun	0.05	-0.04	0.10	-0.16	0.00	-0.10	0.02	0.10	0.15	-0.22	0.06	-0.13	-0.17	-0.09	.	0.18	-0.04	-0.09
Jap	-0.30	-0.18	-0.02	0.09	0.38	-0.04	0.09	-0.06	-0.15	0.20	0.19	0.09	-0.04	0.08	0.26	0.26	0.19	-0.02
Pol	0.11	0.02	0.16	-0.52	0.08	-0.07	0.06	0.20	0.33	0.09	0.07	0.00	-0.12	-0.48	.	-0.07	-0.19	-0.31
Rom	0.03	0.03	0.08	-0.40	0.09	-0.09	-0.06	0.01	0.09	-0.06	0.09	-0.10	0.13	.	.	.	.	.
Rus	-0.06	-0.11	-0.04	-0.17	0.18	-0.10	-0.04	-0.09	0.01	0.22	0.42	0.29	0.12	-0.12	0.14	-0.43	-0.10	-0.29
Slo	0.01	-0.08	0.06	-0.43	-0.01	-0.15	0.05	0.23	0.23	0.02	0.23	0.19	-0.29	-0.07	.	0.01	0.06	-0.25
Swi	-0.02	0.08	0.05	0.19	-0.10	0.01	-0.05	-0.12	0.05	0.22	-0.03	-0.19	-0.19	0.18	.	0.05	-0.03	0.20
Tur	-0.04	-0.12	0.16	0.05	-0.15	-0.01	0.03	0.08	0.13	0.08	-0.48	0.11	0.19	-0.27	.	-0.07	-0.02	-0.13

Table 3:

Summary Statistics

Panel A contains summary statistics for trust and for the bilateral controls. Trust is calculated by taking the average response to the following question: “I would like to ask you a question about how much trust you have in people from various countries. For each, please tell me whether you have a lot of trust, some trust, not very much trust or no trust at all”. The answers are coded in the following way: =1 (no trust at all), =2 (not very much trust), =3 (some trust), =4 (a lot of trust). The sample statistics presented here for trust are obtained after collapsing the data by taking time averages (after partialling out time effects). Distance is the log distance between the capital of two countries. Common border is a dummy variable equal to 1 if two countries share at least one border (it is coded 1, if countries are the same). Common language is an indicator variable equal to 1 if the two countries share the same official language. Same legal origin is a dummy variable that is equal to 1 if two countries share the same origin of law (i.e., English, French, German, or Scandinavian), following the La Porta et al. (1998) classification. Religious similarity measures the fraction of people with the same religious faith in the two countries. Genetic distance is the coancestry coefficient (Reynolds et al., 1983) calculated by Cavalli-Sforza et al. (1996). Somatic distance between two populations is based on the distance between three anthropometric measures: heights, hair colors (pigmentation), and cephalic index (Biasutti, 1954). Number of years at war have been calculated using the current nations’ borders as definition of the countries. Press coverage is the number of times a country name appears in the headlines of the major newspaper in each country over the total number of foreign news. The cross correlation matrix of the variables included in Panel A, obtained after controlling for country-of-origin and country-of-destination fixed effects, is shown in Panel B. Panel C shows summary statistics for the trade dataset. The data contains export volume for a panel of 18 European Countries in the period between 1970 and 1996 (Source: Statistics of Canada). Output importer and exporter are respectively the GDP of the importing and exporting country. Transportation costs between pair of countries are calculated following Giuliano, Spilimbergo, and Tonon (2006) as the shipping quotes in year 2006 collected by Import Export Wizard (IEW), a shipping company that calculates the surface freight estimates of transportation costs in U.S. dollars for a “1000 kg unspecified freight type load (including machinery, chemicals, etc.) with no special handling required, using the optimal combination of going through land and water to transport the goods.” The correlation of consumption between pairs of countries is obtained by correlating the level of consumption by ISIC codes between country i and country j for years 1989-94 (Source: Nicita and Olarreaga, 2006). Consumption in each ISIC code/country is defined as GDP plus imports, minus exports. Panel D shows summary statistics for the foreign direct investment data. Outward stock of FDI (log) is from the OECD data and includes a panel between 1970 and 1996 of 18 European countries. Panel E shows summary statistics for the portfolios datasets. The percentage invested in the partner country is the net portfolio investment of a given country into another country defined as the stock of cross-border holdings of equities and long- and short-term debt securities valued at market prices prevailing at the end of 2001 (from Morningstar data) divided by the sum of all foreign equity holdings plus market capitalization-foreign liabilities. The inverse of the covariance of stock market returns is calculated using monthly data for each country (DATASTREAM). Following Vlachos (2004), distance in security law regulation is the sum of the absolute difference between the score in 21 characteristics analyzed in La Porta et al. (2005).

Panel A: Trust and control variables

	Mean	Median	Std. Dev.	Min	Max	Obs.
Average trust	0.073	0.058	0.382	-1.348	1.033	319
Median trust	0.071	0.195	0.428	-1.813	1.247	319
Fraction of individuals trusting a lot	0.030	-0.016	0.136	-0.156	0.554	319
Distance	7.018	7.274	1.783	0.000	9.320	319
Common border	0.160	0.000	0.367	0.000	1.000	319
Common language	0.074	0.000	0.252	0.000	1.000	319
Same legal origin	0.279	0.000	0.449	0.000	1.000	319
Religious similarity	0.307	0.256	0.289	0.000	1.000	319
Genetic distance (Fst values x10000)	86.086	61.000	145.995	0.000	1244.000	267
Somatic distance	2.432	2.000	1.384	0.000	5.000	278
Number of years at war (1000-1970)	13.386	1.000	28.618	0.000	198.000	319
Number of years at war (1815-1970)	1.442	0.000	3.202	0.000	20.000	319
Number of years at war (1000-1815)	11.944	0.000	28.069	0.000	197.000	319
Press coverage	0.043	0.020	0.068	0.000	0.440	262
Differences in GDP per capita (percentage)	0.585	0.473	0.565	0.000	4.083	319

Panel B: Matrix of correlations

	Average trust	Common Language	Log of distance	Common Border	Same legal origin	Years at wars (1000-1970)	Religious similarity	Genetic distance	Somatic distance	Diff. in gdp procap	Press coverage
Average trust											
Common Language	0.4607 (0.0000)										
P-values											
Observations	319										
Log of distance	-0.5843 (0.0000)	-0.6964 (0.0000)									
P-values											
Observations	319	319									
Common Border	0.3876 (0.0000)	0.5927 (0.0000)	-0.6451 (0.0000)								
P-values											
Observations	319	319	319								
Same origin of the law	0.3361 (0.0000)	0.4817 (0.0000)	-0.4300 (0.0000)	0.4961 (0.0000)							
P-values											
Observations	319	319	319	319							
Years at war (1000-1970)	-0.0721 (0.1991)	-0.0988 (0.0780)	0.088 (0.1168)	0.1135 (0.0429)	0.1345 (0.0162)						
P-values											
Observations	319	319	319	319	319						
Religious similarity	0.4670 (0.0000)	0.3630 (0.0000)	-0.6140 (0.0000)	0.4483 (0.0000)	0.4472 (0.0000)	0.1017 (0.0711)					
P-values											
Observations	316	316	316	316	316	316					
Genetic distance	-0.5002 (0.0000)	-0.4085 (0.0000)	0.5824 (0.0000)	-0.4202 (0.0000)	-0.3905 (0.0000)	-0.0710 (0.2478)	-0.4125 (0.0000)				
P-values											
Observations	267	267	267	267	267	267	265				
Somatic distance	-0.4885 (0.0000)	-0.4123 (0.0000)	0.5123 (0.0000)	-0.4871 (0.0000)	-0.5661 (0.0000)	-0.041 (0.4957)	-0.4708 (0.0000)	0.5268 (0.0000)			
P-values											
Observations	278	278	278	278	278	278	275	263			
Diff. in per capita GDP	-0.4280 (0.0000)	-0.2845 (0.0000)	0.3206 (0.0000)	-0.3086 (0.0000)	-0.2205 (0.0001)	-0.0454 (0.4194)	-0.2777 (0.0000)	0.2988 (0.0000)	-0.2657 (0.0000)		
P-values											
Observations	319	319	319	319	319	319	316	267	319		
Press coverage	0.0522 (0.4005)	0.3514 (0.0000)	-0.3735 (0.0000)	0.4572 (0.0000)	0.4402 (0.0000)	0.3004 (0.0000)	0.1557 (0.0119)	-0.3031 (0.0000)	-0.0000 (1.0000)	-0.1622 (0.0085)	
P-values											
Observations	262	262	262	262	262	262	260	218	262	262	
Transportation costs	-0.3367 (0.0196)	-0.1621 (0.0003)	0.5846 (0.0000)	-0.4485 (0.0000)	-0.4967 (0.0000)	-0.3004 (0.0000)	-0.3925 (0.0001)	0.4441 (0.0000)	0.4521 (0.0000)	0.3696 (0.0000)	-0.3580 (0.0006)
P-values											
Observations	207	207	207	207	207	207	205	207	207	207	179

Panel C: Statistics of Canada

	Mean	Median	Std. Dev.	Min	Max	Observations
Log of export to partner country	14.79262	14.79733	1.583245	9.941217	17.82963	584
Average trust from importer to exporter	2.736455	2.737656	0.276172	1.99384	3.569197	584
Press coverage	0.039507	0.020673	0.04973	0	0.313644	584
Distance	6.857758	7.00996	0.687951	5.156525	8.121116	584
Common border	0.210616	0	0.408096	0	1	584
Common language	0.065068	0	0.246858	0	1	584
Religious similarity	0.330321	0.324747	0.254621	0	0.82643	584
Somatic distance	2.486301	3	1.20312	0	5	584
Same origin of the law	0.30137	0	0.459246	0	1	584
Numbers of years at war 1000-1815	23.99658	7.5	38.21614	0	197	584
Output importer	21353.37	20000	6949.855	9310	35100	584
Output exporter	20861.71	20000	7013.854	9310	35100	584
Transportation costs	5.189008	5.17615	0.075086	5.075174	5.517453	584
Correlation of consumption by industry between exporter and importer	0.893156	0.903117	0.059586	0.724143	0.988357	464

Panel D: OECD Foreign Direct Investment

	Mean	Median	Std. Dev.	Min	Max	Observations
Outward stock of FDI (log)	21.11472	21.39692	2.155451	12.41738	24.17526	428
Average trust from country to each partner	2.760419	2.765738	0.259903	2.103876	3.527406	428
Press coverage	0.051872	0.038305	0.056469	0	0.313644	428
Distance	6.771188	6.961451	0.722849	5.156525	8.121116	428
Common border	0.242991	0	0.429391	0	1	428
Common language	0.088785	0	0.284766	0	1	428
Same legal origin	0.324766	0	0.468836	0	1	428
Religious similarity	0.370434	0.337845	0.231608	0.014419	0.82643	428
Somatic distance	2.672897	3	1.27138	0	5	428
Numbers of years at war 1000-1815	29.50701	9	44.54219	0	197	428
Transportation costs	5.181547	5.153292	0.086133	5.075174	5.517453	428

Panel E: Portfolio data (Morningstar)

	Mean	Median	Std. Dev.	Min	Max	Observations
Percentage invested in partner country	0.038747	0.030742	0.028719	0.001898	0.141822	118
Inverse Covariance of stock market returns	-0.0704	-0.0405	0.152723	-0.58964	0.128104	118
Common border	0.228814	0	0.42186	0	1	118
Common language	0.039502	0	0.161499	0	1	118
Distance	6.786523	6.957813	0.621142	5.156525	7.861671	118
Press coverage	0.037208	0.021825	0.038247	0	0.179437	107
Average trust from investing country to partner	2.908322	2.900849	0.301368	2.305565	3.650389	118
Religious similarity	0.31798	0.322374	0.236312	0.011738	0.874539	118
Somatic distance	2.652542	3	1.263404	0	5	118
Distance in the characteristics of security laws (LLSV)	7.28017	6.705	2.323434	1.83	12.4	118
Numbers of Years at war 1000-1815	29.50848	14	39.77689	0	197	118
Same legal origin	0.245763	0	0.432374	0	1	118

Table 4:

Determinant of Trust

The dependent variable is the average trust across individuals of a given country toward citizens of other countries. To appropriately estimate the standard errors, we first regressed the observations on year fixed effects, then we took the residual and collapsed the observations by year. Trust is calculated by taking the average response to the following question: “I would like to ask you a question about how much trust you have in people from various countries. For each, please tell me whether you have a lot of trust, some trust, not very much trust or no trust at all”. The answers are coded in the following way: =1 (no trust at all), = 2 (not very much trust), =3 (some trust), =4 (a lot of trust). Common language is an indicator variable equal to 1 if the two countries share the same official language. Log distance is calculated using the distance in kilometers between the capital of the two countries. Common border is a dummy variable equal to 1 if two countries share at least one border (it is coded 1, if countries are the same). Number of years at war is calculated using the current nations borders as definition of the countries. Religious similarity measures the fraction of people with the same religious faith in the two countries. Genetic distance is the coancestry coefficient (Reynolds et al., 1983) calculated by Cavalli-Sforza et al. (1996). Somatic distance between two populations is based on the distance between three anthropometric measures: heights, hair colors (pigmentation), and cephalic index (Biasutti, 1954). Press coverage is the number of times a country name appears in the headlines of the major newspaper in each country over the total number of foreign news (source: Factiva). For each pair of countries, *i* and *j*, it is the percentage of news in the selected newspaper of country *i* about country *j*. Differences in GDP per capita is the average difference in percentage term over the period 1970-1996. Same legal origin is a dummy variable that is equal to 1 if two countries share the same origin of law (i.e., English, French, German, or Scandinavian), following the La Porta et al. (1998) classification. The regressions include country of origin and country of destination. The standard errors reported in parentheses are corrected for the potential clustering at the pair-of-countries level. Panel A shows the results for the entire sample, while Panel B shows the results restricted to countries belonging to the European Union.

The symbols ***, **, and * mean that the coefficient is statistically different from zero respectively at the 1%, 5%, and 10% level.

Panel A: Whole sample							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Common language	0.1078*	0.1123*	0.1019	0.0910	0.1411**	0.1086*	0.0869
	(0.0588)	(0.0665)	(0.0673)	(0.0647)	(0.0607)	(0.0610)	(0.0617)
Distance	-0.0816**	-0.0252	-0.0260	-0.0177	-0.0030	0.0022	0.0027
	(0.0402)	(0.0408)	(0.0412)	(0.0396)	(0.0326)	(0.0302)	(0.0307)
Common border	-0.0242	-0.0026	0.0025	-0.0145	0.0420	0.0422	0.0426
	(0.0525)	(0.0481)	(0.0486)	(0.0458)	(0.0454)	(0.0437)	(0.0433)
Number of years at war 1000-1970		-0.0007		-0.0006	-0.0005	-0.0005	-0.0005
		(0.0006)		(0.0005)	(0.0005)	(0.0005)	(0.0005)
Number of years at war 1000-1815			-0.0006				
			(0.0007)				
Number of years at war 1815-1970			-0.0034				
			(0.0044)				
Religious similarity		0.1867***	0.1839***	0.1552***	0.2179***	0.1920***	0.1717***
		(0.0549)	(0.0566)	(0.0548)	(0.0504)	(0.0492)	(0.0510)
Genetic distance (Fst)		-12.1283***	-12.0475***	-7.9091*			
		(4.4240)	(4.4273)	(4.5667)			
Somatic distance				-0.0303***	-0.0246***	-0.0206**	-0.0157*
				(0.0101)	(0.0094)	(0.0088)	(0.0086)
Press coverage					-0.9308**	-0.9858**	-1.1496***
					(0.4347)	(0.4269)	(0.4383)
Differences in GDP per capita (percentage)						-0.1072***	-0.1111***
						(0.0358)	(0.0354)
Same legal origin							0.0449
							(0.0408)
Dummy equal to 1 if country of origin is equal to country of destination	-0.1095	0.0290	0.0276	0.0897			
	(0.2559)	(0.2379)	(0.2379)	(0.2365)			
Country-of-origin fixed effects	YES	YES	YES	YES	YES	YES	YES
Country-of-destination fixed effects	YES	YES	YES	YES	YES	YES	YES
Standard error clustered per pair of country	YES	YES	YES	YES	YES	YES	YES
Observations	319	265	265	261	225	225	225
R-squared	0.822	0.812	0.812	0.822	0.871	0.881	0.882

Panel B: European Union sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Common language	0.0507 (0.0880)	0.0968 (0.0821)	0.0653 (0.0812)	0.0849 (0.0758)	0.1144 (0.0722)	0.1126* (0.0658)	0.0451 (0.0697)	0.0498 (0.0701)
Log (distance)	-0.1346*** (0.0467)	-0.0848** (0.0427)	-0.0892** (0.0434)	-0.0772* (0.0405)	-0.0628* (0.0321)	-0.0390 (0.0320)	-0.0370 (0.0321)	-0.0295 (0.0343)
Common border	-0.0374 (0.0583)	-0.0355 (0.0500)	-0.0191 (0.0513)	-0.0715 (0.0461)	-0.0391 (0.0437)	-0.0259 (0.0425)	-0.0204 (0.0421)	-0.0223 (0.0420)
Number of years at war 1000-1970		-0.0010 (0.0006)		-0.0009* (0.0005)	-0.0010** (0.0004)	-0.0009* (0.0004)	-0.0009** (0.0004)	-0.0010** (0.0004)
Number of years at war 1000-1815			-0.0009 (0.0007)					
Number of years at war 1815-1970			-0.0077 (0.0051)					
Religious similarity		0.2023*** (0.0589)	0.1922*** (0.0627)	0.1340** (0.0576)	0.1867*** (0.0498)	0.1790*** (0.0493)	0.1324*** (0.0487)	0.1288** (0.0498)
Genetic distance (Fst)		-9.1947* (4.8485)	-9.0239* (4.8330)	-4.2044 (5.0532)				
Somatic distance				-0.0510*** (0.0108)	-0.0453*** (0.0105)	-0.0395*** (0.0103)	-0.0292*** (0.0101)	-0.0289*** (0.0100)
Press coverage					-0.5051 (0.4016)	-0.6601* (0.3816)	-0.8034** (0.3861)	-0.7800** (0.3797)
Differences in GDP per capita (percentage)						-0.1000** (0.0411)	-0.1088*** (0.0390)	-0.1018** (0.0389)
Same legal origin							0.0853** (0.0421)	0.0776* (0.0432)
Transportation costs								-0.0009 (0.0011)
Dummy equal to 1 if country of origin is equal to country of destination	-0.4199 (0.2920)	-0.3459 (0.2315)	-0.3620 (0.2292)	-0.2941 (0.2334)				
Country-of-origin fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Country-of-destination fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Std.err. clustered per pair of country	YES	YES	YES	YES	YES	YES	YES	YES
Observations	222	219	219	219	177	177	177	177
R-squared	0.799	0.813	0.816	0.835	0.857	0.864	0.868	0.869

Table 5:

Effect of Trust on Trade

In Panel A the dependent variable is the log of the aggregate export volume from country i to country j , for a panel of 18 European Union countries during the period 1970-1996. Mean trust is the average level of trust between individuals of country j toward citizens of country i . Press coverage is the number of times a country name appears in the headlines of the major newspaper in each country over the total number of foreign news (source: Factiva). For each pair of countries, it is the percentage of news in the selected newspaper of country i about country j . Transportation costs among these countries are calculated following Giuliano, Spilimbergo, and Tonon (2006). The log of transportation cost between two countries is the log the shipping quotes in year 2006 collected by Import Export Wizard (IEW), a shipping company that calculates the surface freight estimates of transportation costs in U.S. dollars for a “1000 kg unspecified freight type load (including machinery, chemicals, etc.) with no special handling required, using the optimal combination of going through land and water to transport the goods.” Log distance is the log distance between the capital of the two countries. Common border is a dummy variable equal to 1 if the two countries share at least one border (it is coded 1, if countries are the same). Common language is an indicator variable equal to 1 if the two countries share the same official language. Output exporter and output importer are respectively the GDP of the exporting and importing country. Number of years at war is the number of years the two countries have been at war between 1000 and 1815 and have been calculated using the current nations borders as definition of the countries. Same legal origin is an indicator variable that is equal to 1 if two countries share the same origin of law (i.e., English, French, German, or Scandinavian), following the La Porta et al. (1998) classification. Correlation of consumption between the two countries is obtained by correlating the level of consumption by ISIC codes between country i and country j for years 1989-94 (Source: Nicita and Olarreaga, 2006). Consumption in each ISIC code/country is defined as GDP plus imports, minus exports. All regressions include fixed effects for the country of origin and for the destination country. The standard errors reported in parentheses are corrected for the potential clustering of the residual at the pair-of-countries level. Regressions in columns 1, 5, and 7 are OLS regressions. Regressions in columns 2, 3, 4, 6, and 8 are estimated using the generalized method of moments instrumental variables estimator (GMM-IV). In column 2 the instruments are religion similarity, somatic distance, and number of years the two countries have been at war between 1000 and 1815. In columns 3, 6, and 8 the instruments are religion diversity and somatic distance. In column 4 the only instrument is religion diversity. When the equation is overidentified by an abundance of instruments, a test of overidentifying restrictions, Hansen’s “J” statistic (1982), is also reported. The test is calculated from the first stage residuals of the estimation procedure. We also report the F-test of the excluded instruments. The first stage regressions are reported in the appendix of the paper.

In panel B the dependent variable is the log of the disaggregated (by industry) log of export volume for a panel of 18 European Union countries: the first 4 columns present the results for industries that produce goods traded in organized exchanges. The last four columns of Panel B includes industries producing differentiated goods. The classification of goods follows Rauch (1999).

The symbols ***, **, and * mean that the coefficient is statistically different from zero respectively at the 1% , 5%, and 10% level.

Panel A:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean trust of people in importing country to people in exporting country	OLS 0.2973** (0.1282)	GMM-IV 1.1644*** (0.3439)	GMM-IV 1.6512*** (0.4395)	GMM-IV 1.8318*** (0.6279)	OLS 0.2669** (0.1207)	GMM-IV 1.0809*** (0.3513)	OLS 0.3189** (0.1297)	GMM-IV 1.2328*** (0.4147)
Press coverage	0.3563 (1.1074)	1.6204 (1.0370)	0.6325 (1.0087)	0.6288 (1.0168)	-0.2549 (1.1039)	0.1654 (0.9986)	-1.9195* (1.0809)	-1.8654** (0.9235)
Transportation costs	-1.6731* (0.8610)	-0.7516 (0.8651)	-0.0717 (0.9796)	0.1249 (1.1069)	-0.2649 (0.7539)	0.3998 (0.8077)	0.2330 (0.7385)	0.8902 (0.8033)
Log (distance)	-0.3124*** (0.0955)	-0.2947*** (0.0941)	-0.3115*** (0.1018)	-0.3071*** (0.1043)	-0.4264*** (0.0956)	-0.4072*** (0.0943)	-0.5480*** (0.1125)	-0.5539*** (0.1135)
Common border	0.5107*** (0.1321)	0.4401*** (0.1256)	0.4523*** (0.1224)	0.4627*** (0.1261)	0.4530*** (0.1206)	0.4220*** (0.1126)	0.4572*** (0.1279)	0.4132*** (0.1280)
Common language	0.5844** (0.2390)	0.2797 (0.2514)	0.4871* (0.2836)	0.4915* (0.2889)	0.3669* (0.1902)	0.3307 (0.2122)	0.8783*** (0.2248)	1.0801*** (0.2656)
Output exporter	0.0000* (0.0000)	0.0001** (0.0000)	0.0001* (0.0000)	0.0001* (0.0000)	0.0000 (0.0000)	0.0000* (0.0000)	0.0000* (0.0000)	0.0001* (0.0000)
Output importer	0.0000* (0.0000)	0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000** (0.0000)	0.0000 (0.0000)
Number of years at war			0.0026** (0.0010)	0.0029** (0.0013)	0.0006 (0.0009)	0.0016* (0.0009)	0.0014 (0.0010)	0.0029*** (0.0011)
Same legal origin					0.4029*** (0.1164)	0.3351*** (0.1191)	0.3197** (0.1297)	0.1788 (0.1472)
Correlation of consumption between the two countries	YES	YES	YES	YES	YES	YES	YES	YES
Exporting country fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Importing country fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
St.err. clustered per pair of country	584	584	584	584	584	584	464	464
Observations	0.962				0.966		0.966	
R-squared		5.805	0.184			0.304		0.023
Hansen J statistic		0.055	0.668			0.581		0.879
Chi-sq P-val								
Test of excluded instruments:		F(3, 88) = 15.02	F(2, 88) = 18.19	F(1, 88) = 26.52		F(2, 88) = 22.76		F(2, 75) = 25.64
Instruments		Somatic distance, religion similarity, wars	Somatic distance, religion similarity	Somatic distance, religion similarity		Somatic distance, religion similarity		Somatic distance, religion similarity
(first stage regression in appendix)								

Panel B:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Organized exchange		Differentiated goods		Differentiated goods			
	OLS	GMM-IV	OLS	GMM-IV	OLS	GMM-IV	OLS	GMM-IV
Mean trust of people in importing country to people in exporting country	0.1936 (0.1483)	0.4405* (0.2577)	0.1913 (0.1411)	0.1613 (0.2362)	0.3864*** (0.1340)	2.1097*** (0.0729)	0.3418*** (0.1112)	1.4213*** (0.0706)
Press coverage	-3.1680*** (1.0094)	-3.1187*** (0.5444)	-3.2049*** (1.0207)	-3.2308*** (0.5423)	0.3236 (0.9857)	0.9308*** (0.1808)	0.0049 (0.9907)	0.4197** (0.1767)
Log (distance)	-0.4836*** (0.0748)	-0.4819*** (0.0565)	-0.5452*** (0.0734)	-0.5476*** (0.0613)	-0.3521*** (0.1009)	-0.3402*** (0.0170)	-0.4952*** (0.0866)	-0.4690*** (0.0180)
Common border	0.8926*** (0.1276)	0.8909*** (0.0541)	0.8608*** (0.1253)	0.8609*** (0.0553)	0.6820*** (0.1271)	0.6349*** (0.0165)	0.5979*** (0.1165)	0.5823*** (0.0166)
Transportation costs	-3.3422*** (0.9344)	-3.0916*** (0.7021)	-2.5677*** (0.9732)	-2.6464*** (0.7487)	-2.5977*** (0.8612)	-0.3930** (0.1878)	-0.8023 (0.6502)	0.3104 (0.1936)
Number of years at war	0.0018* (0.0010)	0.0022*** (0.0007)	0.0018* (0.0010)	0.0017** (0.0007)	0.0026** (0.0011)	0.0051*** (0.0002)	0.0024** (0.0009)	0.0039*** (0.0002)
Common language	0.8292*** (0.1374)	0.7991*** (0.0769)	0.7358*** (0.1454)	0.7366*** (0.0841)	0.8482*** (0.2117)	0.6942*** (0.0236)	0.5728*** (0.1611)	0.5108*** (0.0251)
Output exporter	0.0001** (0.0000)	0.0001** (0.0000)	0.0001* (0.0000)	0.0001** (0.0000)	-0.0000 (0.0000)	0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)
Output importer	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	0.0000 (0.0000)	-0.0000*** (0.0000)	-0.0000 (0.0000)	-0.0000*** (0.0000)
Dummy equal to 1 if countries have same origin of law	YES	YES	YES	YES	YES	YES	YES	YES
Exporting country fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Importing country fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	NO	YES	NO	YES	NO	YES	NO
St.err. clustered per pair of country	19797	19721	19797	19721	111830	111425	111830	111425
Observations	0.421	0.421	0.421	0.421	0.649	0.651	0.651	0.651
R-squared		0.000		0.000		0.000		0.000
Prob χ^2 F		0.007		0.003		114.529		121.634
Hansen J statistic		0.931		0.958		0.000		0.000
Chi-sq P-val		F(2, 88) = 16.91		F(2, 88) = 32.82		F(2, 88) = 20.02		F(2, 88) = 28.20
Test of excluded instruments (first stage with clustering):		Somatic distance, religion similarity		Somatic distance, religion similarity		Somatic distance, religion similarity		Somatic distance, religion similarity
Instruments								

Table 6:

Effect of Trust on Foreign Direct Investments

The dependent variable is the log of outward investment (stocks) from the OECD data (1970- 1996). Common border is a dummy variable equal to 1 if two countries share at least one border (it is coded 1, if countries are the same). Common language is an indicator variable equal to 1 if the two countries share the same official language. Common origin of the law is a dummy variable that is equal to 1 if two countries share the same origin of law (i.e., English, French, German, or Scandinavian), following the La Porta et al. (1998) classification. Religious similarity measures the fraction of people with the same religious faith in the two countries. Somatic distance between two populations is based on the distance between three anthropometric measures: heights, hair color (pigmentation), and cephalic index (Biasutti, 1954). Number of years at war have been calculated using the current nations borders as definition of the countries. Press coverage is the number of times a country name appears in the headlines of the major newspaper in each country over the total number of foreign news (source: Factiva). For each pair of countries, i and j , it is the percentage of news in the selected newspaper of country i about country j . All regressions include fixed effects for the country of origin and for the destination country. The standard errors reported in parentheses are corrected for the potential clustering of the residual at the pair-of-countries level. The symbols ***, **, and * mean that the coefficient is statistically different from zero respectively at the 1%, 5%, and 10% level.

	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	GMM-IV	OLS	GMM-IV	OLS	GMM-IV
Mean trust toward people in destination country	1.2121** (0.5202)	7.1313*** (2.3338)	0.9484** (0.4707)	4.5786*** (1.1701)	0.9537** (0.4447)	5.2496*** (1.4080)
Press coverage	0.4528 (2.7153)	7.2579 (4.9998)	-0.6107 (2.3174)	3.8034 (2.9480)	-0.6085 (2.3314)	4.4221 (3.0928)
Log (distance)	-0.7892** (0.3790)	-0.4605 (0.5330)	-0.8081*** (0.3030)	-0.6117 (0.3957)	-0.8120** (0.3128)	-0.8296** (0.3820)
Common border	0.2135 (0.2804)	-0.2798 (0.5037)	0.0748 (0.2594)	-0.2394 (0.3286)	0.0754 (0.2611)	-0.2217 (0.3291)
Common language	0.0572 (0.4498)	-0.8946 (0.8206)	-0.6738 (0.4399)	-1.1194** (0.5583)	-0.6775 (0.4528)	-1.3917** (0.6172)
Number of years at war	0.0054* (0.0027)	0.0124*** (0.0040)	0.0041 (0.0027)	0.0083** (0.0033)	0.0041 (0.0025)	0.0105*** (0.0035)
Same origin of the law			1.2223*** (0.3193)	1.0271*** (0.3465)	1.2266*** (0.3546)	1.2652*** (0.4151)
Transportations costs					0.0838 (2.4258)	5.1703* (2.6387)
Investing country fixed effects	YES	YES	YES	YES	YES	YES
Destination country fixed effects	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES
St.err. clustered per pair of country	YES	YES	YES	YES	YES	YES
Observations	428	428	428	428	428	428
R-squared	0.842		0.867		0.867	
Prob χ^2 F		0.000		0.000		0.000
Hansen J statistic		0.331		0.146		0.103
Chi-sq P-val		0.565		0.702		0.748
Test of excluded instruments in first stage:		F(2,73) = 9.19		F(2, 73) = 13.16		F(2, 73) = 10.57
Instruments		Somatic distance, religion similarity		Somatic distance, religion similarity		Somatic distance, religion similarity

Table 7:

Effect of Trust on Portfolio Investment

The dependent variable measures the percentage of net portfolio investment of a given country into another country. Specifically, the dependent variable is the stock of cross-border holdings of equities and long- and short-term debt securities valued at market prices prevailing at the end of 2001 (from Morningstar data) divided by the sum of all foreign equity holdings plus market capitalization- of foreign liabilities. The sample includes all European Union countries and Switzerland. Control variables include the inverse of the covariance of stock market returns, calculated using monthly data for each country (DATASTREAM). Border is a dummy variable equal to 1 if two countries share at least one border (it is coded as 1 if countries are the same). Common language is an indicator variable equal to 1 if the two countries share the same official language. Same origin of the law is a dummy variable that is equal to 1 if two countries share the same origin of law (i.e., English, French, German, or Scandinavian), following the La Porta et al. (1998) classification. Religious similarity measures the fraction of people with the same religious faith in the two countries. Following Vlachos (2004), distance in security law regulation is the sum of the absolute difference between the score in 21 characteristics analyzed in La Porta et al. (2006). Somatic distance between two populations is based on the distance between three anthropometric measures: heights, hair colors (pigmentation), and cephalic index (Biasutti, 1954). Number of years at war have been calculated using the current nations borders as definition of the countries. Press coverage is the number of times a country name appears in the headlines of the major newspaper in each country over the total number of foreign news (source: Factiva). For each pair of countries, i and j , it is the percentage of news in the selected newspaper of country i about country j . All regressions include fixed effects for the country of origin and for the destination country. The standard errors reported in parentheses are corrected for the potential clustering of the residual at the pair-of-countries level. The symbols ***, **, and * mean that the coefficient is statistically different from zero respectively at the 1%, 5%, and 10% level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	OLS	GMM-IV	OLS	GMM-IV	OLS	GMM-IV	OLS	GMM-IV
Mean trust toward	0.1116**	0.2134**	0.1370**	0.2743***	0.0365	0.1567	0.1444***	0.2807***
people in destination country	(0.0482)	(0.0921)	(0.0548)	(0.0971)	(0.0425)	(0.0980)	(0.0508)	(0.0929)
Inverse Cov. of stock market returns	-0.0013	0.0156	-0.0018	0.0167	-0.0262	-0.0052	-0.0084	0.0081
of country of origin and destination	(0.0331)	(0.0298)	(0.0399)	(0.0397)	(0.0359)	(0.0359)	(0.0383)	(0.0357)
Common border	-0.0003	-0.0036	-0.0121	-0.0137	-0.0254	-0.0168	-0.0076	-0.0073
	(0.0278)	(0.0239)	(0.0303)	(0.0255)	(0.0255)	(0.0215)	(0.0292)	(0.0238)
Common language	0.0081	-0.0043	-0.0186	-0.0434*	-0.0495**	-0.0557***	-0.0167	-0.0418**
	(0.0217)	(0.0226)	(0.0226)	(0.0225)	(0.0231)	(0.0198)	(0.0207)	(0.0204)
Log (distance)	-0.0334	-0.0285	-0.0257	-0.0169	-0.0342	-0.0242	-0.0209	-0.0095
	(0.0266)	(0.0226)	(0.0274)	(0.0230)	(0.0226)	(0.0196)	(0.0267)	(0.0227)
Number of years at war	0.0004*	0.0003***	0.0002	0.0002	-0.0001	0.0000	0.0004**	0.0003**
	(0.0002)	(0.0001)	(0.0002)	(0.0001)	(0.0002)	(0.0001)	(0.0002)	(0.0001)
Press coverage			0.5363**	0.6489**	0.2561	0.3857	0.4742*	0.5857**
			(0.2503)	(0.2602)	(0.2201)	(0.2419)	(0.2386)	(0.2485)
Same legal origin					0.0807***	0.0516**		
					(0.0213)	(0.0213)		
Distance in security law regulation							0.0064*	0.0076***
							(0.0036)	(0.0029)
Investing country fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Destination country fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
St.err. clustered per pair of country	YES	YES	YES	YES	YES	YES	YES	YES
Observations	118	118	107	107	107	107	107	107
R-squared	0.403		0.426		0.527		0.445	
Prob χ^2 F		0.000		0.000		0.004		0.000
Hansen J statistic		0.108		0.576		2.100		0.566
Chi-sq P-val		0.743		0.448		0.147		0.452
Test of excluded		F(2,64)		F(2,63)		F(2,63)		F(2,63)
instruments in first stage:		=13.53		= 10.52		= 6.19		=9.77
Instruments		Somatic		Somatic		Somatic		Somatic
		distance,		distance,		distance,		distance,
		religion		religion		religion		religion
		diversity		diversity		diversity		diversity