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. This effect persists after controlling for the objective characteristics of that country 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.

JEL:

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

Duke of Wellington

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 (Greif, 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 al. (2002) and Guiso, Sapienza, and Zingales (GSZ)(2004)). But how is that trust formed?

In this paper, we argue that culture plays a role in the formation of trust, beyond what objective consideration would justify. We then, show how these cultural biases impact international trade and investments.

To start looking into the determinants of trust, let's first 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.[1] The average results, which are summarized in the table below, highlight three facts.

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

First, there seems to be some common views, which in a rational expectation world coincide with the objective characteristics of the country being trusted. Everybody ranks German managers relatively high, while Spanish ones relatively low. Second, there seems to be a home bias in

[1] 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.

expectations: every manager trusts fellow-countrymen relatively more (first or second). Spanish managers, for instance, rank themselves second in trustworthiness, while they are ranked forth or fifth (last) by every other group. Third, after removing the objective component and the home bias component, we observe some peculiar pairs. French managers, for instance, rate British managers much lower than any other ones (even lower than the Spanish). This seems inconsistent with the ranking chosen by every other group.

These facts are not peculiar of this dataset. As we will show in a broader sample, they are exactly replicated in an independent and broader survey. More importantly, the idiosyncratic level of mistrust of the French toward the British seems to be reciprocated (as the duke of Wellington's opening quote seems to suggest). On a relative basis, the British trust the French less.[2] What can explain this behavior?

We identify five main factors behind the decision to trust someone. First, trust arises from the knowledge that cheaters will be severely punished. We trust colleagues in our own department more than random faculty members in the United States because we repeatedly interact with our colleagues and hence we have multiple chances of punishing them if they breach our trust. And we trust a random person from Singapore more than a random person from Argentina, because legal breaches are punished much more severely in the first country than in the second.

The second key factor behind the decision to trust is the set of internalized norms the person object of our trust has. French philosopher Voltaire, not known for his religiosity, preferred to have religious servants because he trusted them more not to steal from him. And indeed religious people are less likely to break the law and cheat (Guiso et al. (2003)). Both these factors are objective, i.e., based on the specific characteristics of the country to be trusted.

There are, however, subjective elements in the trusting decision. The average Swede may be a more trusting person in general than the average Italian. Or (it is impossible to disentangle) on average he might inflate his responses more. This effect is specific of the country originating trust.

Finally, there are characteristics of the match. The average Canadian has more information about Americans than the average Japanese and this better information can significantly affect

[2] In this table the rank ordering does not allow us to see it, but in general it is true that there is some reciprocity, see Table 2b.

(upward or downward) her degree of trust.

Last but not least, trust can also be affected by cultural specific stereotypes. A Korean, raised with the memories of the Japanese occupation, may trust a random Japanese less than a German would, even if they both have the same information set.

In general, it is difficult to distinguish between these various components of trust. Fortunately, we are able to do so by using a cross-national survey collected by Eurobarometer, which has data on the degree of trust that European citizens have towards citizens of other countries (both in Europe and outside). Hence, we can control for country of origin fixed effect, which reflects systematic biases, and for country of destination fixed effects, which represent the objective characteristics of the citizens of that country, including the strength and effectiveness of legal punishment they are subject to.

Then, we try to explain what is left after inserting these controls (40% of the variation in trust) on the basis of information and stereotyping. As measures of information we use the geographical distance between the two countries, their proximity, and the commonality between the two languages. 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. However, these variables do not seem able to explain why some countries trust others more. If anything better newspapers' coverage leads to less trust.

We find that citizens from a country trust more citizens from another when the two countries share the same type of legal system (same family of origin). This effect can be due to the greater ease with whom a citizen of a country can access legal remedies when the two countries share the same type of legal system or it can be due to some form of cultural bias, where countries trust citizens from other countries that are more similar to them (and countries that share the same family of origin of the legal system are more similar).

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 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). Genetic distance is correlated with some somatic differences and measures 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 percent of the citizens share the same religion (e.g. Italy and Spain) raises trust by 4.5 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. Peoples 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 a result, a negative image of Austrians. While this variable has the expected sign, it is statistically significant only at the 15% level.

Finally, relative trust is negatively related to a direct measure of information available (newspaper coverage), suggesting that i) it is not true that on average people trust more whom they know better; ii) on average people have a positive bias in trust, which is corrected as they acquire more information. By contrast, relative trust is highly associated with perceived "pleasantness" of people from that country, as self reported in the survey. This reinforces the view that trust has a cultural component. It might raise the doubt, however, that what Eurobarometer measures as trust is indeed just "pleasantness" and, as such, irrelevant to major economic decisions. For this reason, we move to assess the economic impact this measure of trust has on economic exchange between two countries.

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 12 percent. Consistent with our hypothesis that the cultural aspect of trust works through peoples priors, we find that the effect of trust is reduced if a country is more exposed to the news of another country.

The evidence on international portfolio allocation suggests that there is an "home bias" in portfolio allocation (see for example, Dahlquist et al. (2004)). Consistent with this evidence, we find that portfolio investments are tilted toward countries whose citizens are considered

relatively more trustworthy after controlling for country of origin and country of destination fixed effects. We find similar 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 historical 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)), 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 (2003), Cohen (2003), De Groot et al. (2003) and Vlachos (2004). Morse and Shive (2003) relate portfolio choices to the degree of patriotism of a country. Cohen (2003) 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 cultural 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 interna-

tional exchange. While their findings can be explained in term of similar cultures breed 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.

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 modeled as a prior affecting people's decisions. To see how trust can have a first order effect through this channel we present an extremely simple model, based on a variation of Anderlini and Felli (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 π to this set of events. For simplicity, we ignore the similar problem faced by B. Then, the ex ante payoff of A is

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

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

Proposition 1. Regardless how big the trade opportunity V^h is and regardless how small the cost of investigation c is, if the level of trust $[1-\pi]$ is sufficiently low, the trade opportunity will never be investigated and hence 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.[3] 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, is how A will form an expectation about this probability π. Note that the event "being taken advantage of" is not an easy one to document. If B takes advantage of her superior knowledge of her country legal code to "trick" A and appropriate all the surplus, this event will not appear in the official statistics as a crime, not even as a contractual violation. Hence, A will be forced to use a generic prior on the trustworthiness of citizens of country B, which he is going to update

[3]We thank Luca Anderlini for suggesting this example.

with his personal experience. We assume that people use their (possibly updated) priors in answering the Eurobarometer question on trust.

The question is then -how do people form their priors? In Guiso et al. (2004) we find that peoples 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 logically to assume that education plays a big role in forming these expectations. Furthermore, in Guiso et al. (2003) we find that religious believes *of the trusting person* affect how much a person trusts another. Hence, religion should definitely play a role. More generally, the literature on homophilia documents that individuals are more likely to prefer interactions with similar anthropometric and cultural characteristics.

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, 2004). 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.

While in our model the process of updating the beliefs is perfectly rational, in the common use of the word rational, the Bayesian paradigm used in economics does not deal with the process of initial 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 partner 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).

In addition, each survey collects basic information on the demographic characteristics of the interviewed (year and country of birth, sex, marital status, level of education, income, family size, occupation, city size where respondent lives etc.) which makes it possible to filter trust data in order to control for differences in sample composition across countries.

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

The first three rows of Table 3- Panel A reports sample statistics for trust.

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.[4] 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 the product of the percentage of people who speak the same language in each pair of countries.[5]

To measure the level of information citizens of one country have of citizens of other countries we also collected the number of times a country name appears in the headlines of a major newspaper in another country.[6] 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 an indicator based on La Porta et al (1998) classification of legal origin. Our measure is a dummy variable that is equal to one if two countries share the same origin of 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.[7] 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

[4]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).

[5]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 Havemans website: http://www.macalester.edu/research/economics/PAGE/HAVEMAN/Trade.Resources/TradeData.html. The results remain substantially unchanged.

[6]A similar measure is used as a reality check in Rey and Portes (2002).

[7]See Cornell and Welch (1996)

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, when 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 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).[8].

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 = 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

[8]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

the genetic distance between indigenous population as developed by Cavalli-Sforza et. al.(1996).[9] 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. At 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)). The sociological and psychological literature on homophily has shown that contacts between similar people occurs at a higher rate than among dissimilar people, and that often homophily is induced by personal preferences. In other words, individuals prefer to interact with other similar individuals. This research suggests that genetic distance translates into network distance, the number of relationships through which a piece of information must travel to connect two individuals (McPherson, et al. 2001).

Summary statistics on these variables are reported in Table 3, Panel A.

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.[10] 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). The first four columns report the results for the entire sample, including the observation when the country of origin is the same as the country of destination.[11]. The last two columns report results

[9] For a more detailed description of this measure see the Appendix.

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

[11] For the case in which the country of origin is equal to the country of destination we have set geographical distance equal to 1, the adjacency dummy equal to 1, language equal to 10,000, and genetic distance equal to zero

excluding the observations where the country of origin is equal to the country of destination.

In principle, it is not obvious what the effects of the variables proxing for information 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 common language nor common border affect the trust of a country towards another. Distance instead has a negative and statistically significant effect: increasing (log) distance between two countries by one standard deviation lowers relative bilateral trust by 5.2 percent of its sample mean.

Commonality of legal origin has a positive effect on trust: citizens of countries that share the same legal origin tend to trust each other more. The effect is small, but economically significant: other things being equal moving from a different legal origin to a common one increases the amount of relative trust by 3.2 percent of its sample mean. This result is consistent with legal origin capturing a shared cultural background, but it is also consistent with the idea that ceteris paribus one can trust more a citizen of a country that has the same legal origin of her own country because it is easier to obtain legal justice in case of deviation from what is written in a contract.

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 4.5 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 6 percent of the sample mean. The number of years two countries have been at war has a negative effect on match-specific trust, though it is significant only at the 15 percent level.

In column 3 we introduce common origin of the language among the regressors. The results do not change substantially. One thing is worth noticing. Both the coefficients of genetic

distance and common law decrease somewhat. Common origin of the language is correlated with genetic distance (Cavalli-Sforza et. al. (1996), Cavalli-Sforza (2000)), but also is independently correlated with common origin of law.

The last two columns re-estimate the same regressions dropping observations where the country of origin and country of destination coincide, in so doing eliminating the effect of home bias in trust. Results are stronger than those reported in the previous columns, implying that they are not driven by obvious larger values of religious and genetic commonality within the home country and the larger values of trust towards the fellow citizens.

In Table 5 we show the result of regressing the average level of trust of citizens of country i to citizens of country j on the average level of knowledge that citizens of country i have of citizens of country j measured by newspaper coverage. In the regression we include both country of origin and destination fixed effects. The partial correlation coefficient (column I) is positive, but statistically insignificant. When we insert all the other control variables, the coefficient becomes negative and statistically significant at the 10% level. 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, 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.

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 (maximus 3 answers possible)?". We coded *1* if country j was mentioned by citizen of country i and we use the percentage of times in which country j was mentioned by all the citizens of country i, as a measure of how much citizens of country i think citizens of country j are pleasant people.[12]

Interestingly, when we introduce the percentage of citizens of country i that have mentioned

[12]Table 3A reports sample statistics for these variable.

citizens of country j as the most pleasant citizens in European Union, we find that the coefficient of perceived pleasantness is positive and significant. A one-standard deviation increase in the perceived pleasantness increases trust by 15 percent.

Unfortunately, the question about pleasantness has been asked only to citizens of five countries, so our observations in this regression shrink to 55. Thus, when we control for perceived pleasantness, all the other variables become insignificant. Since in this limited sample all the other variables are insignificant even if we do not insert perceived pleasantness, we cannot determine whether the effect of these other variables work only through pleasantness or also work independently. But these findings do suggest that relative pleasantness plays a big role in explaining relative trust among countries.

IV The Effect of Trust on Trade

Now that we have 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 OECD, based on customs records.[13]. This database provides time-series of trade value, disaggregated according to trading partner, for the period 1970-2000. 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).

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. For the countries that entered the European Union after 1970 we include observations only after the admission date (for example, UK is included in the sample only for the years after 1974, and Greece is included in the sample only for the years after 1981).[14]

[13] See Golub, et al. (2003)

[14] One possible concern is that trade agreements (i.e. in this case joining the EU) take a long time to deliver

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

B Empirical Results

Table 6- 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 I presents the standard gravity regression with the addition of our measure trust of the importing country toward the exporting one and of fixed effects for both the importing and the exporting countries (Evans (2003)).[15]

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, and the remoteness of two trading partners with respect to the rest of the world positively affect it.

Unlike the standard gravity equation, the GDP of the importing country and the GDP of the exporting country are not statistically 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), even after controlling for all these variables our measure of trust has a positive and statistically significant effect on trade. At sample means, increasing the trust of the importer by one standard deviation raises the share of exports over GDP by 12 percent.

There are two 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). To address these concerns we need some instruments.

As instruments we will 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

their effects. For this reason, we test the robustness of our results by including observations of EU countries only after 10 years they joined the EU. All our results are robust to restricting the sample in this way.

[15] Anderson and van Wincoop (2003) argue against the insertion of "remoteness" into the gravity equation. Our results are unchanged if we drop it.

effect on trade.

Among these instruments, the most problematic one is the history of wars. It is not only possible, but also very plausible that wars disrupt trade. 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 in the coancestry coefficient reflect Neolithic migration into the continent (Menozzi et al., (1978) and Ammerman and Cavalli-Sforza (1985)).[16] 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 that the Turks arrived in Austria at the end of the eighteenth century, the distribution of genes in Europe show 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 Table6- Panel A shows the IV estimates, when all these three instruments are used.[17] Not only the effect of trust remains significant, but its magnitude more than double.

[16]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.

[17]When we drop the history of wars the results are unchanged.

This result suggests two possibilities. One is 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. Alternatively, culture can affect trade through several channels and trust is just one of those. When we instrument trust with other cultural determinants, we capture the full effect of culture, which is bigger than its effect via trust. We are unable to distinguish between these two possibilities. Either way, however, we have identified an important effect of culture on trade.

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 (2002), information is positively associated with trade, although the direction of causality is questionable. After controlling for the availability of information, trust remains an important determinant of trade patterns.

Finally in column V and VI we introduce a measure for cultural similarity: an indicator equal to one if the legal system of two countries belong to the same family (see La Porta et al. (1998)). Common origin of law has a positive and significant effect on trade. This result can be interpreted in various way. It can be seen as a evidence that similar institutions foster more trade because they provide more guarantee to the parties involved (De Groot et al, (2003) and Vachlos (2004)). Or it can be interpreted as evidence that similar culture, of which a similar legal system is a proxy for, foster more trade. Regardless of the interpretation, the impact of our trust measure remains unchanged.

In Table 6- 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, both in the OLS estimates and in the IV ones, albeit the effect is not statistically significant in the IV regression.

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 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.[18] 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 C of Table 3.

B Empirical Results

Table 7 investigates the effects of trust on portfolio allocations. The dependent variable is the percentage of the total equity portfolio of mutual funds located in country i that is invested in equity of the country j.

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 our proxies for information: the newspapers' coverage, a dummy for common borders, the product of the percentage of people talking the same language, and

[18] We thank Michele Gambera for providing us with the data.

the logarithm of the distance between the two capitals. Of all these variables, only distance is statistically significant (column I).

In column II we instrument our measure of trust with the three cultural instruments (wars, commonality of religion and genetic distance). The coefficient of trust almost quadruple and becomes statistically significant. One standard deviation increase in trust raises the amount invested in a country by 7 percentage point, i.e. it almost doubles the average amount invested.

In column III and IV we re-estimate the same regression respectively by OLS and IV after inserting a dummy for similarity in the legal system. In the OLS estimate the common legal origin variable has a positive and statistically significant effect on the amount invested in a country, but the significance disappear when we instrument trust. It is clear that both common legal origin and trust are capturing a similar phenomenon and we do not have sufficient data to separate the two.

There is, however, another way to determine whether the effect of the common legal origin variable is due to the better protection (or sense of protection) a common legal system provides to investors or to the fact that countries with a similar legal system tend to share also a common history and this common history creates cultural biases that favor exchange. In the case of portfolio investments we know which should be the types of laws that matter the most. La Porta et al. (2003) compile a list of the relevant aspects of security laws. If common legal origin works because investors coming from a country that shares the same legal system feel better protected, it must work even better when we focus our attention to the the relevant aspect of the law. For this reason we compile a similarity index, similar to the one is Vachlos (2003), where we assign a value of one each aspect of security laws two countries share, and zero otherwise.

In column IV and V we re-estimate the basic regression (respectively by OLS and IV) after inserting this index of similarity of security laws rather than of similarity of legal origin. In the OLS regression the coefficient of this index is positive, while in the IV one is negative; in both cases, however, it is insignificant.

The IV estimates, however, show a large (and statistically significant) effect of trust, comparable to the one found in column II. So the data seem to suggest that the importance of common legal origin mainly comes from some cultural bias that fosters higher trade and investments between countries that share some common history.

Panel B interacts information with trust to see whether it is true that the effect of trust is

weaker when investors have access to better information. The results here are more ambiguous. All the OLS estimates suggest that the effect of trust is indeed diminishing with the availability of information. This is not true in the IV estimates. The coefficient for the interaction variable is positive (rather than negative) albeit not statistically significant. The problem here might be due to the fact that we are instrumenting both the level of trust and the interaction of trust and information with the same set of variables.

VI Foreign direct investment

In this section, 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.

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 10% of the shares or voting power.[19] Because trade agreements are important for foreign direct investmant, our sample includes only countries after they joined the European Union.[20] Summary statistics are reported in Table 3, Panel D.

B Empirical Results

Table 8 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.

Column I of Panel A reports the basic specification with country fixed effects, border, language, and distance and mean trust. The impact of trust is positive, but not statistically

[19] See Golub et al.

[20] As for our trade regression, we found that all our results are robust to including countries only 10 years after they joined the European Union.

significant. This effect almost triples when we use instrumental variables (column II). Economically, a one standard deviation increase in trust toward a country increases the stock of FDI in that country by 2.5 percent. This effect, however, remains statistically insignificant at conventional levels.

In column III and IV we add our proxy for information to our basic regression. The coefficient of trust becomes slightly bigger and in the IV regression is also statistically significant.

When we insert a dummy for a common legal origin (column V and VI), however, the effect of trust is reduced and becomes insignificant again.

Panel B of Table 8 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 trade is negative and statistically significant, suggesting that the effect of trust fades away when the information about a country increases.

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.

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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 of citizens of a given country toward the citizens of all the other countries; the last column shows the trust that citizens of a given country receive on average from all the other countries. It gives a summary measure of how trustworthy are the citizens of the country. 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 citizens of other countries 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 receive a lot of trust from citizens of all the other countries. It gives a summary measure of how trustworthy are the citizens of the country.

Panel A:

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

Panel B:

	Trust from:																
	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
Swe	20	20	36	26	18	19	47	13	20	13	20	6	.	47	64	29	27
Aus	11	18	14	26	11	22	34	14	15	8	13	5		41	58	65	24
US	12	10	4	7	9	6	6	7	8	38	28	13	2	5	3	15	11
Bul	9	11	6	4	5	8	10	9	7	8	2	7	.	.	.	.	7
Chi	5	5	4	5	10	7	16	8	9	22	15	7	.	.	.	.	9
Cze	9	11	8	6	5	8	14	9	9	10	4	4	.	14	31	6	10
E Ger	12	15	8	28	9	6	14	11	7	15	4	7	.	.	.	.	11
Hun	10	12	9	10	6	8	14	9	9	9	4	5	.	21	31	10	11
Jap	10	13	14	17	26	12	23	15	12	23	16	9	34	29	42	14	19
Pol	12	14	12	4	8	9	16	12	15	10	5	6	.	12	26	6	11
Rom	10	12	8	4	8	8	10	9	7	12	3	7	.	.	.	.	8
Rus	5	5	5	5	8	5	9	7	6	18	11	5	12	5	21	6	8
Slo	7	7	4	3	2	6	12	7	8	7	6	3	.	11	29	6	8
Swi	25	34	35	40	26	32	38	22	31	34	22	19	.	49	56	43	34
Tur	5	5	5	6	2	7	10	6	5	3	8	4	.	8	22	4	6
Average	14	16	16	16	11	14	23	13	14	17	14	10	27	26	40	20	

Table 2:

Bilateral trust and country of origin and destination characteristics

Panel A shows how much of the average trust toward citizens of other countries is explained by observed and unobserved characteristics of the countries receiving and giving trust. 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). "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 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. Each number in the matrix measures the relative average trust from citizens of a given country toward citizens of other countries, once the country of origin and destination and time effects have been absorbed.

Panel A:

	Mean trust	Median trust	Fraction of individuals trusting a lot
Origin country (base=Ireland)			
Fra	-0.0847*	-0.1211**	-0.0041
	(0.0496)	(0.0438)	(0.0225)
Bel	-0.0555	-0.1262***	0.0274
	(0.0488)	(0.0449)	(0.0259)
NL	0.0729	-0.0814	0.0173
	(0.0494)	(0.0512)	(0.0254)
Ger(west)	-0.0756	-0.1504*	0.0272
	(0.0649)	(0.0780)	(0.0295)
Ita	-0.1872***	-0.2392***	-0.0281
	(0.0582)	(0.0749)	(0.0220)
Lux	-0.0873	-0.1627**	0.0071
	(0.0553)	(0.0717)	(0.0297)
Den	0.1647***	0.0119	0.0827***
	(0.0452)	(0.0534)	(0.0238)
UK	-0.0353	-0.0873	0.0059
	(0.0603)	(0.0525)	(0.0226)
NorthIre	-0.1134***	-0.1071**	-0.0331**
	(0.0352)	(0.0398)	(0.0129)
GReece	-0.2586***	-0.2878***	0.0568*
	(0.0844)	(0.0918)	(0.0326)
Spain	-0.2169***	-0.2843***	0.0175
	(0.0702)	(0.0744)	(0.0300)
Portugal	-0.2150***	-0.2426***	-0.0329
	(0.0644)	(0.0577)	(0.0297)
Ger(East)	-0.0460	-0.2109**	0.0491
	(0.0767)	(0.0950)	(0.0297)
Norway	0.1272**	0.0317	0.0884***
	(0.0612)	(0.0982)	(0.0306)
Finland	0.2170***	0.1393**	0.1320***
	(0.0562)	(0.0668)	(0.0331)
Sweden	0.4301***	0.3393***	0.2678***
	(0.0439)	(0.0981)	(0.0293)
Austria	-0.0668	-0.2207**	0.0651**
	(0.0654)	(0.1050)	(0.0301)
Destination country (base=Ireland)			
Fra	0.0540***	-0.0442***	0.0095***
	(0.0046)	(0.0072)	(0.0009)
Bel	0.2009***	0.0591***	0.0292***
	(0.0000)	(0.0000)	(0.0000)
NL	0.2543***	0.0161***	0.0630***
	(0.0000)	(0.0000)	(0.0000)
Ger(west)	0.0802***	0.0534***	0.0486***
	(0.0045)	(0.0071)	(0.0009)
Ita	-0.2168***	-0.2619***	-0.0752***
	(0.0047)	(0.0073)	(0.0009)
Lux	0.2855***	0.1022***	0.0703***
	(0.0000)	(0.0000)	(0.0000)
Den	0.2574***	0.0806***	0.0612***
	(0.0000)	(0.0000)	(0.0000)
UK	0.0790***	-0.0665***	0.0240***
	(0.0056)	(0.0089)	(0.0011)
Greece	-0.1667***	-0.0995***	-0.0492***
	(0.0042)	(0.0080)	(0.0006)
Spain	-0.0731***	-0.0513***	-0.0363***
	(0.0042)	(0.0080)	(0.0006)
Portugal	-0.1033***	-0.1236***	-0.0476***
	(0.0042)	(0.0080)	(0.0006)
Germany (East)	-0.1813***	-0.2408***	-0.0776***
	(0.0180)	(0.0336)	(0.0042)
Norway	0.3171***	0.2436***	0.0901***
	(0.0125)	(0.0183)	(0.0029)
Finland	0.2676***	0.1848***	0.0627***
	(0.0125)	(0.0183)	(0.0029)
Sweden	0.3359***	0.1259***	0.0858***
	(0.0125)	(0.0183)	(0.0029)
Austria	0.2500***	0.1259***	0.0631***
	(0.0125)	(0.0183)	(0.0029)
US	0.0803***	-0.0410***	-0.0617***
	(0.0056)	(0.0089)	(0.0011)
Bulgary	-0.3725***	-0.4716***	-0.1169***
	(0.0180)	(0.0336)	(0.0042)
China	-0.5415***	-0.7934***	-0.0865***
	(0.0131)	(0.0220)	(0.0025)
Czech Republic	-0.2887***	-0.3663***	-0.0911***
	(0.0100)	(0.0163)	(0.0025)
Hungary	-0.2284***	-0.2997***	-0.0802***
	(0.0100)	(0.0163)	(0.0025)
Japan	-0.1271***	-0.0787***	-0.0141***
	(0.0040)	(0.0079)	(0.0011)
Poland	-0.2569***	-0.3330***	-0.0770***
	(0.0100)	(0.0163)	(0.0025)
Romania	-0.3423***	-0.3947***	-0.1071***
	(0.0180)	(0.0336)	(0.0042)
Russia	-0.5854***	-0.8369***	-0.1016***
	(0.0056)	(0.0089)	(0.0011)
Slovenia	-0.4064***	-0.5211***	-0.0984***
	(0.0125)	(0.0183)	(0.0029)
Switzerland	0.3979***	0.1215***	0.1371***
	(0.0090)	(0.0150)	(0.0015)
Turkey	-0.7266***	-1.0172***	-0.1241***
	(0.0087)	(0.0146)	(0.0017)
Constant	2.6779***	2.9303***	0.1313***
	(0.0353)	(0.0476)	(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

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

Table 3:

Summary Statistics

Panel A contains summary statistics for trust and for the bilateral controls. Trust is calculated by taking the average response to the following question: "I would like to ask you a question about how much trust you have in people from various countries. For each, please tell me whether you have a lot of trust, some trust, not very much trust or no trust at all". The answers are coded in the following way:=1 (no trust at all), = 2 (not very much trust), =3 (some trust), =4 (a lot of trust). Log of distance is the log distance between the capital of two countries. 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. Religious similarity measures the fraction of people with the same religious faith in the two countries. Genetic distance is the coancestry coefficient (Reynolds et al., 1983) calculated by Cavalli-Sforza et. al. (1996). Number of years at war have been calculated using the current nations borders as definition of the countries. Common origin of the language is a dummy variable that is equal to one if the two countries' main language belongs to the same family (Encyclopdia Britannica, 2004). Press coverage is the number of times a country name appears in the headlines of the major newspaper in each country over the total number of foreign news. Perceived pleasantness is the percentage of times in which country j was mentioned by all the citizens of country i when answering to the question: "Which countries of the European Community are in your opinion the most pleasant (maximus 3 answers possible)?". Panel B show summary statistics for the trade dataset. Panel C shows summary statistics for the portfolios datasets. Panel D shows summary statistics for the foreign direct investment data. More detailed description of the variables is in the Appendix.

Panel A: Trust and control variables

	Mean	Median	Std. Dev.	Min	Max	Observations
Average trust	2.6892	2.702395	0.382119	1.273469	3.691296	1747
Median trust	2.802519	3	0.479756	1	4	1747
Fraction of individuals trusting a lot	0.166415	0.129799	0.119707	0.007926	0.724696	1747
Log of distance	6.789666	7.166188	2.06189	0	9.319677	1218
Common Border	0.20936	0	0.407019	0	1	1218
Common Language	0.102645	0	0.28424	0	1	1576
Common origin of the law	0.307384	0	0.461542	0	1	1747
Religious similarity	0.302211	0.260225	0.274927	0	1	1477
Genetic distance (F_ST values x10000)	84.10098	51	157.9136	0	1244	1119
Number of years countries pair of countries have been at war (1000-1970)	12.26027	1	27.49516	0	198	1679
Number of years countries pair of countries have been at war (1000-1815)	10.73496	0	27.03215	0	197	1679
Common origin of the language	0.204923	0	0.403761	0	1	1747
Press coverage	0.050226	0.023036	0.070083	0	0.43956	1122
Perceived pleasantness	0.219059	0.158209	0.152429	0.035857	0.693918	393

Panel B: OECD Trade data

	Mean	Median	Std. Dev.	Min	Max	Observations
Log of export to partner country	21.73346	21.78179	1.706686	16.39889	24.71577	523
Average trust from importer to exporter	2.75053	2.74320	0.26174	2.00809	3.56920	523
Press coverage	0.039942	0.021008	0.048018	0	0.313644	523
Log of distance	6.872155	7.00996	0.682036	5.156525	8.121116	523
Common Border	0.208413	0	0.406563	0	1	523
Remoteness of importers and exporter	108.1636	95.95883	38.99377	41.31882	244.9526	523
Common Language	0.038759	0	0.174196	0	1	523
Common origin of the law	0.305927	0	0.46124	0	1	523
Religious similarity	0.333771	0.330315	0.257848	0	0.82643	523
Genetic distance (F_ST values x10000)	60.14914	47	46.28035	9	289	523
Numbers of Years the two countries were at war 1000-1815	24.85086	8	39.34571	0	197	523
Gdp of importing country	571.7258	326.162	578.6796	22.043	2384.115	523
Gdp of exporting country	633.4809	501.749	597.7894	22.043	2384.115	523

Panel C: Porfolio data (Morningstar)

	Mean	Median	Std. Dev.	Min	Max	Observations
Percentage invested in partner country	0.085284	0.03756	0.141545	0.00024	0.71733	106
Inverse Covariance of stock market returns	-6.69E-06	-5.20E-07	0.000289	-0.00255	0.00062	106
Press coverage	0.036559	0.021825	0.038759	0	0.179437	87
Common Border	0.320755	0	0.468984	0	1	106
Common Language	0.018888	0	0.083955	0	0.68	106
Log of distance	6.880427	7.027041	0.681236	5.156525	7.990542	97
Average trust from investing country to partner	2.980226	2.921709	0.316695	2.353828	3.691296	106
Religious similarity	0.364102	0.324747	0.304957	0.011738	1	104
Genetic distance (F_ST values x10000)	49.07547	39	36.32911	0	159	106
Numbers of Years the two countries were at war 1000-1815	21.49057	0	33.47188	0	149	106
Common origin of the law	0.377358	0	0.487029	0	1	106
Distance in the characteristics of security laws (LLSV)	20.95519	21.07042	3.655723	13.56208	29	106

Panel D: Foreign Direct Investments (OECD)

	Mean	Median	Std. Dev.	Min	Max	Observations
Outward stock of FDI (log)	21.14297	21.58054	2.102636	12.41738	24.17526	317
Average trust from country to each partner	2.771875	2.772105	0.261273	2.103876	3.527406	317
Press coverage	0.049338	0.038305	0.051371	0	0.313644	317
Log of distance	6.765482	6.971646	0.701486	5.156525	8.121116	317
Common Border	0.252366	0	0.435057	0	1	317
Common Language	0.051123	0	0.198329	0	1	317
Common origin of the law	0.312303	0	0.464165	0	1	317
Religious similarity	0.352858	0.333012	0.220658	0.014418	0.82643	315
Genetic distance (F_ST values x10000)	0.004993	0.0039	0.003293	0.0009	0.0223	317
Numbers of Years the two countries were at war 1000-1815	29.20505	9	42.02439	0	197	317

Table 4:

Determinant of Trust

The dependent variable is the average trust across individuals of a given country toward 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). Log of distance is the log distance between the capital of two countries. 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. 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. Common origin of the language is a dummy variable that is equal to one if the two countries' main language belongs to the same family (Encyclopdia Britannica, 2004). 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. The standard errors reported in parenthesis are corrected for the potential clustering at the country of destination level. The symbols ***, **,* mean that the coefficient is statistically different from zero respectively at the 1,5, and 10 percent level.

	(1)	(2)	(3)	(4)	(5)	(6)
Common language	0.0208	0.0394	0.0394	0.0568	0.0339	0.0571
	(0.0926)	(0.1102)	(0.1102)	(0.0978)	(0.1231)	(0.1069)
Log (distance)	-0.0692***	-0.0373	-0.0373	-0.0326	0.0038	0.0036
	(0.0155)	(0.0218)	(0.0218)	(0.0195)	(0.0451)	(0.0456)
Common border	-0.0381	-0.0124	-0.0124	-0.0227	0.0195	0.0064
	(0.0307)	(0.0287)	(0.0287)	(0.0275)	(0.0476)	(0.0474)
Common origin of the law	0.1042***	0.0868**	0.0868**	0.0758*	0.0942**	0.0819**
	(0.0279)	(0.0407)	(0.0407)	(0.0369)	(0.0412)	(0.0328)
Number of years at war since 1000		-0.0009	-0.0009	-0.0009	-0.0009	-0.0009
		(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0005)
Religious similarity		0.1357*	0.1357*	0.0723	0.1622**	0.1005*
		(0.0657)	(0.0657)	(0.0580)	(0.0612)	(0.0555)
Genetic distance (F_ST)		-10.5975**	-10.5975**	-7.8439*	-11.1681**	-8.3406*
		(4.2813)	(4.2813)	(3.8951)	(4.5803)	(4.3625)
Common origin of the language				0.1301***		0.1202***
				(0.0323)		(0.0328)
Country of origin fixed effects	YES	YES	YES	YES	YES	YES
Country of destination fixed effects	YES	YES	YES	YES	YES	YES
Observations	319	265	265	265	251	251
R-squared	0.828	0.816	0.816	0.829	0.822	0.834

Table 5:

Cultural bias or information?

The dependent variable is the average trust of citizens of country i toward citizens of country j. 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). Press coverage measures the geographical coverage of the main newspaper in country i about country j (Factiva). For each pair of countries, i and j, it is the percentage of news in the selected newspaper of country i about country j. Log of distance is the log distance between the capital of two countries. 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. 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. Common origin of the language is a dummy variable that is equal to one if the two countries' main language belongs to the same family (Encyclopdia Britannica 2004). Perceived pleasantness is the percentage of times in which country j was mentioned by citizens of country i in the following question: "Which countries of the European Community are in your opinion the most pleasant (maximus 3 answers possible)?". All regressions include fixed effects for the country of origin and for the destination country. 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. The standard errors reported in parenthesis are corrected for the potential clustering at the country of destination level. The symbols ***, **,* mean that the coefficient is statistically different from zero respectively at the 1,5, and 10 percent level.

	(1)	(2)	(3)
Press coverage	0.0717	-1.1324*	-2.0750
	(0.4315)	(0.5738)	(1.4602)
Perceived pleasantness			0.9104***
			(0.2383)
Common language		0.1015	-0.0165
		(0.1149)	(0.2834)
Log (distance)		-0.0175	0.0407
		(0.0479)	(0.0675)
Common border		0.0278	0.0219
		(0.0582)	(0.0791)
Common origin of the law		0.0978**	-0.0486
		(0.0377)	(0.1085)
Number of years at war since 1000		-0.0007	-0.0007
		(0.0004)	(0.0009)
Common origin of the language		0.0962***	-0.0598
		(0.0310)	(0.0675)
Religious similarity		0.1227*	0.2529
		(0.0594)	(0.1717)
Genetic distance (F_ST)		-5.6092	-8.7348
		(5.0192)	(10.6898)
Country of origin fixed effect	YES	YES	YES
Country of destination fixed effect	YES	YES	YES
Observations	330	216	50
R-squared	0.836	0.851	0.873

Table 6:

Effect of Trust on Trade

The dependent variable is the log of the export volume. 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). Press coverage measures the geographical coverage of the main newspaper in country i about country j (Factiva). For each pair of countries, i and j, it is the percentage of news in the selected newspaper of country i about country j. Log of distance is the log distance between the capital of two countries. Common border is a dummy variable equal to one if two countries share at least one border. Remoteness is a country-pair variable that measures the sum of the relative distance between the importer and all the other potential partners (excluding the exporter), where the relative distance is distance in kilometers over gdp of the trade partner. Common language is the percentage of people that speak the same language in each pair of countries (Boisso and Ferrantino (1997)). Output of the exporter and the importer are gross domestic products of the countries. 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, religious similarity, and genetic distance. 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 1815. 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). All regressions include fixed effects for the country of origin and for the destination country. The standard errors reported in parenthesis are corrected for the potential clustering at the country of destination 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	0.4991***	1.0297*	0.6047***	1.3988***	0.5013***	0.9495**
country to people in exporting country	(0.1183)	(0.5006)	(0.1078)	(0.4115)	(0.0678)	(0.4156)
Press coverage			4.5459***	5.1944***	4.0637***	4.4953***
			(0.9776)	(1.3384)	(0.8968)	(1.1732)
Log (distance)	-0.4956***	-0.4815***	-0.4117***	-0.3791***	-0.4239***	-0.4042***
	(0.0841)	(0.0768)	(0.0822)	(0.0806)	(0.0761)	(0.0742)
Common border	0.4441***	0.4194***	0.3092**	0.2536*	0.2713**	0.2474**
	(0.1079)	(0.1115)	(0.1227)	(0.1185)	(0.1040)	(0.1073)
Remoteness	0.0038**	0.0044**	0.0046**	0.0056**	0.0044***	0.0050**
	(0.0014)	(0.0016)	(0.0016)	(0.0020)	(0.0015)	(0.0019)
Common language	0.9634***	0.9427***	0.6747**	0.6031**	0.3325	0.3501
	(0.2913)	(0.2962)	(0.2270)	(0.2412)	(0.2996)	(0.2850)
Output exporter	1.8059	2.5854	4.6738	6.2274	4.3427	5.2407
	(13.2501)	(13.0105)	(13.5762)	(13.5007)	(13.7346)	(13.6866)
Output importer	8.3804	4.8346	6.2354	0.7235	7.1729	4.0260
	(8.9610)	(10.6900)	(8.3541)	(10.4110)	(8.1516)	(8.6946)
Common origin of the law					0.3699***	0.3301***
					(0.0969)	(0.0851)
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
Observations	523	523	523	523	523	523
R-squared	0.965	0.963	0.970	0.965	0.972	0.970

Panel B:

	OLS	IV	OLS	IV
Mean trust of people in importing	0.9128***	2.5602***	0.8324***	1.9913***
country to people in exporting country	(0.1302)	(0.5913)	(0.1287)	(0.6271)
Press coverage	21.6903***	46.0112**	25.2442***	35.7164*
	(5.7751)	(18.2227)	(6.5176)	(17.4521)
Interaction effect between press	-6.0599**	-14.3018**	-7.3935***	-10.8787*
coverage and trust	(2.1528)	(6.4334)	(2.3285)	(6.1244)
Log (distance)	-0.3672***	-0.2561**	-0.3853***	-0.3033***
	(0.0679)	(0.0856)	(0.0576)	(0.0913)
Common border	0.3497***	0.3189**	0.3050***	0.2909**
	(0.1074)	(0.1162)	(0.0873)	(0.1037)
Remoteness	0.0047***	0.0062***	0.0043***	0.0057***
	(0.0014)	(0.0014)	(0.0012)	(0.0014)
Common language	0.6750***	0.5646***	0.2888	0.3456
	(0.1815)	(0.1464)	(0.2378)	(0.2016)
Output exporter	2.1132	1.0334	0.6721	1.6141
	(13.7054)	(14.5773)	(13.6012)	(14.0855)
Output importer	5.9240	-3.0248	6.6824	0.0508
	(8.6135)	(12.3580)	(8.4828)	(11.0749)
Common origin of the law			0.3572**	0.2367
			(0.1218)	(0.1351)
Exporting country fixed effects	YES	YES	YES	YES
Importing country fixed effects	YES	YES	YES	YES
Years fixed effects	YES	YES	YES	YES
Observations	523	523	523	523
R-squared	0.971	0.957	0.974	0.966

Table 7:

Effect of Trust on Portfolio Investment

The dependent variable measures the percentage of net portfolio investment of a given country into another country. Specifically, the dependent variable is the stock of cross-border holdings of equities and long- and short-term debt securities valued at market prices prevailing at the end of 2001 (from Morningstar data) divided by the sum of all foreign equity holdings plus market capitalization- foreign liabilities. 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 inverse of the covariance of stock market returns is calculated using monthly data for each country (DATASTREAM). Press coverage measures the geographical coverage of the main newspaper in country i about country j (Factiva). For each pair of countries, i and j, it is the percentage of news in the selected newspaper of country i about country j.Common border is a dummy variable equal to one if two countries share at least one border. Common language is the percentage of people that speak the same language in each pair of countries (Boisso and Ferrantino (1997)). Log of distance is the log distance between the capital of two countries. Proximity of security is country-pair variable that measure the sum of the proximity of each security law characteristics based on La Porta et al. (2003). 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, religious similarity, and genetic distance. 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 1815. 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). All regressions include fixed effects for the country of origin and for the destination country. The standard errors reported in parenthesis are corrected for the potential clustering at the country of destination 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 toward	0.0525	0.1849***	0.0028	0.0674	0.0507	0.1813***
people in destination country	(0.0431)	(0.0369)	(0.0464)	(0.0794)	(0.0473)	(0.0351)
Inverse Cov. of stock market returns	-27.2097	-33.8815	-6.7965	-17.0751	-28.3193	-32.2657
of country of origin and destination	(18.9353)	(20.2278)	(13.0970)	(14.6981)	(22.9736)	(25.0296)
Press coverage	0.2663	0.2883	0.0387	0.1476	0.2675	0.2889
	(0.1779)	(0.1677)	(0.1435)	(0.1695)	(0.1785)	(0.1728)
Common border	0.0047	0.0137	0.0095	0.0117	0.0042	0.0139
	(0.0205)	(0.0253)	(0.0191)	(0.0210)	(0.0205)	(0.0258)
Common language	-0.0419	-0.0880	-0.0619	-0.0793	-0.0379	-0.0916
	(0.0646)	(0.0594)	(0.0512)	(0.0463)	(0.0801)	(0.0770)
Log (distance)	-0.0381*	-0.0010	-0.0263	-0.0059	-0.0383*	-0.0017
	(0.0197)	(0.0239)	(0.0168)	(0.0184)	(0.0196)	(0.0244)
Proximity of					0.0007	-0.0010
security laws					(0.0064)	(0.0051)
Common origin of the law			0.0394***	0.0296		
			(0.0111)	(0.0163)		
Investing country fixed effects	YES	YES	YES	YES	YES	YES
Destination country fixed effects	YES	YES	YES	YES	YES	YES
Observations	87	85	87	85	87	85
R-squared	0.833	0.833	0.848	0.859	0.833	0.834

Panel B:

	OLS	IV	OLS	IV	OLS	IV
Mean trust toward	0.0820	0.1706**	0.0324	-0.0734	0.0808	0.1559**
people in destination country	(0.0445)	(0.0538)	(0.0453)	(0.1116)	(0.0440)	(0.0544)
Inverse Cov. of stock market returns	-12.2518	-13.1826	9.5028	-28.9855	-13.5684	-15.7457
of country of origin and destination	(26.5632)	(41.4089)	(21.0813)	(19.0513)	(26.2582)	(38.6037)
Press coverage	2.7708**	3.5593	2.6639*	-3.0229	2.7795*	3.4691
	(1.1151)	(3.6459)	(1.3092)	(4.5030)	(1.2093)	(3.5460)
Interaction effect between press	-0.8453**	-1.0989	-0.8882*	1.0629	-0.8496*	-1.0675
coverage and trust	(0.3584)	(1.2522)	(0.4386)	(1.5375)	(0.3925)	(1.2146)
Common border	0.0045	0.0098	0.0095	0.0071	0.0045	0.0089
	(0.0220)	(0.0253)	(0.0211)	(0.0189)	(0.0216)	(0.0239)
Common language	-0.0163	-0.0386	-0.0356	-0.0926	-0.0087	-0.0259
	(0.0630)	(0.0666)	(0.0501)	(0.0607)	(0.0642)	(0.0660)
Log (distance)	-0.0378	-0.0106	-0.0257	-0.0152	-0.0376	-0.0116
	(0.0204)	(0.0241)	(0.0183)	(0.0183)	(0.0206)	(0.0236)
Proximity of					0.0069	0.0098
security laws					(0.0174)	(0.0158)
Common origin of the law			0.0405**	0.0416*		
			(0.0128)	(0.0189)		
Investing country fixed effects	YES	YES	YES	YES	YES	YES
Destination country fixed effects	YES	YES	YES	YES	YES	YES
Observations	87	85	87	85	87	85
R-squared	0.841	0.848	0.857	0.826	0.842	0.851

Table 8:

Effect of Trust on Foreign Direct Investments

The dependent variable is the log of outward investment (stocks). 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). Press coverage measures the geographical coverage of the main newspaper in country i about country j (Factiva). For each pair of countries, i and j, it is the percentage of news in the selected newspaper of country i about country j. Log of distance is the log distance between the capital of two countries. Common border is a dummy variable equal to one if two countries share at least one border. 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, religious similarity, and genetic distance. 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 1815. 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). All regressions include fixed effects for the country of origin and for the destination country. The standard errors reported in parenthesis are corrected for the potential clustering at the country of destination 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 toward	0.5568	1.4381	0.6130	2.1044*	0.2737	0.0066
people in destination country	(0.5227)	(1.0806)	(0.5144)	(1.1473)	(0.5240)	(1.1544)
Press coverage			1.5300	3.4219	-0.2555	-0.4846
			(2.4941)	(3.1275)	(2.0385)	(2.1212)
Log (distance)	-0.6086*	-0.4525	-0.5795	-0.3603	-0.5639	-0.5490
	(0.3296)	(0.3744)	(0.3551)	(0.4193)	(0.3216)	(0.3402)
Common border	0.5931**	0.5583**	0.5443*	0.4302	0.3787*	0.3922*
	(0.2679)	(0.2542)	(0.2559)	(0.2512)	(0.1779)	(0.1933)
Common language	0.7153	0.6451	0.6120	0.3424	-0.6512	-0.5914
	(0.5594)	(0.5483)	(0.6205)	(0.7471)	(0.7044)	(0.7139)
Common origin of the law					1.3100***	1.3142**
					(0.4257)	(0.4803)
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
Observations	317	315	317	315	317	315
R-squared	0.805	0.803	0.806	0.796	0.830	0.830

Panel B:

	OLS	IV	OLS	IV
Mean trust toward	1.4299*	10.4830***	1.2300	7.2690***
people in destination country	(0.6875)	(3.0250)	(0.7189)	(2.2536)
Press coverage	42.3447**	269.4568***	48.1691**	207.9914***
	(15.1964)	(86.9592)	(17.2268)	(53.3227)
Interaction effect between press	-14.3675**	-92.4070***	-17.0730**	-72.0773***
coverage and trust	(5.2075)	(29.9974)	(6.1066)	(18.3821)
Log (distance)	-0.4493	0.7304	-0.4085	0.3492
	(0.3633)	(0.7274)	(0.3232)	(0.5452)
Common border	0.6530**	0.9120**	0.5008***	0.7397**
	(0.2146)	(0.4125)	(0.1374)	(0.2769)
Common language	0.4935	-1.0417	-0.8458	-1.6638
	(0.5489)	(1.0870)	(0.5436)	(0.9514)
Common origin of the law			1.3657***	1.1632*
			(0.3617)	(0.5365)
Exporting country fixed effects	YES	YES	YES	YES
Importing country fixed effects	YES	YES	YES	YES
Years fixed effects	YES	YES	YES	YES
Observations	317	315	317	315
R-squared	0.810	0.561	0.837	0.722

Appendix A: The Data

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

Data Appendix

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 Fst, (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.

Fst for 2 populations is

$$Fst = \frac{\sum_m \sum_i [p_{1mi} - p_{2mi}]^2}{2 \sum_m [1 - \sum_i p_{1mi} p_{2mi}]} \tag{2}$$

where m is measured over loci, and i over alleles at the mth 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 Fst 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.