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CULTURAL BIASES IN ECONOMIC EXCHANGE

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### **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 such as religion, a history of conflicts, and genetic 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 good that are more trust intensive and doubles or triples when trust is instrumented with its cultural determinants. We conclude that perceptions rooted in culture are important (and generally omitted) determinants of economic exchange.

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

Duke of Wellington

The Webster dictionary defines culture as “the customary beliefs, social forms, and material traits of a racial, religious, or social group.” In this paper we focus on the first dimension of culture (i.e., customary beliefs) and we ask how these customary beliefs (as those expressed by the Duke of Wellington) impact economic choices.

In doing so we face both a theoretical and an empirical challenge. From the theoretical point of view, we need to explain how these customary beliefs may enter into the standard economic model. Since Muth (1960, 1961) and Lucas (1976) nearly all research in economics has endogenized beliefs, under the rational expectations assumption that subjective and objective beliefs coincide. But the assumption that agents share common prior beliefs (necessary for rational expectations) is increasingly under attack. The common-prior assumption is quite restrictive and does not allow agents to “agree to disagree” (Aumann (1976)). Perfectly rational people might have different priors. In fact, the common use of the word rational only requires beliefs to be Bayesian. But the Bayesian paradigm does not address the question of the rationality of prior beliefs (Gilboa, Postlewaite, and Schmeidler, 2004). One possible way out is to develop a framework for a rational choice of prior beliefs by an individual. This is the avenue pursued by Brunnermeier and Parker (2004) in their optimal expectation approach. Alternatively, one can analyze empirically how these prior beliefs are influenced by culture. Paraphrasing Einstein we identify culture as “the collection of prejudices acquired by age eighteen.”<sup>1</sup> This is the avenue we will follow in this paper.

In particular, we focus on the effect that customary beliefs have on international trade and investments via the effect they have on the degree of trust citizens of a country have toward citizens of other 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 will prevent otherwise profitable trade and investment opportunities. In relational contracts what matters is personalized trust, the mutual trust people developed through repeated interactions (Grief, 1993). For the development of anonymous markets, however, what matters is generalized trust, the trust people have toward a random member of an identifiable group (e.g., McEvily et

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<sup>1</sup>On the economic effect of prejudice see the pioneer work of Becker (1957)



al. (2002) and Guiso, Sapienza, and Zingales (GSZ)(2004)). In this paper, we focus on the role customary beliefs have on trust and argue that culture plays a role in the formation of trust, beyond what objective considerations would justify. We then, show how these cultural biases impact international trade and investments.

From an empirical point of view, the challenge we face is how to separate customary beliefs from rational expectation beliefs. We do so in two steps. First, we use a rich dataset that reports the trust that individuals in a set of countries have towards generic individuals in each country that belongs to the set. Under rational expectations, a country of destination fixed effect captures the true trustworthiness of the citizens of that country. This allows us to separate the objective characteristics from customary beliefs.

To see how it works consider a recent survey carried out by the 3i/Cranfield European Enterprise Center, where European managers of five different nationalities were asked to rank managers of the same five countries on the basis of their trustworthiness.<sup>2</sup> The average results, which are summarized in the table below, highlight three facts.

	Britain	Germany	France	Italy	Spain
<b>British view</b>	1	2	4	5	3
<b>German view</b>	2	1	3	5	4
<b>French view</b>	4	1	2	5	3
<b>Italian view</b>	3	1	2	4	5
<b>Spanish view</b>	2	1	4	5	3

First, there seems to be some common views, which in a rational expectations world coincide with the objective characteristics of the country being trusted. Everybody ranks German managers relatively high, while Italian ones relatively low. Second, there seems to be a “home-country effect” in expectations: manager trusts 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. Third, there are match-specific attitudes. French managers, for instance, rate British managers much lower than any other ones except the Italians. This seems inconsistent with the ranking chosen by every other group. British managers reciprocate (as the duke of Wellington’s opening quote

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<sup>2</sup>In total 1,016 managers (managing companies under 500 employees) responded from five major EC countries: Britain (433 responses), France (127), Germany (135), Italy (185) and Spain (136). See <http://www.cranfield.ac.uk/docs/spss/spss.html>.



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). Hence, we will use the idiosyncratic component of trust in this larger dataset as a proxy for the “customary beliefs.”

Even this measure of “customary beliefs” , however, could be contaminated by other factors. For example, the average Canadian has more information about Americans than the average Japanese and this better information can significantly affect (upward or downward) her degree of trust.

Hence, the second step in our procedure is to regress the residual trust on a series of variables that proxy for difference in information and another set that proxy for culture.

As measures of information we use the geographical distance between the two countries, their proximity, and the commonality between the two languages.<sup>3</sup> We also collected the number of times a country name appears in the headlines of the major newspaper in each country, as a measure of the degree of information this country has. These variables seem to have limited power to explain why some countries trust others more. If anything better newspapers’ coverage leads to less trust.

A variable that could proxy both for information and for culture is the commonality in the legal systems. We find that citizens from a country trust more citizens from another when the two countries share the same type of legal system (i.e., both have a civil code or both a common law system).

But we also find more convincing evidence of the effect of cultural stereotypes on trust. For example, we know that people with similar cultural backgrounds and similar appearances tend to trust each other more (McPherson et al. 2001). As a measure of similarity in culture that is unrelated to better objective reasons to trust we use commonality of religion. As a measure of somatic similarities, we use the genetic distance between indigenous populations, as computed by Cavalli Sforza et al. (1993). While genetic distance does not necessarily express itself in somatic differences, it does represent the evolutionary distance between two populations.

We find that both these variables are important in explaining trust, not only from a statistical point of view, but also from an economic one. Commonality of religion has a positive impact and its effect is important: compared to a case where religion is not shared, a match where 90

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<sup>3</sup>In 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.



percent of the citizens share the same religion (e.g. Italy and Spain) raises trust by 6 percent of its sample mean. Citizens of a country also tend to trust more citizens of countries that are genetically closer. One standard deviation increase in genetic distance lowers bilateral trust by 6 percent of the sample mean.

To capture the implicit positive or negative bias against other nations present in a country's cultural tradition, we also 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 have been fought against Austria, Italian students may develop, as our data show, a negative image of Austrians. These findings are consistent with Bornhorst et al (2004), who find that cultural stereotypes affect the level of trust in an experimental setting.

Having established an effect of "culture" on priors, we then use these cultural variables as instruments to show how culture affects economic exchange between two countries through its impact on trust.

We find that a higher level of relative trust can explain cross country trade beyond what extended gravity models can account for. At sample means, a one standard deviation increase in the trust of the importer toward the exporter raises exports by 32 percent.

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 Rauch (1999) goods classification. Consistent with trust causing trade, the effect is much stronger for differentiated goods than for commodities.

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 and lower trade. If this were the case, however, the more information a French has about British, the less he will trust them. By contrast, if culture works through priors, the more information, the less its role in affecting trade should be. Consistent with our hypothesis that culture works through people's priors, we find that the effect of trust is reduced if a country is



more exposed to the news of another country.

We also show that the degree of relative trust affects the pattern of international diversification. Portfolio investments are heavily tilted toward countries whose citizens are considered relatively more trustworthy: one-standard deviation increase in trust doubles the average share of investment in a country.

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 a country whose citizens it trusts more. Hence, the correlation between trust and economic exchange seems to be both economically important and pervasive.

We then instrument trust with its cultural components (the history of wars, and the commonality in religion and in ethnic origin), which are also the drivers of stereotypes. Since these factors are unlikely to have been driven by recent trade or investment flows, we can exclude the reverse causality question. In fact, to be sure, we drop the wars during the last 200 years, the ones that are more likely to have affected today's trade patterns, and find even stronger effects.

Our IV estimates are between two and three times larger than our OLS one. Hence, not only trust is an important factor in determining the pattern of economic exchange, but its cultural component seems to be particularly important.

While several papers have tried to explain the average level of trust in a country (e.g., la Porta et al. (1997) and Alesina and La Ferrara (2002)), we are the first to estimate and try to explain the *relative* levels of trust across different nations. Such difference is important because countries differ widely in their institutional settings and institutional characteristics tend to be highly correlated, so it is extremely difficult to disentangle the driving force. By contrast, we can perfectly 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 (2002). 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 number of local branches of foreign banks. Our paper is also related to Morse and Shive (2004), Cohen (2004), De Groot et al. (2003) and Vachlos (2004). Morse and Shive (2004) relate portfolio choices to the degree of patriotism of a country. Cohen (2004) shows that employees' bias toward investing in their own company is not due to information, but to some form of loyalty toward their company. Both these papers, thus, illustrate one specific dimension in which cul-



tural biases can affect economic choices. Our paper uses a broader definition of cultural bias and tries to show the pervasiveness of its effects. On the other hand, De Groot et al.(2003) and Vachlos (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.

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

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 portfolio investments, and Section VI on foreign direct investments. Finally, Section VII concludes.

## I Theoretical Framework

How does trust enter economic decisions? One way to model trust is as 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 is. In such a case, the role played by trust would be second order: except for very high level of risk aversion, trust modelled in this way is bound to have very little impact on decisions.

Alternatively, trust (or at least the cultural component of trust) can be modelled 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 (2002).

Consider two parties,  $A$  and  $B$ , who can engage in some profitable trade. Let 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 expenses 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 got 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  $\pi$  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** *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 undertaken.*

A good example of Proposition 1 is provided by the unrealized meeting between Steve Jobs and IBM. According to Steve Job 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 to become a Microsoft.<sup>4</sup> 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 is unlikely to enter any economic transaction with  $B$ . The relevant question, then,

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<sup>4</sup>We thank Luca Anderlini for suggesting this example.



is how  $A$  will form an expectation about this probability  $\pi$ . 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 GSZ (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. Hence, it is logical to assume that education plays a big role in forming these expectations. Furthermore, in GSZ (2003) we find that religious beliefs *of the trusting person* affect how much a person trusts another. 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, 2003). 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. 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, in complementary fashion (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 countries. The number of countries sampled varies over time: they 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, Britain, Northern Ireland, Greece, Spain, Portugal, East Germany, Norway, Sweden, Finland, and Austria).

One distinct and unique 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 EU 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 this question and the two following others: 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 (number between zero and 100) that he or she returns the money?" 2) "How good are you (4 categories) in detecting people who are trustworthy?" (Guiso et al. (2005)). We find that the first question is highly statistically correlated with the measure of trust used in this paper, while the second one not (the sign is actually negative, albeit not statistically significant). Hence, in the rest of the paper we feel legitimated to assume that the reported level of trust reflects the subjective probability that a random person is trustworthy

For our purposes, we have first re-coded the answers to the trust question setting them =1 (no trust at all), = 2 (not very much trust), =3 (some trust), =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 EU 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. Three features are noteworthy. First, there is considerable variation in the amount of individuals who in each country trust other individuals in other countries. For example, the average level of trust ranges from a minimum trust of 1.33 (this is the average trust of Greek citizens toward Turks) to a maximum of 3.69 (the average trust of Finns toward Finns).

Second, individuals tend to trust more their fellow citizens, as the larger values on the main diagonal show. But there are exceptions to this pattern. For instance, Danish and Swedish trust their neighbors from Norway even more than themselves! This is hardly consistent with differences in trust being driven by differences in information concerning the other countries citizens (which should decay with distance), but can be explained by opinions on trustworthiness being



highly affected by cultural stereotypes. Similarly, it is hard to explain only with information the fact that the British tend to trust the French even less than they trust the Italians and the Spanish (only 8 percent of the British trust fully the French) and much less than they trust the Belgians and the Dutch; and even more difficult would be to reconcile with information the fact that the French reciprocate, trusting the British as much as they trust (little) the Greeks.

Finally, it is clear that there are systematic differences in how much a given country trusts and how much is trusted by others (see the last row and last column of Table 1, Panel A). For instance, the Portuguese are those who trust the least (only 10 percent report that they trust a lot on average) and the Swedish those who trust the most (40 percent report they trust others a lot on average); furthermore, the Turkish are the least trusted (6 percent trust them fully on average) and citizens of Switzerland the most (29 percent trust them fully on average). Obviously, these "country of origin" and "country of destination" effects may easily reflect systematic features of the country that trusts or is trusted. 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 effects and country of destination effects leave a lot of variation unexplained.

This effect is visible in Table 2 - Panel A that shows the results of a regression of the average trust of a country versus others when full sets of country of origin dummies, country of destination dummies, and years dummies are inserted.

In Figure 1 we report the level of the country of origin dummy relative to Ireland. A Swedish citizen trusts others 16 percent more on average than an Irish citizen and 26 percent more than a Greek. Figure 2 reports the country of destination fixed effect relative to Ireland. On average a Swiss is trusted 15 percent more than an Irish and 42 percent more than a Turk. 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).

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.

### III What explains relative 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" view 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, 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 relative trust.

Relative trust among each pair of countries will be affected by match-specific variables that impinge on the view that the citizens of the two countries have of each other. In particular, a citizen's prior about the reliability of another country citizen could reflect both specific information and cultural "stereotypes" assimilated at school or informally through word-of-mouth in society.

#### 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.<sup>5</sup> We also add a dummy variable to indicate when two countries share a common land border (Frankel et al. (1995)). As measure of language commonality we use

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<sup>5</sup>This 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 the unit circle between country centroids (Boisso and Ferrantino, 1997)) and great circle between largest cities (Fitzpatrick and Modlin, 1986).



the products of the percentage of people who speak the same language in each pair of countries, summed across all primary languages spoken in those two countries.<sup>6</sup>

To measure the level of information citizens of one country have of citizens of other countries we follow Rey and Portes (2002) 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 country  $i$  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 La Porta et al. (1998) classification of legal origin and construct a dummy variable equal to one when the legal system of two countries has a common origin (both common law or both coded law). Commonality in legal origin may in principle reflect the fact that citizens of countries having similar legal systems trust themselves more because it is easier for them to obtain legal justice in case of deviation from the legal contract.<sup>7</sup> However, common law is likely to be correlated with other cultural variables and common heritages, which may affect cultural biases. For example, in our sample common law is highly correlated with common origin of the language, an indicator variable that is equal to one if the countries belong to the same hindo-european family of languages (Encyclopedia Britannica, 2004).

## B Proxies for cultural stereotypes

We measure cultural stereotypes with three variables, the history of wars between two countries in the last millennia, the commonality in religion, and the similarity in ethnic origin.

The first measure is the number of years a country pair has been engaged in a war since the end of the first millennium until 1970, where we use today's borders to decide whether a country was engaged in a war against another. Precisely, we construct two measures. The first one measures the number of years at war between each pair of countries 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

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<sup>6</sup>See Boisso and Ferrantino (1997). We use as alternative an indicator variable equal to one if the pair of countries share an official language. This variable is from Jon Haveman's website: <http://www.macalester.edu/research/economics/PAGE/HAVEMAN/Trade.Resources/TradeData.html>. The results remain substantially unchanged.

<sup>7</sup>See Cornell and Welch (1996)



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 1,000. Interestingly, cultural formation at school not only 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), but it also shapes a citizen opinion and contribute to today’s stereotypes. Furthermore, historical facts are interpreted with the lenses of the currently ruling group (and this is why we reconstruct wars using today’s borders).<sup>8</sup>.

The second measure of cultural biases 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  $i$  that have religion  $k$  and then summing across  $k$  ( $k = \text{Catholic, Protestant, Jewish, Muslim, Hindu, Buddhist, Orthodox, no-religion, other affiliation}$ ). To calculate this variable we use the percentage of religious and non-religious people belonging to each country from the WVS.

Our third measure is the commonality in ethnic origin. To measure this last variable we use the genetic distance between indigenous population as developed by Cavalli-Sforza et. al.(1996).<sup>9</sup> 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 which was discovered at the beginning of last century. While ABO alleles are present in all population, the frequency of each allele varies a lot across populations. For example, the O allele is frequent in 61 percent of African population and 98 percent in American Natives populations. These differences in alleles hold true for other genes or DNA sequences, as well. As a first approximation, Cavalli-Sforza measure of genetic distance sums the differences in frequencies of these polymorphisms to derive a measure of how different the genetic composition of two population is.

We use genetic distance because it correlates with anthropometric traits (Cavalli-Sforza et al. (1996) and Gonzalez-Jose et al. (2004)). That people “love those who are like themselves” was

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<sup>8</sup>For instance, the history that we are taught at school gives a certain representation of the facts that characterize the evolution of our nation vis--vis the other countries, and this representation typically reflects the point of view of the winner. This manipulation is clearly manifest in non-democratic governments which typically exercise a strong control on what is taught in school - particularly history - in order to manipulate their citizen’s opinions. For example, in Egypt they celebrate the “victory” against Israel in the Kippur War. But some form of manipulation is present also in democratic societies

<sup>9</sup>For a more detailed description of this measure see the Appendix.



already recognized by Aristotle. In our sample we can see that this love for similar translates into higher levels of trust: in almost all the countries people trust much more a generic fellow citizen than a generic citizen of any other country. The only exceptions are Scandinavian countries where sometimes they trust countrymen from another Scandinavian country than a fellow citizen.

Summary statistics on these variables and trust are reported in Table 3, Panel A. Their cross correlation matrix (after controlling for country of origin and destination fixed effects) is shown in Panel B.

## C Empirical results

In Table 4 we report the results of our estimates on the determinant of relative trust. Our dependent variable is average trust.<sup>10</sup> To avoid understating the standard errors due to repeated observations, we follow Bertrand, Duflo, and Mullainathan (2004) and collapse the data by taking time averages of our right and left-hand side (after partialling out time effects). Panel A shows the result for the whole sample, while Panel B focuses on the set of European Union countries that we will use in our trade regressions.

The first column in Panel A reports the results of regressing the average level of trust of citizens of country  $i$  to citizens of country  $j$  on the information proxies. In principle, it is not obvious what the effects of these variables should be. For instance, geographical proximity may give rise to more frequent interactions between two country citizens and sustain trust this way; but common borders may be the origin of frictions and expose populations to wars, which cause mistrust. Alternatively, distance may be a proxy for information, as it may be common language, and information may affect trust. Even in this case, however, the correlation is far from obvious: more information allows to make more precise inference but does not necessarily imply more or less trust on average. The estimates are consistent with these conjectures: neither distance nor common border affects the trust of a country towards another. Common language instead has a positive and statistically significant effect: two countries with the same primary language trust each other 9 percent more.

Commonality of legal origin has a positive effect on trust: citizens of countries that have a similar legal system tend to trust each other more. The effect is small, but economically significant: other things being equal moving from a different legal system to a common one

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



increases the amount of relative trust by 3.6 percent of its sample mean.

In column 2 we introduce cultural variables. The results show that cultural factors are overall important and their effect decreases the role of the information-based variables. Commonality of religion has a positive impact: compared to a case where religion is not shared, a match where 90 percent of the citizens share the same religion (e.g. Italy and Spain) raises trust by 6 percent of its sample mean. The coefficient of genetic distance shows that citizens of a country tend to trust more citizens of countries who are genetically closer. A one standard deviation increase in genetic distance lowers bilateral trust by more than 8 percent of the sample mean. The number of years two countries have been at war has a negative effect on match-specific trust, though in this specification is significant only at the 15 percent level.

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 biases against an enemy fade over time, the impact of recent wars is five times that of distant wars. In the whole sample, neither effect is significant, but when we restrict it to European countries (Panel B) the effect of recent wars is twice as large and significant at the 5 percent level.

These effects are not driven by the home bias in trust. In fact, in regressions 1-3 we insert a variable equal to one 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 4 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 newspaper coverage. The coefficient is negative but not statistically significant. This result suggests that it is not true that on average people trust more whom they know better. In fact, conditional on the other factors, if anything there is a positive bias in trust for people from countries we do not know much of. This bias, then, is corrected as more information becomes available. Another possible interpretation is that newspapers tend to report bad news and this tend to create a negative bias, which is stronger the more news about a country are reported.<sup>11</sup>

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<sup>11</sup>To 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 five 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 (maximum 3 answers possible)?" We coded 1 if country  $j$  was mentioned



Alesina and La Ferrara (2002) document that in the United States differences in income are important factors in explaining trust within a community. For this reason, in column V we insert as additional control the absolute difference in GDP per capita between each country pair. As implied by Alesina and La Ferrara (2002), this variable has a negative and statistically significant effect on average trust, but the impact of all the other variables remains unchanged.

Finally, in Panel B we re-estimate all the above specifications restricting the sample to European Union countries, which we will use in our trade and investment analysis. The effects are very similar to the one found in the whole sample. The main difference is that the effect of wars is significant.

## 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 1 suggests, that trust (or lack of thereof) can have first order economic effects? More importantly, can we establish that the cultural bias in trust have an impact on economic exchange? To do so we try to see what is the effect of relative trust when inserted in traditional models of economic exchange across countries. We start with trade of good and services.

### A Data

The first variable we use is data on trade of goods and services assembled by the Statistics of Canada. The World Trade Database is derived from United Nations COMTRADE data. Its advantages over other datasets is that it provides bilateral trade statistics at the 4-digit SITC level.<sup>12</sup> This database provides time-series of trade value, disaggregated according to trading partner and 4-digit SITC level, for the period 1970-1996. Of this long panel we only use data for the years when trust survey data are available (1970, 1976, 1980, 1986, 1990, 1993, 1994, and 1996).

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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.

<sup>12</sup>We also used an aggregate OECD dataset, based on custom data, and found very similar results.



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 relative trust on the amount of trade between two countries. The dependent variable is logarithm of export from country  $i$  to country  $j$ .

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 and of fixed effects for both the importing and the exporting countries, as well as year dummies and 4-digit SITC industry dummies.<sup>13</sup> The standard errors reported in brackets are clustered by exporting country.

As in the standard gravity equation, the distance between two countries negatively affects the level of export, while the presence of a common border, of a common language positively affect it.

Unlike the standard gravity equation, the GDP of the importing country and the GDP of the exporting country are not very economically significant. But in our specification 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.

Most importantly (from our point of view), after controlling for all these variables our measure of trust has a positive and statistically significant effect on trade.

There are at least three reasons to worry about this OLS result. First, while it is possible that trust fosters trade, it is equally possible that trade breeds trust. In fact, even our simple model in section 1 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.

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<sup>13</sup>Anderson 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.



As instruments we use the cultural determinants of trust (history of war, commonality of religion, and genetic 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 plausible that wars may disrupt trade (or even foster it). For this reason, we use as an instrument only the number of years of wars until 1815, with the understanding that the direct effect of distant wars has faded away, while the cultural effect is more persistent. Interestingly, the number of years at war till 1815 and between 1815 and 1970 is not significantly correlated (point estimate of 0.06). Alternatively, we drop this instrument all together.

Commonality of religion is unlikely to have a direct effect on trade, especially once we control for distance, commonality of language, and common border. Poland, for instance, is not Catholic because it traded with Rome more than with Berlin. In fact, Poland embraced the Reformation and returned to Catholicism only when Jesuits succeeded in converting its King.

Also genetic distance is unlikely to have a direct effect on trade, except if it is a proxy for well established routes of communication. One can argue that populations move along the same routes traders use. While possible, we regard this possibility as unlikely. The genetic differences captured by Cavalli-Sforza measure reflect Neolithic migration into the continent (Menozzi et al., (1978) and Ammerman and Cavalli-Sforza (1985)).<sup>14</sup> His studies suggest that despite more recent invasions from external populations (such as the Moors and the Mongols) and many large-scale internal population movements, today's European genetic map still reflects earlier migrations from Asia and Africa. For example, even if the Huns arrived in France and Italy relatively recently (450 A.D.) and the Turks arrived in Austria at the end of the eighteenth century, the distribution of genes in Europe shows that these incursions had few genetic consequences (Cavalli-Sforza, 2000). Since genetic differences reflect the history of very ancient migrations from Asia and Africa (using genetic material researcher have been able to establish that Europeans are about two-thirds Asian and one third African) we regard it as unlikely that they are correlated with today's patterns of trade.

The second column of Table 5- Panel A shows the IV estimates, when all these three in-

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<sup>14</sup>These studies show genetic evidence consistent with archeological evidence that various group of Neolithic individuals, while admixing with local hunter-gather population, bore a significant fraction of the genes of today's European populations.



struments are used.<sup>15</sup> Not only the effect of trust remains significant, but its magnitude more than doubles: one-standard deviation increase in trust leads to an increase in trade of about 30 percent.

This result suggests that our measure of trust is a noisy measure of the true trust between two countries and when we instrument we reduce the downward-bias effect of this noise. One potential concern with our instrumental variable regression 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. We find that the significance level is higher than 3% , where Stock and Yogo (2002) recommend an F test with at least a 5% significance level.

In Column III and IV we re-estimate the OLS and IV introducing our proxy for information (newspaper coverage). As discussed in Portes and Rey (2003), information is positively associated with trade, although the direction of causality is questionable. The coefficient, however, is not statistically significant. After controlling for the availability of information, trust remains an important determinant of trade patterns.

Finally, in column V and VI we introduce an indicator variable equal to one if two countries both have a coded law or a common law (see La Porta et al. (1998)). Common origin of law has a positive and significant effect on trade. This result can be seen as evidence that similar institutions foster more trade because they provide more guarantee to the parties involved (De Groot et al, (2003) and Vachlos (2004)).

In Table 5- Panel B we test whether the impact of trust on trade varies according to what theory would suggest. According to our simple model, the importance of trust, as initial prior about a group, should be stronger when people lack information and it should progressively fade away as more direct information becomes available. If we use news coverage as a proxy for information, then, we expect that the impact of trust should decline at higher level of news coverage. This is exactly what we see. Computed at the average level of coverage, the effect of trust is 25 percent higher than before and this effect is statistically significant in the IV regression.

This evidence can help us distinguish our hypothesis from a possible alternative. Culture

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<sup>15</sup>When we drop the history of wars the results are unchanged.



could have an effect through preferences. The citizens of a country (e.g., the French) may mistrust those of another (e.g., the British) because they rationally anticipate that the latter will derive a special pleasure from hurting them. If this were the case, more information will not alleviate this mistrust (in fact it might exacerbate it). Since we find that more information does weaken the effect of trust, we can dismiss this alternative.

To gain more confidence on the causal interpretation of our results, in Table 5- Panel C we look at whether the effect of trust differs according to what our hypothesis predicts. Our hypothesis predicts that trust should matter more for goods whose quality can differ greatly. 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 (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 classification can also be interpreted as a classification of the degree of trust-intensiveness of the different goods.<sup>16</sup> The first four columns of Table 5- Panel C presents our basic regressions (both OLS and 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. The effect of trust is consistently stronger for differentiated goods: trade increases 36 percent versus 16 percent in response to one-standard deviation increase in trust. 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 by 60 percent. Consistent with Rauch (1999) we also find that press coverage have differential impact on the two types of goods.

## V International Portfolio Diversification

The second type of international exchange where we want to explore the effect of trust is portfolio diversification. In deciding where to invest its savings each individual and/or institution face a wide arrays of countries to choose from. In this choice there are at least two factors where trust

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<sup>16</sup>Rauch(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.



might play a role: an investor should trust the reliability of the accounting numbers released by companies located in that country and it should trust the Government of that country not to expropriate his investment. Since we will control for country of destination fixed effects, the "objective" trustworthiness should already be controlled for. Hence, our measure of trust will capture either some differences in the information sets or some idiosyncratic biases in the expectations.

## 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. Since we expect institutions to be more informed and less affected by cultural biases, our data is biased against finding any effect of cultural variables.

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.<sup>17</sup> We exclude funds located in Luxembourg and Ireland when they are affiliated with companies located in other European countries.

This dataset include 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 D of Table 3.

## B Empirical Results

Table 6 investigates the effects of trust on portfolio allocations. 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  $i \neq j$ .<sup>18</sup> Panel A presents the basic regressions, while Panel B repeat them adding the interaction between trust and press coverage.

A traditional portfolio model would only include 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, this latter variable is absorbed by the country fixed effects.

To this benchmark we add the standard proxies for information: a dummy for common borders, the product of the percentage of people speaking the same language, and the logarithm

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<sup>17</sup>We thank Michele Gambera for providing us with the data.

<sup>18</sup>With this data we are unable to address the home bias portfolio puzzle.



of the distance between the two capitals.

None of these information variables is statistically significant (column 1). Only the trust of the investing country has a positive and statistically significant effect on the percentage of equity invested in a country. 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 a an 84 percent increase in the mean share.

In column 2 we instrument our measure of trust with the three cultural instruments (wars, commonality of religion, and genetic distance). The coefficient of trust doubles.<sup>19</sup>

In columns 3 and 4 we re-estimate the same regression respectively by OLS and IV after inserting two additional controls: press coverage and a dummy for similarity in the legal system. Press coverage has a positive and statistically significant effect on the portfolio share. 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 these additional variables, however, does not affect the previous results.

Panel B inserts the interaction between press coverage and trust to see whether it is true that the effect of trust is weaker when investors have access to better information. The coefficient of the interaction is consistently negative in all specifications although it is not precisely estimated. The direct effect of trust, however, retains statistical significance and its size is very similar (in fact, slightly higher) than in the previous case.

## VI Foreign direct investment

Finally, we study the effect of trust on foreign direct investments (FDI).

### A Data

Statistics on FDI transactions and positions are based on the OECD database developed by the Directorate for Financial, Fiscal and Enterprise Affairs. These statistics are compiled according to the concept used for balance and 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).

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<sup>19</sup>The F-test on the coefficients of the instruments in the first stage regression is equal to  $F(3,10)=35.19$ , ruling it out the problem of weak instruments.



FDI is a category of international investment made by a resident entity in one country. 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 has at least 10% of the shares or voting power. As for trade, we restrict our attention to countries members of the European Union, where the same rules for FDI apply. Summary statistics are reported in Table 3, Panel E.

## B Empirical Results

Table 7 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  $j$ .

Column 1 of Panel A reports the basic specification where in addition to mean trust we have country fixed effects, border, language, distance, and press coverage. The impact of trust is positive and statistically significant. One standard deviation increase in trust raises the level of FDI by 25 percent. This effect more than triples when we use instrumental variables (column 2).<sup>20</sup>

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 become very trust intensive.

The effect of trust is substantially unchanged when we add a dummy for a common legal system (column 3 and 4).

Panel B of Table 7 re-estimate the same regressions after inserting an interaction between information and trust. As for the case of trade, the direct effect of trust is positive and statistically significant, while the interaction between trust and press coverage is negative and statistically significant, suggesting that the effect of trust fades away when the information about a country increases.

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<sup>20</sup>The F-test on the coefficients of the instruments in the first stage regression is equal to  $F(3,13)=12.08$ .



## VII Conclusions

In this paper we show that culture plays a role in the formation of trust, beyond what objective considerations would justify. 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.

We also document that these differences in trust affect the level of economic exchange between two countries: trade, portfolio investments and foreign direct investments. This effect fades as more information about the country to be trusted becomes available in the trusting country. This is consistent with our conjecture that culture plays a role in shaping priors in the absence of data.

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 trade and hence the welfare implications of our results. If we assume that the effect estimated using within country variations apply also between countries, we have that the level of trustworthiness makes Switzerland trade 40 percent 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.



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## 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, in complementary fashion. They also probed the goals given top priority for one's own nation. These concerns have remained a central part of the European Community's research efforts – which were carried forward in the summer of 1971 with another six-nation survey that gave special attention to agricultural problems. These themes were of central interest again in a survey of the publics of the European Community countries – then nine in number – carried out in September 1973. After 1973, the surveys 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 of the European Community public opinion surveys. 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, the United Kingdom, Italy, the Netherlands, Belgium, Denmark, Ireland, Luxembourg. These Eurobarometer 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 of the Eurobarometer has explored a variety of special topics. Also, attitudes toward the organization and role of the European Parliament have been explored in each Eurobarometer beginning with Barometer 7 in the spring of 1977. The Eurobarometer surveys have included Greece since Autumn 1980, Portugal and Spain since Autumn 1985, the former German Democratic Republic since 1990, Norway (irregularly) since the fall of 1990, Finland since the spring of 1993, and Sweden and Austria since the fall of 1994. Table A1 shows the number of observations from each country in our dataset, the number of years the country was samples and the years in which 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, 1983) that is also called coancestry coefficient (not a very good 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 a 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 selectively 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 assume that there is no mutation, and that all gene frequency changes are by genetic drift alone. However, it does not assume that population sizes have remained constant and equal in all populations.



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 of citizens of a given country 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:

	Aus	Bel	UK	Den	NL	E Ger	Fin	Fra	Trust from:				Ire	Ita	Lux	Nor	Por	Spa	Swe	Average
									W. Ger	Gre										
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	2.13	2.65	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	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	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	3.57	3.04
NL	2.90	3.16	3.33	3.28	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	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	2.57	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	3.49	2.95	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	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	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	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	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	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	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	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	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	3.32	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	3.02	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	2.29	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	2.27	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	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	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	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	2.47	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	2.34	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	2.27	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	2.22	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	2.42	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	2.32	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	2.46	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	3.12	2.62



Panel B:

	Fra	Bel	NL	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	25
Swe	20	20	36	26	18	19	47	13	20	13	20	6	47	64	29	27	27
Aus	11	18	14	26	11	22	34	14	15	8	13	5	41	58	65	24	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	7	7	7	7
Chi	5	5	4	5	10	7	16	8	9	22	15	7	7	7	7	7	7
Cze	9	11	8	6	5	8	14	9	9	10	4	4	7	14	31	6	10
E Ger	12	15	8	28	9	6	14	11	7	15	4	7	7	7	7	7	11
Hun	10	12	9	10	6	8	14	9	9	9	4	5	7	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	7	12	26	6	11
Rom	10	12	8	4	8	8	10	9	7	12	3	7	7	7	7	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	7	11	29	6	8
Swi	25	34	35	40	26	32	38	22	31	34	22	19	7	49	56	43	34
Tur	5	5	5	6	2	7	10	6	5	3	8	4	7	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 destination characteristics**

Panel A shows how much of the trust of the average trust of a country's citizens versus the other countries 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 include a year fixed effect. The omitted country is Ireland. The standard errors reported in parenthesis 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.



Panel A:

	Mean trust	Median trust	Fraction of individuals trusting a lot
<b>Origin country (base=Ireland)</b>			
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)
<b>Destination country (base=Ireland)</b>			
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)
Germany (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)



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	Trust from			Gre	Spa	Por	E Ger	Nor	Fin	Swe	Aus
Fra																			
Bel	0.43																		
NL	0.17	0.35																	
W Ger	-0.01	-0.08	0.18																
Ita	-0.03	-0.08	-0.08	0.71															
Lux	-0.03	-0.26	-0.26	-0.10	0.42														
Den	0.11	0.28	0.15	0.00	-0.26	0.48													
Den	0.01	0.02	0.18	0.01	-0.15	-0.09	0.18												
Ire	0.02	0.02	-0.06	-0.11	-0.22	-0.14	0.07	0.55											
UK	-0.21	0.06	0.09	-0.07	-0.14	-0.20	0.20	-0.05	0.46										
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	0.04	-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	-0.12	-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	-0.23	-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	0.08				
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	0.04	0.50	0.20	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	-0.38	0.14	0.14				
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	0.35	0.09	0.12	0.08	0.08
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	-0.18	0.12	0.14	0.68	0.68
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			0.09	-0.14	-0.01	-0.15
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	-0.02	-0.04				
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	-0.17	-0.09	0.01	0.03	0.03	-0.30
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	0.08	0.26	0.18	-0.04	-0.09
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	-0.12	-0.48	0.26	0.19	-0.02	-0.02
Rom	0.03	0.03	0.08	-0.40	0.09	-0.09	-0.06	0.01	0.09	-0.06	0.09	0.00	-0.10	0.13			-0.07	-0.19	-0.31
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	-0.12	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	0.19	-0.29		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	-0.19	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		-0.48	0.11	0.19	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 is 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. Border is a dummy variable equal to one if two countries share at least one border (it is coded one, if countries are the same). Common language is the percentage of people that speak the same language in each pair of countries (Boisso and Ferrantino (1997)). Common origin of the law is a dummy variable that is equal to one if two countries share the same origin of law (common or civil law). Religious similarity measures the fraction of people with the same religious faith in the two countries. Genetic distance is the coancestry coefficient (Reynolds, 1983) calculated by Cavalli-Sforza et. al. (1996). Number of years at war have been calculated using the current nations borders as definition of the countries. Information 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 destination fixed effects, is shown in Panel B. Panel C show summary statistics for the trade dataset. Panel D shows summary statistics for the portfolios datasets. Panel E shows summary statistics for the foreign direct investment data. Detailed description of the variables is in the Appendix.

	Mean	Median	Std. Dev.	Min	Max	Observations
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
Log of 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
Common origin of the law	0.759	1.000	0.429	0.000	1.000	319
Religious similarity	0.307	0.256	0.289	0.000	1.000	319
Genetic distance ( $F_{ST}$ values x10,000)	86.086	61.000	145.995	0.000	1,244	267
Number of years countries have been at war (1000-1970)	13.386	1.000	28.618	0.000	198	319
Number of years countries have been at war (1815-1970)	1.442	0.000	3.202	0.000	20	319
Number of years countries have been at war (1000-1815)	11.944	0.000	28.069	0.000	197	319
Press coverage	0.043	0.020	0.068	0.000	0.440	262
Differences in gdp procapita (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	Common origin of the law	# of years countries at war (1000-1970)	Religious similarity	Genetic distance	Differences in per capita GDP
Average trust									
Common Language	0.52								
P-values	(0.00)								
Observations	319								
Log of distance	-0.58	-0.82							
P-values	(0.00)	(0.00)							
Observations	319	319							
Common Border	0.39	0.61	-0.65						
P-values	(0.00)	(0.00)	(0.00)						
Observations	319	319	319						
Common origin of the law	0.12	0.52	-0.24	0.30					
P-values	(0.00)	(0.00)	(0.00)	(0.00)					
Observations	319	319	319	319					
Number of years countries have been at war (1000-1970)	-0.07	-0.11	0.09	0.11	0.02				
Observations	(0.20)	(0.044)	(0.12)	(0.04)	(0.77)				
	319	319	319	319	319				
Religious similarity	0.47	0.46	-0.61	0.45	0.06	0.10			
P-values	(0.00)	(0.00)	(0.00)	(0.00)	(0.28)	(0.07)			
Observations	316	316	316	316	316	316			
Genetic distance	-0.50	-0.48	0.58	-0.42	-0.30	-0.07	-0.41		
P-values	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.25)	(0.00)		
Observations	267	267	267	267	267	267	265		
Differences in per capita GDP	-0.43	-0.28	0.32	-0.31	-0.08	-0.05	-0.28	0.30	
P-values	(0.00)	(0.00)	(0.00)	(0.00)	(0.17)	(0.42)	(0.00)	(0.00)	
Observations	319	319	319	319	319	319	316	267	
Press coverage	0.05	0.36	-0.37	0.46	0.37	0.30	0.16	-0.30	-0.16
P-values	(0.40)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)
Observations	262	262	262	262	262	262	260	218	262



Panel C: Statistics of Canada Trade data

	Mean	Median	Std. Dev.	Min	Max	Observations
Log of export to partner country	7.363287	7.567863	2.566298	0	15.73282	220428
Average trust from importer to exporter	2.733109	2.737242	0.280657	1.99384	3.569197	220428
Press coverage	0.044245	0.023036	0.052138	0	0.313644	220428
Log of distance	6.738852	6.959621	0.703892	5.156525	8.121116	220428
Common Border	0.268986	0	0.443434	0	1	220428
Common Language	0.080312	0	0.271776	0	1	220428
Common origin of the law	0.682291	1	0.465587	0	1	220428
Religious similarity	0.3325	0.330315	0.237958	0	0.82643	220428
Genetic distance ( $F_{ST}$ values x10000)	51.6095	38	39.6923	9	289	220428
Numbers of Years the two countries were at war 1000-1815	28.19641	9	40.59319	0	197	220428
Gdp of importing country	660.3096	501.749	604.8912	9.596	2384.115	220428
Gdp of exporting country	542.8481	296.081	568.1425	9.596	2384.115	220428

Panel D: Porfolio 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
Press coverage	0.037208	0.021825	0.038247	0	0.179437	107
Common Border	0.228814	0	0.42186	0	1	118
Common Language	0.039502	0	0.161499	0	1	118
Log of distance	6.786523	6.957813	0.621142	5.156525	7.861671	118
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
Genetic distance ( $F_{ST}$ values x10000)	40.5339	36	24.1745	9	99	118
Numbers of Years the two countries were at war 1000-1815	29.50848	14	39.77689	0	197	118
Common origin of the law	0.822034	1	0.384115	0	1	118
Distance in the characteristics of security laws (LLSV)	13.71983	14.295	2.323434	8.6	19.17	118

Panel E: Foreign Direct Investments (OECD)

	Mean	Median	Std. Dev.	Min	Max	Observations
Outward stock of FDI (log)	21.13226	21.58054	2.09734	12.41738	24.17526	309
Average trust from country to each partner	2.77174	2.774275	0.26325	2.103876	3.527406	309
Press coverage	0.048132	0.037093	0.051395	0	0.313644	309
Log of distance	6.774316	6.971646	0.694258	5.156525	8.121116	309
Common Border	0.245955	0	0.43135	0	1	309
Common Language	0.043698	0	0.18394	0	1	309
Common origin of the law	0.666667	1	0.472169	0	1	309
Religious similarity	0.35226	0.333012	0.219992	0.014418	0.82643	307
Genetic distance ( $F_{ST}$ values x10000)	50.4304	43	33.2395	9	223	309
Numbers of Years the two countries were at war 1000-1815	27.93528	9	40.25232	0	197	309



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 observation on year fixed effects, then we took the residual and collapsed the observations by year. The regressions include country of origin and country of destination. 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). Distance is the log distance between the capital of two countries. Border is a dummy variable equal to one if two countries share at least one border (it is coded one, if countries are the same). Common language is the percentage of people that speak the same language in each pair of countries (Boisso and Ferrantino (1997)). Common origin of the law is a dummy variable that is equal to one if two countries share the same origin of law (civil or common law). Religious similarity measures the fraction of people with the same religious faith in the two countries. Genetic distance is the coancestry coefficient (Reynolds, 1983) calculated by Cavalli-Sforza et. al. (1996). Number of years at war have been calculated using the current nations borders as definition of the countries and include the period between 1000 and 1970. Information measure the geographical coverage of some main European newspapers were obtained searching the Factiva search engine. For each pair of countries, A and B, it is the percentage of news in the selected newspaper of country A about country B. The standard errors reported in parenthesis are corrected for the potential clustering at the country of destination level. Panel A shows the results for the entire sample, while Panel B shows the results restricted to countries belonging to the European Union.



Panel A: Whole sample

	(1)	(2)	(3)	(4)	(5)
Common language	0.2411** (0.0916)	0.2085** (0.0932)	0.1900* (0.1033)	0.3613*** (0.0593)	0.3227*** (0.0661)
Log (distance)	-0.0874 (0.0557)	-0.0273 (0.0486)	-0.0268 (0.0487)	-0.0199 (0.0430)	-0.0148 (0.0367)
Common border	-0.0256 (0.0551)	0.0144 (0.0524)	0.0208 (0.0517)	0.0306 (0.0593)	0.0297 (0.0537)
Common origin of the law	-0.0978** (0.0409)	-0.1204** (0.0544)	-0.1205** (0.0546)	-0.2245*** (0.0736)	-0.2057** (0.0763)
Number of years at war 1000-1970		-0.0007 (0.0007)		-0.0007 (0.0005)	-0.0006 (0.0005)
Number of years at war 1000-1815			-0.0007 (0.0007)		
Number of years at war 1815-1970			-0.0035 (0.0051)		
Religious similarity		0.1671** (0.0732)	0.1641** (0.0755)	0.2208*** (0.0657)	0.1979** (0.0705)
Genetic distance ( $F_{ST}$ )		-13.0305*** (3.2644)	-13.0572*** (3.2474)	-12.7962** (4.5149)	-11.5463** (4.5902)
Dummy equal to one if country of origin is equal to country of destination	-0.2549 (0.3683)	-0.0579 (0.3207)	-0.0430 (0.3194)		
Press coverage				-0.5536 (0.5938)	-0.6570 (0.5459)
Differences in gdp procapita (percentage)					-0.0833* (0.0406)
Country of origin fixed effects	YES	YES	YES	YES	YES
Country of destination fixed effects	YES	YES	YES	YES	YES
Observations	319	265	265	216	216
R-squared	0.824	0.815	0.815	0.843	0.850



Panel B: European Sample

	(1)	(2)	(3)	(4)	(5)
Common language	0.1453 (0.1118)	0.1676 (0.1118)	0.1209 (0.1178)	0.3261*** (0.0700)	0.2923*** (0.0784)
Log (distance)	-0.1340** (0.0497)	-0.0865** (0.0379)	-0.0872** (0.0374)	-0.0793** (0.0333)	-0.0481* (0.0252)
Common border	-0.0327 (0.0521)	-0.0210 (0.0423)	-0.0033 (0.0393)	-0.0130 (0.0420)	0.0006 (0.0311)
Common origin of the law	-0.0766* (0.0401)	-0.0747 (0.0482)	-0.0746 (0.0483)	-0.2009*** (0.0670)	-0.1817** (0.0693)
Number of years at war 1000-1970		-0.0010 (0.0007)		-0.0011** (0.0005)	-0.0009* (0.0005)
Number of years at war 1000-1815			-0.0009 (0.0008)		
Number of years at war 1815-1970			-0.0077* (0.0041)		
Religious similarity		0.1883** (0.0863)	0.1785* (0.0891)	0.2281** (0.0806)	0.2107** (0.0846)
Genetic distance ( $F_{ST}$ )		-9.6330*** (3.1921)	-9.7343*** (3.1942)	-8.6155** (3.0332)	-7.8335** (3.4517)
Dummy equal to one if country of origin is equal to country of destination	-0.4926 (0.3358)	-0.4147 (0.2403)	-0.3930 (0.2355)		
Press coverage				-0.1401 (0.5352)	-0.3266 (0.4598)
Differences in gdp procapita (percentage)					-0.1153** (0.0512)
Country of origin fixed effects	YES	YES	YES	YES	YES
Country of destination fixed effects	YES	YES	YES	YES	YES
Observations	222	219	219	177	177
R-squared	0.801	0.815	0.817	0.848	0.858



Table 5:

## Effect of Trust on Trade

The dependent variable is the log of the export volume. Panel A and B show the results for the entire sample. In panel C the first 4 columns present the results for industries that produce goods traded in organized exchanges. The last four columns of Panel C includes industries producing differentiated goods. The classification of goods follows Rauch (1999). Distance is the log distance between the capital of two countries. Border is a dummy variable equal to one if two countries share at least one border (it is coded one, if countries are the same). Common language is the percentage of people that speak the same language in each pair of countries (Boisso and Ferrantino (1997)). Common origin of the law is a dummy variable that is equal to one if two countries share the same origin of law. The instruments include number of years the two countries were at war between 1000 and 1815, religious similarity, and genetic distance. Religious similarity measures the fraction of people with the same religious faith in the two countries. Genetic distance is the coancestry coefficient (Reynolds, 1983) calculated by Cavalli-Sforza et al.(1996). Information measure the geographical coverage of some main European newspapers were obtained searching the Factiva search engine. For each pair of countries, A and B, it is the percentage of news in the selected newspaper of country A about country B. 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 country level. The symbols \*\*\*, \*\*, \* mean that the coefficient is statistically different from zero respectively at the 1,5, and 10 percent level.

Panel A:

	OLS	IV	OLS	IV	OLS	IV
Mean trust of people in importing country to people in exporting country	0.3173*** (0.0912)	0.8703** (0.3922)	0.3322*** (0.0949)	1.0151** (0.4192)	0.3962*** (0.0772)	1.1335** (0.4727)
Press coverage			0.9797 (0.7952)	1.3588 (0.8852)	0.3023 (0.9443)	0.5085 (1.0020)
Log (distance)	-0.5960*** (0.0703)	-0.5770*** (0.0619)	-0.5817*** (0.0674)	-0.5531*** (0.0593)	-0.6124*** (0.0623)	-0.5908*** (0.0552)
Common border	0.7376*** (0.0899)	0.7123*** (0.0843)	0.7109*** (0.0991)	0.6695*** (0.0970)	0.6543*** (0.0974)	0.5945*** (0.0978)
Common language	0.8008*** (0.1804)	0.7567*** (0.1877)	0.7413*** (0.1918)	0.6642*** (0.2132)	0.5813*** (0.1232)	0.4541*** (0.1296)
Output exporter	-0.0002*** (0.0000)	-0.0001*** (0.0000)	-0.0002*** (0.0000)	-0.0001*** (0.0000)	-0.0002*** (0.0000)	-0.0001** (0.0001)
Output importer	-0.0000 (0.0001)	-0.0001 (0.0001)	-0.0000 (0.0001)	-0.0001 (0.0001)	-0.0000 (0.0001)	-0.0001 (0.0001)
Common origin of the law					0.3351* (0.1566)	0.4315** (0.1612)
Exporting country fixed effects	YES	YES	YES	YES	YES	YES
Importing country fixed effects	YES	YES	YES	YES	YES	YES
Years fixed effects	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	YES	YES	YES	YES
Observations	220428	220428	220428	220428	220428	220428
R-squared	0.582	0.581	0.582	0.580	0.583	0.581



Panel B:

	OLS	IV	OLS	IV
Mean trust of people in importing country to people in exporting country	0.4473*** (0.0903)	2.0168*** (0.4095)	0.4456*** (0.0892)	1.8249*** (0.4265)
Press coverage	8.8380 (4.9810)	43.5430** (19.2712)	4.1393 (4.6784)	36.8666** (15.2511)
Interaction effect between press coverage and trust	-2.8815 (1.7254)	-15.3885* (7.1844)	-1.3841 (1.6007)	-13.0930** (5.7179)
Log (distance)	-0.5716*** (0.0654)	-0.4823*** (0.0618)	-0.6047*** (0.0593)	-0.5115*** (0.0538)
Common border	0.7220*** (0.1041)	0.7051*** (0.1379)	0.6648*** (0.0951)	0.6757*** (0.1339)
Common language	0.7733*** (0.2028)	0.7916** (0.3135)	0.6114*** (0.1313)	0.7002*** (0.2050)
Output exporter	-0.0002*** (0.0000)	-0.0002** (0.0001)	-0.0002*** (0.0000)	-0.0002** (0.0001)
Output importer	0.0000 (0.0001)	-0.0000 (0.0001)	-0.0000 (0.0001)	-0.0000 (0.0001)
Common origin of the law			0.3043* (0.1636)	0.1693 (0.2392)
Exporting country fixed effects	YES	YES	YES	YES
Importing country fixed effects	YES	YES	YES	YES
Years fixed effects	YES	YES	YES	YES
Industry fixed effects	YES	YES	YES	YES
Observations	220428	220428	220428	220428
R-squared	0.582	0.573	0.583	0.576



Panel C:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	OLS	Organized exchange IV	OLS	IV	OLS	Differentiated product IV	OLS	IV
Mean trust imp.country to exp. country Information	0.2079 (0.1165)	0.4311 (0.3013)	0.2376* (0.1131)	0.5652* (0.2886)	0.3622** (0.1539)	1.1618** (0.5161)	0.4380*** (0.1343)	1.2834* (0.5980)
Log (distance)	-1.9631*** (0.6128)	-1.8292** (0.6302)	-2.2152** (0.7392)	-2.1003** (0.7899)	1.7003 (0.9752)	2.2085* (1.0371)	0.8363 (1.1473)	1.1251 (1.1854)
Common border	-0.6899*** (0.0815)	-0.6789*** (0.0857)	-0.7029*** (0.0902)	-0.6917*** (0.0898)	-0.5408*** (0.0838)	-0.4761*** (0.0786)	-0.5793*** (0.0773)	-0.5227*** (0.0714)
Common language	0.8744*** (0.1099)	0.8621*** (0.1060)	0.8469*** (0.1298)	0.8207*** (0.1248)	0.6684*** (0.1064)	0.6116*** (0.1044)	0.6025*** (0.0974)	0.5258*** (0.0980)
Output exporter	0.7808*** (0.1685)	0.7497*** (0.1761)	0.7198*** (0.1467)	0.6559*** (0.1183)	0.7574** (0.2468)	0.6905** (0.2794)	0.5528*** (0.1587)	0.4280** (0.1880)
Output importer	0.0002 (0.0001)	0.0002 (0.0001)	0.0002 (0.0001)	0.0002 (0.0002)	-0.0002*** (0.0000)	-0.0002*** (0.0000)	-0.0002*** (0.0000)	-0.0002*** (0.0000)
Same origin of law	-0.0001** (0.0000)	-0.0001** (0.0001)	-0.0001** (0.0000)	-0.0002** (0.0001)	0.0001 (0.0001)	-0.0000 (0.0001)	0.0001 (0.0001)	-0.0000 (0.0001)
			0.1408 (0.1783)	0.1844 (0.1542)			0.4160** (0.1623)	0.5299** (0.1808)
Exp. country fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Imp. country fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Years F.E.	YES	YES	YES	YES	YES	YES	YES	YES
Industry F.E.	YES	YES	YES	YES	YES	YES	YES	YES
Observations	20,308	20,232	20,308	20,232	113,490	113,085	113,490	113,085
R-squared	0.416	0.417	0.416	0.417	0.647	0.644	0.648	0.645



Table 6:

## 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- foreign liabilities. 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 one if two countries share at least one border (it is coded one, if countries are the same). Common language is the percentage of people that speak the same language in each pair of countries (Boisso and Ferrantino (1997)). Common origin of the law is a dummy variable that is equal to one if two countries share the same origin of law. Proximity of security laws is a synthetic measure for each pair of countries  $i$  and  $j$  the sum of the proximity of each security law characteristic based on La Porta et al. (2003). The instruments include number of years the two countries were at war between 1000 and 1815, religious similarity, and genetic distance. Religious similarity measures the fraction of people with the same religious faith in the two countries. Genetic distance is the coancestry coefficient (Reynolds, 1983) calculated by Cavalli-Sforza et al.(1996). Information measure the geographical coverage of some main European newspapers were obtained searching the Factiva search engine. For each pair of countries, A and B, it is the percentage of news in the selected newspaper of country A about country B. 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 country level. The symbols \*\*\*, \*\*, \* mean that the coefficient is statistically different from zero respectively at the 1, 5, and 10 percent level.

Panel A:				
	OLS	IV	OLS	IV
Mean trust toward people in destination country	0.1169** (0.0383)	0.2373** (0.1047)	0.1422** (0.0480)	0.2580** (0.1120)
Inverse Cov. of stock market returns of country of origin and destination	0.0130 (0.0278)	0.0288 (0.0318)	0.0025 (0.0373)	0.0193 (0.0461)
Press coverage			0.6717** (0.2898)	0.7384** (0.3162)
Common border	-0.0028 (0.0315)	-0.0058 (0.0317)	-0.0164 (0.0342)	-0.0210 (0.0326)
Common language	0.0037 (0.0189)	-0.0124 (0.0229)	-0.0242 (0.0219)	-0.0415 (0.0286)
Log (distance)	-0.0485 (0.0372)	-0.0431 (0.0343)	-0.0320 (0.0344)	-0.0249 (0.0320)
Common origin of the law			0.0046 (0.0186)	-0.0335 (0.0313)
Investing country fixed effects	YES	YES	YES	YES
Destination country fixed effects	YES	YES	YES	YES
Observations	118	118	107	107
R-squared	0.374	0.325	0.418	0.376



Panel B:

	OLS	IV	OLS	IV
Mean trust toward	0.1481**	0.2913**	0.1481**	0.2913**
people in destination country	(0.0577)	(0.1052)	(0.0577)	(0.1052)
Inverse Cov. of stock market returns	0.0045	0.0201	0.0045	0.0201
of country of origin and destination	(0.0354)	(0.0417)	(0.0354)	(0.0417)
Press coverage	1.3240	2.0422	1.3240	2.0422
	(1.4648)	(2.4778)	(1.4648)	(2.4778)
Interaction effect between press	-0.2397	-0.4650	-0.2397	-0.4650
coverage and trust	(0.4620)	(0.8828)	(0.4620)	(0.8828)
Common border	-0.0171	-0.0191	-0.0171	-0.0191
	(0.0357)	(0.0346)	(0.0357)	(0.0346)
Common language	-0.0131	-0.0492*	-0.0131	-0.0492*
	(0.0167)	(0.0265)	(0.0167)	(0.0265)
Log (distance)	-0.0323	-0.0213	-0.0323	-0.0213
	(0.0353)	(0.0347)	(0.0353)	(0.0347)
Common origin of the law			0.0068	-0.0369
			(0.0197)	(0.0274)
Investing country fixed effects	YES	YES	YES	YES
Destination country fixed effects	YES	YES	YES	YES
Observations	107	107	107	107
R-squared	0.415	0.360	0.415	0.360



Table 7:

## 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 one if two countries share at least one border (it is coded one, if countries are the same). Common language is the percentage of people that speak the same language in each pair of countries (Boisso and Ferrantino (1997)). Common origin of the law is a dummy variable that is equal to one if two countries share the same origin of law. The instruments include number of years the two countries were at war between 1000 and 1815, religious similarity, and genetic distance. Religious similarity measures the fraction of people with the same religious faith in the two countries. Genetic distance is the coancestry coefficient (Reynolds, 1983) calculated by Cavalli-Sforza et al.(1996). Information measure the geographical coverage of some main European newspapers were obtained searching the Factiva search engine. For each pair of countries, A and B, it is the percentage of news in the selected newspaper of country A about country B. 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 country level. The symbols \*\*\*, \*\*, \* mean that the coefficient is statistically different from zero respectively at the 1,5, and 10 percent level.

Panel A:				
	OLS	IV	OLS	IV
Mean trust toward	0.8772*	2.9023**	0.8544*	2.9410**
people in destination country	(0.4617)	(1.2361)	(0.4621)	(1.2658)
Press coverage	2.2710	4.7994	2.6385	4.8174
	(2.6005)	(3.2326)	(2.6130)	(3.4120)
Log (distance)	-0.6279*	-0.3921	-0.6221*	-0.3905
	(0.3390)	(0.4063)	(0.3377)	(0.4113)
Common border	0.4887	0.3316	0.4899	0.3289
	(0.2763)	(0.2646)	(0.2832)	(0.2719)
Common language	0.3698	-0.0300	0.6892	-0.0583
	(0.6316)	(0.7420)	(0.4798)	(0.6094)
Common origin of the law			-0.2570	0.0164
			(0.4448)	(0.5777)
Exporting country fixed effects	YES	YES	YES	YES
Importing country fixed effects	YES	YES	YES	YES
Years fixed effects	YES	YES	YES	YES
Observations	309	307	309	307
R-squared	0.809	0.790	0.809	0.789

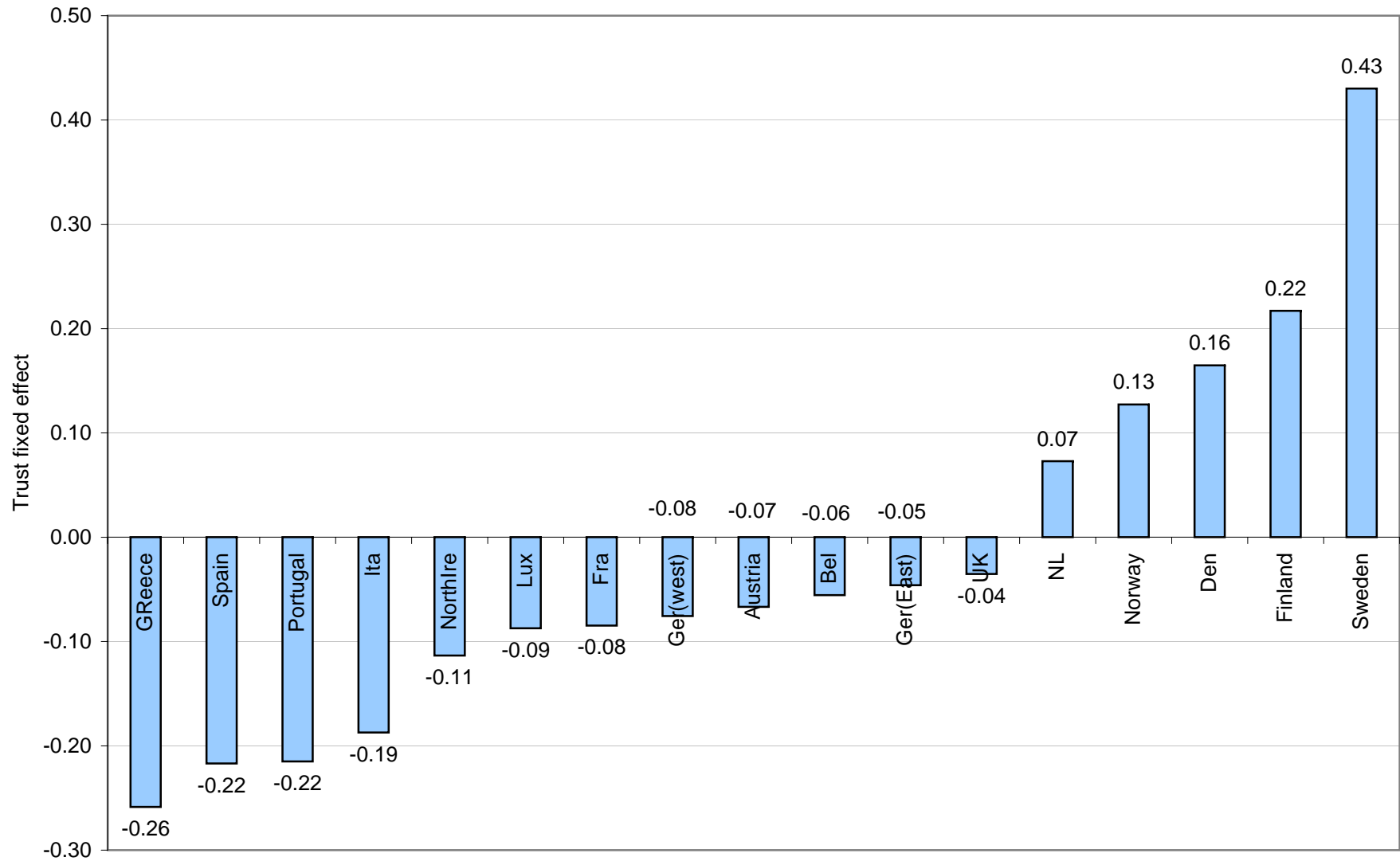


Panel B:

	OLS	IV	OLS	IV
Mean trust toward	1.7562**	11.3403***	1.7504**	11.2592**
people in destination country	(0.6729)	(3.4299)	(0.6764)	(3.7322)
Press coverage	46.8757***	285.1498**	48.7566***	287.9184**
	(15.1741)	(99.2172)	(13.7117)	(109.4383)
Interaction effect between press	-15.6924***	-97.4025**	-16.1692***	-98.2600**
coverage and trust	(5.1214)	(34.3348)	(4.7189)	(37.5976)
Log (distance)	-0.4878	0.7167	-0.4752	0.7237
	(0.3491)	(0.6796)	(0.3462)	(0.6857)
Common border	0.6044**	0.8302*	0.6096**	0.8455*
	(0.2425)	(0.4226)	(0.2511)	(0.4239)
Common language	0.2248	-1.5442	0.6769	-1.1409
	(0.5581)	(1.1440)	(0.3985)	(0.7498)
Common origin of the law			-0.3674	-0.3141
			(0.4365)	(0.7018)
Exporting country fixed effects	YES	YES	YES	YES
Importing country fixed effects	YES	YES	YES	YES
Years fixed effects	YES	YES	YES	YES
Observations	309	307	309	307
R-squared	0.815	0.538	0.815	0.542



**Figure 1:**  
**Fixed effects of countries of origin relative to Ireland**





**Figure 2:**  
**Fixed effect of country of destination relative to Ireland**

