

Does Bilateral Trust Across Countries Really Affect International Trade and Factor Mobility?*

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Abstract

This paper examines whether bilateral trust across countries affects international trade and migration. Following Guiso, Sapienza and Zingales (*Quarterly Journal of Economics*, 2009; henceforth GSZ), we capture the exogenous variance of bilateral trust by measuring physical dissimilarities ("somatic distance") between country-pairs. We employ seven alternative somatic distance indicators in addition to the one by GSZ. As they are all equally valid instruments, it should not matter in two-stage least squares estimations which one of them we use at the first stage. However, bilateral trust significantly affects international trade only if employing the indicator by GSZ. In the context of international migration, bilateral trust never enters significantly at the second stage. Overall, we find little evidence that bilateral trust and/or cultural proximity affect international trade or migration.

Key words: Bilateral trust; Cultural proximity; International migration; International trade; Somatic distance.

JEL classification: F10; F22; Z10.

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1 Introduction

The role of cultural proximity and trust for economic exchange is a long-standing issue which has found renewed interest in the more recent literature. For instance, there is extensive research on the commonality of language for international trade and factor mobility. In a widely received contribution, Guiso, Sapienza and Zingales (2009, henceforth GSZ) have alluded to a different role of cultural proximity for international economic exchange running through trust considerations. They present empirical evidence suggesting that higher average trust which citizens of a country importing goods have towards citizens of their partner country, which we refer to as "Destination-to-Source (DtS) trust", has a significant and economically important causal effect on bilateral trade across countries. To address endogeneity concerns, GSZ aim to isolate the exogenous variation of DtS trust with two indicators, a measure of physical dissimilarities between the 'representative' individuals in two countries (called "somatic distance") and a measure of religious similarity. GSZ acknowledge that these instruments may affect bilateral trust through cultural and institutional channels different to bilateral trust, questioning the validity of their identification strategy. Yet, they argue that their positive and significant instrumental variable (IV) coefficient on DtS trust is evidence that cultural proximity is an important determinant of international trade, even if the instruments do not satisfy the exclusion restriction.

This paper reconsiders, first, the relationship between bilateral trust and international trade flows,¹ attempting to replicate the results of GSZ by thorough sensitivity analysis. In fact, there is a large degree of freedom when constructing an indicator of somatic distance which may serve as an instrument for bilateral trust. We attempt to examine the robustness of their IV results by defining seven alternative measures of

¹Trade is often characterized by incomplete contracts as it is too costly to take into account or even know all contingencies when establishing them. Furthermore, it can be difficult to negotiate, monitor and enforce contracts, especially in international trade where the commercial partners are established in different jurisdictions (Rodrik, 2000). As a result, profitable trade opportunities might not be realized, unless the parties trust each other (Akerlof, 1970; Arrow, 1972; Greif, 1993, 2000; Coleman, 1994; Kallcock, 1994; Fukuyama, 1995; Knack and Keefer, 1997; Paldam, 2000; Dyer and Chu, 2003).

somatic distance in addition to the one by GSZ and by estimating the reduced form equation where trade flows are regressed on all explanatory variables as well as on somatic distance and religious similarity. Since all somatic distance indicators are equally valid and strong instruments, it should not matter for consistent IV estimates which indicator we choose to instrument bilateral trust with. Using the identification strategy of GSZ and employing their somatic distance indicator as instrument, we find that an increase of one standard deviation in instrumented DtS trust increases aggregated export flows on average by 24 percent. This basically replicates their original finding. However, neither our alternative somatic distance measures nor religious similarity are significant when estimating the reduced form equation. Moreover, according to Fehr (2009), particularly religious similarity may violate the exclusion restriction when examining the relationship between bilateral trust and international trade. When not excluding religious similarity at the second stage of the IV estimation, the coefficient of bilateral trust becomes insignificant and its magnitude declines considerably, sometimes even becoming negative, as soon as we do not use the original indicator by GSZ as instrument. Thus, although we cannot solve all of the possible identification problems in the analysis of GSZ, the main contribution of our paper regarding international trade is to show that the conclusion of GSZ cannot be supported with their approach.

The second part of this paper focuses on the relationship between bilateral trust and international migration.² Potentially, trust in the citizens of a host country may have an impact on the decision to migrate to a foreign country. Generally, individuals only migrate to a foreign country if expected migration benefits exceed expected migration costs. However, forming such expectations is difficult as migrants are generally not fully aware of the economic, social, political, institutional, and cultural environment of potential host countries. In such a context, their decision to migrate may also rely on the trust they generally have in citizens of the destination country. This bilateral trust, which we refer to as "Source-to-Destination (StD) trust", might change the way

²GSZ studied the effect of trust on international capital flows, in addition to trade flows, but did not consider international labor migration. Future research may attempt replicating the findings by GSZ with respect to international capital mobility.

expectations on costs and benefits of moving abroad are formed. Thus, there is some reason to believe that StD trust may directly affect international migration by changing its expected net return. Likewise, the trust that citizens from the destination country grant citizens from the source country (i.e. DtS trust) may play a role in the migration decision. For instance, it may affect immigration policies towards specific countries or regions.

To test these hypotheses, we derive a structural equation from a random utility maximization model. This equation is then estimated with the IV strategy suggested by GSZ and the robustness of the results are examined by a similar sensitivity analysis to the one used in the context of international trade. When using any of our eight measures of somatic distance as sole instrument, we are unable to find a significant and quantitatively important effect of bilateral trust on migration flows.

The rest of the paper is organized as follows. The next section gives a brief account on the literature on trust effects on macroeconomic outcomes. Section 3 analyzes the causal effect of bilateral (DtS) trust on international trade, first extensively discussing the empirical model and identification strategy before presenting the results. Section 4 proposes a structural model and similar identification strategy to analyze the effects of both StD and DtS trust on international migration and presents empirical results. The last section concludes.

2 Related Literature

This paper is part of a growing literature that analyzes the role of cultural proximity and trust for economic outcomes. In this section, we focus on empirical studies employing aggregate data and ignore the microeconomic trust literature which is largely based on experimental data, on which Fehr (2009) provides an excellent survey.

Comparing Italian regions, Putnam (1993) finds that intra-regional trust increases participation in social activities, facilitates cooperation, and improves the effectiveness

of institutions.³ More recently, empirical studies suggest that trust within a region fosters economic development and growth also through its positive effect on total factor productivity (Bjornskov, 2010), on financial development (Guiso et al., 2004, 2008b), and on the rate of investment (Knack and Keefer, 1997; Zak and Knack, 2001). Algan and Cahuc (2010) and Tabellini (2010) find a causal effect of inherited and historically determined "general" trust (proposed by the World Values Surveys) within regions on economic growth. By contrast, we are concerned with the effects of bilateral (i.e. inter-regional) trust on bilateral movement of goods and labor.

The related literature on the role of cultural proximity on international trade and migration has largely focussed on the role of common language, using various indicators (e.g. Falck, Heblich, Lameli and Südekum, 2012; Isphording and Otten, 2013; Egger and Lassmann, 2013; Melitz and Toubal, 2014; Chiswick and Miller, 2015). To examine the role of bilateral trust (possibly through somatic distance and religious similarity) across countries on international migration patterns, we follow Bertoli and Morega (2013) and Ortega and Peri (2013), and derive a structural equation from a random utility maximization model (see also Roy, 1951; Sjaastad, 1962; Anderson, 1979; Borjas, 1987, 1989). This approach has also been used recently to examine the determinants of migration flows, for instance, migration policies (Mayda, 2010; Ortega and Peri, 2013), the variations in migration flows to the United States over time (Clark, Hatton and Williamson, 2007), the role of networks in the decision to move abroad (Pedersen, Pytlikova and Smith, 2008; Beine, Docquier and Ozden, 2011), the sorting and selection of potential migrants (Grogger and Hanson, 2011), the role of climatic factors (Beine and Parons, 2012), and the role of similar religious backgrounds in international migration (Spring, 2014).

³On trust and institutions, see also La Porta et al. (1997), Alesina and La Ferrara (2000), Bjornskov (2006), Tabellini (2008, 2010), Bloom, Sadun and Reeen (2009), and Aghion, Algan, Cahuc, and Shleifer (2010).

3 Bilateral Trust and International Trade

In this section, we examine the effects of DtS trust on commodity export flows.

3.1 Trade Equation and Data

We follow GSZ to estimate a gravity-type specification which includes DtS trust as regressor:⁴

$$\log(\text{export}_{sd,t}) = \beta_0 + \beta_1 \text{trust}_{ds,t} + \mathbf{X}'_{sd} \boldsymbol{\gamma} + \lambda_{s,t} + \lambda_{d,t} + \epsilon_{sd,t}, \quad (1)$$

where the dependent variable, $\log(\text{export}_{sd,t})$, is the natural logarithm of the aggregated commodity export flows from country s to country d in year t ;⁵ $\text{trust}_{ds,t}$ is the average DtS trust observed in year t across individuals in country d which participated in a Eurobarometer survey to citizens in country s according to the answer to the following question: "*I would like to ask you 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.*" It was asked in the years 1970, 1976, 1980, 1983, 1986, 1990, 1991, 1993, 1994, and 1996, with sample size increasing over time.⁶ Analogously to GSZ, the individual answers are coded as 1 (no trust at all), 2 (not very much trust), 3 (some trust), 4 (a lot of trust). For reasons of comparability, we follow GSZ and focus on countries that were members of the European Economic Area before 1997 and for Norway. \mathbf{X}'_{sd} is a vector of time-invariant bilateral variables which capture trade costs (Anderson and van Wincoop, 2004). It includes dummy variables that take the value 1 whenever two countries share a border, an official language, or when their

⁴For a short overview of the origin of the gravity model and the corresponding literature see Anderson (1979, 2011), Anderson and van Wincoop (2003), Baldwin and Taglioni (2006), Head and Mayer (2013), and Felbermayr, Grossmann and Kohler (2015).

⁵Aggregated commodity export flows are taken from the UN Comtrade Database; <http://comtrade.un.org/db/default.aspx>. Unfortunately, we cannot include data on trade in services as this data is only collected since the year 2000. For the countries we focus on, there are no zero trade observations.

⁶See <http://zacat.gesis.org/webview/>. In 1996, citizens of 17 European countries were asked to indicate the trust they had towards citizens of 25 EU and non-EU countries.

legal system has the same origin.⁷ Following GSZ, we further include an indicator of press coverage that measures how many times a partner country was mentioned in the national newspapers,⁸ a proxy for transportation costs,⁹ and a measure of linguistic common roots, which can take values between zero and one:¹⁰ it is one whenever two countries share an official language, zero when the two official languages come from different language families, and takes values between zero and one whenever the official languages share some common nodes. Finally, we employ two different measures of geographical distance between country-pairs. First, we follow GSZ by using the indicator for geographical distance proposed by Frankel, Stein, and Wei (1995) which measures the (log) distance in kilometers between two capital cities. It assumes that the whole population is concentrated in one geographical point, thereby failing to capture the distribution of economic activity within a country. We only use it for direct comparison with the results of GSZ. We prefer, second, the population-weighted indicator of distances between big cities provided by Mayer and Zignago (2011).¹¹

$\lambda_{s,t}$ and $\lambda_{d,t}$ are time-varying country dummies which account for country- and time-specific determinants of international trade. According to Baldwin and Taglioni (2006), these dummies mitigate the bias stemming from the omission of what Anderson and van Wincoop (2003, 2004) call "multilateral resistance" to trade. The last term in equation (1), $\epsilon_{sd,t}$, is a mean-zero random variable. We compute standard errors that are robust to heteroskedasticity of unknown and arbitrary form. Moreover, we

⁷These dyadic dummy variables come from the CEPII Gravity Dataset generated by Head, Mayer and Ries (2010, 2013); see www.cepii.fr.

⁸The measure is based on data from www.factiva.com, which collects and archives informations made available by over 30'000 newspapers, journals, magazines, web pages, etc. on a broad range of contents from over 200 countries. It is constructed as follows: "In Factiva, we searched the newspaper with the highest circulation for each country. For each pair of countries i and j , we recorded the number of articles in the newspaper of countries that mentioned country j or its citizens in the headline. We divided this number by the number of total news stories on foreign countries" (GSZ; p. 1106).

⁹We employ the prices of shipping a 1.000 kg unspecified freight type load with no special handling in June 2011 as provided in <http://importexportwizard.com>. This measure is based on Giuliano, Spilimbergo and Tonon (2006).

¹⁰Data are drawn from www.ethnologue.com; also see Lewis, Simons and Fennig (2013).

¹¹Head and Mayer (2002) argue that the inclusion of the unweighted distance measure in a gravity-type equation systematically inflates the estimated border effect because it overestimates the geographical distances within a country relative to international distances.

cluster at the country-pair which allows the standard errors to be correlated over time within country-pair, but assumes that they are uncorrelated with errors of a different country-pair.

3.2 Identification and Instrumental Variables

We are particularly concerned that the Ordinary Least Squares (OLS) estimate of coefficient β_1 on DtS trust ($trust_{ds,t}$) is inconsistent because of omitted variable bias and measurement error – especially since the variable is based on survey data. GSZ instrument $trust_{ds,t}$ with a time-invariant proxy of religious similarity and a time-invariant indicator of somatic distance which measures the distance between three anthropometric characteristics observed in the native populations of two countries: the average height, the prevailing hair color, and the average cephalic index, which measures the average width and length of an individual’s skull. In an experiment, DeBruine (2002) finds that people trust other people who resemble themselves significantly more. We hence expect a decrease in somatic distance to increase bilateral trust. The second instrument, religious similarity, measures the probability that a randomly picked individual in country d has the same religion as a randomly picked individual in country s . As religiously similar individuals may share common values and beliefs, an increase in the variable may positively affect bilateral trust.

The employed instruments are time-invariant, whereas the trust measure is not. In fact, the trust variable varies over time in a non-negligible manner. Figure 1 displays the evolution of DtS trust over time for selected country-pairs with comparably high and low fluctuations. For instance, average trust across individuals of the Greek to the Danish fluctuated considerably over time, with a standard deviation of 0.35 across the various available years (reaching 2.56 on average). The average trust and its standard deviation over time of Germans to Italians is 2.41 and 0.26, respectively. By contrast, trust of the French to the Dutch (2.94 on average) and the Danish (2.96 on average) is pretty stable over time; their standard deviations are only 0.04 and 0.05, respectively.

One advantage of the instrumentation strategy may be seen in the attempt to elicit the culturally-rooted (thus stable) and ideally exogenous component of bilateral trust. GSZ provide survey evidence from additional questions which separate risk and trust considerations; the correlation patterns to the employed DtS trust variable suggests that it indeed "reflects the subjective probability that a random person is trustworthy" (GSZ, p. 1100).

We now discuss the construction of the instruments, their potential problems and our contribution to identify the causal effect of DtS trust on international trade flows.

3.2.1 Religious Similarity

The first employed instrument for DtS trust, an indicator for religious similarity, is constructed with data from the World Value Surveys presented by Guiso et al. (2003). They report the national distribution of population by the following religious affiliation: Catholic, Protestant, Jewish, Muslim, Hindu, Buddhist, no religious affiliation and other affiliations. We use this information to compute the probability that two randomly picked individuals in two different countries have the same religion. However, religious similarity may not satisfy the exclusion restriction. First, as criticized by Fehr (2009, p. 259): "Common religion not only influences trust, but does many other things as well, because it is probably associated with more frequent interactions between the two countries, compared to cases with different religions, and this may well have a direct impact on trade." Second, there is reason to believe that religiously similar persons share preferences for certain tradable goods. An obvious example concerns preferences for food. For instance, a Muslim living in Switzerland might import meat from France (where there is a large Muslim community) because he or she only eats "halal" meat.

Because potential validity problems are particularly severe when religious similarity is employed to instrument bilateral trust, we prefer specifications in which religious similarity enters as a control variable in the trade regression rather than being excluded at the second stage of the IV estimations.

3.2.2 Somatic Distance

Indicators of somatic distance, used in GSZ as a second instrumental variable for bilateral trust, can be constructed in many different ways. Four measures are made available in the online appendix to the paper by GSZ (Guiso et al., 2008a).¹² They are constructed based on four anthropometric indicators: hair color, cephalic index, height, and skin color. The first three anthropometric indicators were published by Biasutti (1959). He classifies the world into five categories of hair colors: 1 (blond prevails), 2 (mix of blond and dark), 3 (dark prevails), 4 (sporadic presence of blond), and 5 (exclusively dark). He further differentiates five categories of average cephalic indexes, going from 71.0 to 86+, and six categories of height. For illustration, Figure 2 reprints the distribution of the average cephalic index for European regions from Biasutti (1959).

Using today's borders, many countries fall into several classes of these traits, in which case GSZ focus on the predominant category and ignore the others. They attribute scores to the different groups of hair color, cephalic index, height, and skin color, and "compute the somatic distance between two countries as the sum of the absolute value of the difference in each of these traits" (GSZ, p. 1107). Their constructed four measures of somatic distance are all computed in the same fashion but they are based on different combinations of these four physical characteristics. One measure of somatic distance sums the absolute distance in all four dimensions. The sole measure used in the estimations of GSZ ignores the difference in skin color. A third measure is based on differences in hair color, height, and skin color. Finally, another measure only sums the absolute differences in hair color and height.

We construct four additional measures of somatic distance. To do this, we attribute the score of 1 to the category corresponding to the lowest average cephalic index (71.0 - 74.9), 2 to the second category (75.0 - 78.9), and so on. The six categories of height defined by Biasutti (1959) are coded the same way, attributing the lowest score of 1 to

¹²See www.kellogg.northwestern.edu/faculty/sapienza/htm/somaticdistance.zip.

the category "157.9 cm or less" and the highest score of 6 to "178 cm or more". First, we follow exactly the instructions given by Guiso et al. (2008a, p. 3) and try to replicate the single measure of somatic distance used in GSZ. Our second measure is based only on the absolute differences in hair color and height, as it is hardest to define which category of cephalic index prevails. The next two measures differ from the others by allowing a country to fall into two categories and weight them according to population density.¹³ One measure is again based on the three anthropometric indicators proposed by Biasutti while the other ignores the differences in cephalic index. The data on population density comes from two figures: a map with the population density in 1989 provided by the European Environment Agency and one with the population density in 2010 made available by the Nordic Center for Spatial Development.¹⁴ Not surprisingly, the somatic distance measures are highly correlated (and we use only one of them at the same time in each regression). The correlation coefficients between two somatic distance measures vary from 0.65 to 0.93.¹⁵

The disadvantage of instrumenting DtS trust only with somatic distance is that we have no means to statistically verify its exogeneity anymore. Yet, somatic distance might affect international trade also through other cultural and institutional factors than trust. To mitigate such concern, we follow GSZ by controlling for dyadic variables

¹³For some countries, we find it very difficult to decide which trait is prevailing, especially when focusing on the different categories of cephalic index. For example, in Figure 2 we see that northern Germany falls into category 3, "79.0 - 82.9", while the other half of Germany falls into category 4, "83.0 - 86.9". Guiso et al. (2008a) do not indicate how they decide which one of these categories prevails in such situations. We partially succeed to replicate their somatic distances when we decide visually (based on Figure 2) which trait covers a larger area and assume that it is the dominant characteristic. However, this procedure is somewhat arbitrary, especially when ignoring the distribution of the population. As the German population is approximately equally distributed, we would ignore the characteristics of half of the population if we arbitrarily decided that either category 3 or 4 prevails. To account for this, our two measures of somatic distance allow a country to be home of two categories of traits, depending on the distribution of the population. Concretely, in the case of Germany we find that the categories of cephalic index 3 ("79.0 - 82.9") and 4 ("83.0 - 86.9") roughly share the German territory and population. Therefore, we decide to attribute it the score of 3.5. This measure is certainly not flawless but it allows us to further explore the robustness of the results published in GSZ.

¹⁴See Stanners and Bourdeau (1994) or www.eea.europa.eu/publications/92-827-5122-8/page008.html for the chart on population density in 1989 and Roto (2011) or www.nordregio.se/en/Maps-graphs/ for the population density in 2010.

¹⁵See the online-appendix for a correlation matrix.

that could be correlated with somatic distance such as geographical distance between countries, common legal origin, and indicators of common language.¹⁶ However, we have to check whether somatic distance is so highly related to these bilateral variables that it would raise multicollinearity issues. To address this concern, we regress our measure of linguistic common roots on somatic distance (one indicator per regression) and the other time-invariant bilateral variables included in the analysis. The results of this regression suggest that linguistic common roots and somatic distance measures are negatively correlated, albeit the coefficient on somatic distance is not always significantly different from zero (see the online appendix). Moreover, the R^2 of these regressions range from 0.55 to 0.58, further suggesting that multicollinearity is not a problem. Finally, when an endogenous variable is only instrumented with one variable, Murray (2006) proposes to estimate the regression of interest again, using separately alternative instruments and to observe how the coefficient on the endogenous variable behaves. If this procedure yields estimates that only vary insignificantly from one another, then the credibility of the instrumental variable is strengthened. Such a sensitivity analysis can be performed here as there is a large degree of freedom in constructing a measure of somatic distance. The different indicators of somatic distance presented above all capture the physical dissimilarities between two countries and are constructed in a similar fashion. It should therefore not matter for consistent results which one of them is used to capture the exogenous variation of bilateral trust. Our main contribution is thus to perform a sensitivity analysis with respect to these alternative measures, thereby shedding light to the economic question of interest: does bilateral trust and, more generally, cultural proximity affect international trade, according to the approach used in GSZ?

¹⁶Regarding the latter, in a sensitivity analysis (section 3.4) we also employ other language-related measures provided by Melitz and Toubal (2014).

3.3 Results

We now present and discuss our main results for the trade regression. The descriptive statistics of the samples used to analyze the relationship between international trade and DtS trust are presented in Panel A of Table 1.

3.3.1 Replicating GSZ: OLS Estimates

Table 2 presents the results of estimating equation (1). In Panel A, we use a similar indicator of geographical distance between countries as GSZ (distance between two capital cities). In this case, we find coefficients on bilateral trust that are very similar to the ones published in their study.¹⁷ The coefficient on geographical distance is barely significant, however. Yet, we suspect this measure to be inadequate and we therefore replace it by the outlined population-weighted distance indicator. Results are shown in Panel B. The coefficients on bilateral distance now become significant and have point-estimates close to -1 which corresponds to the magnitude generally estimated in trade regressions that are based on the gravity model (Mayer and Zignago, 2011, p. 11). We also observe that the estimated border effect decreases compared to Panel A, supporting the conjecture made by Head and Mayer (2002) that measuring geographical distance by the distance between capital cities inflates the border effect. More importantly, we generally observe that, when including a weighted measure of distance in the specification, the point estimates of the coefficients on DtS trust decrease. The positive OLS estimates reported in columns (1) to (3) of Panel B are all insignificant. Notably, whereas GSZ (p. 1105, footnote 4) suggest that it does not matter much which geographical distance measure is used, our results suggest the opposite.

¹⁷Compare to Table IV in GSZ (pp. 1116 f.).

3.3.2 Replicating GSZ: IV Estimates

Next, as DtS trust is likely to be correlated with the error term, we apply the IV approach proposed by GSZ.¹⁸ When instrumented with both the measure of religious similarity and the measure of somatic distance used in GSZ, the coefficient on DtS trust becomes significant at the 5 percent level (column (4) of Table 2, Panel B). It suggests that an increase in DtS trust of one standard deviation increases aggregated commodity export flows on average by 24 percent which is more than six times the effect predicted by the OLS estimate. Both instruments enter significantly in the first-stage regression. Bilateral trust seems to increase with religious similarity and is reduced when physical dissimilarities between two countries become more important. The p -value of the Kleibergen-Paap rk LM Statistic also suggests that the instruments are jointly significant in the first stage of the two-stage least squares (2SLS) regression.¹⁹ In addition, the Wald statistic based on the Kleibergen-Paap rk statistic is larger than 10, indicating a sufficiently strong correlation between the instruments and DtS trust in order not to worry about weak identification problems.²⁰ Finally, the instruments pass the Hansen J -test intended to verify their exogeneity, i.e. that the instruments only affect the dependent variable through the trust channel.

The standard statistical tests hence suggest that the IV strategy used by GSZ is valid. Nevertheless, we suspect at least religious similarity to affect international trade

¹⁸We verify the endogeneity of bilateral trust with a control function approach (see Wooldridge, 2010, p. 127) and perform an endogeneity test that is robust to arbitrary heteroskedasticity, following Baum, Schaffer and Stillman (2007). Both tests allow us to reject the null hypothesis that bilateral trust is exogenous at conventional levels.

¹⁹The Kleibergen-Paap rk LM Statistic is the efficient first-stage statistic used to verify the relevance of the instruments when non-i.i.d. disturbances are assumed. Rejection of the null hypothesis suggests that the model is identified, i.e. that the instruments are relevant.

²⁰In the presence of i.i.d. disturbances, weak identification problems are detected with the Cragg-Donald F -statistic which is compared to the critical values published by Stock and Yogo (2005). However, in case of non-i.i.d. disturbances, the Kleibergen-Paap rk Wald statistic is the efficient statistic (Kleibergen and Paap, 2006; Kleibergen and Schaffer, 2007; Baum, 2007). So far, no critical values have been computed for this statistic and in practice it is usually compared to the threshold number of 10 recommended by Staiger and Stock (1997); see also Stock, Wright and Yogo (2002). As a robustness test, we compute the limited information maximum likelihood (LIML) estimates of all our 2SLS regressions and find that the bilateral trust coefficients only slightly change in their size and that the levels of statistical significance are identical to the IV estimates. The results of this sensitivity analysis are available in the online appendix.

also through other channels than bilateral trust. This sheds doubts on the results presented in column (4) and also on the over-identification test, as the latter is only reliable when the instruments are valid (Murray, 2006). Therefore, we estimate an alternative specification which includes religious similarity as a covariate and where the exogenous variation of bilateral trust is captured with a single instrument, the indicator of somatic distance used in GSZ. The results of estimating this specification are presented in column (5). The coefficient on DtS trust slightly increases and the significance is unchanged, compared to column (4).

3.3.3 Reduced Form Estimates

We further estimate the corresponding reduced form equation of the dependent variable. This equation is "derived by substituting the first-stage equation into the causal relation of interest" (Angrist and Pischke, 2009, p. 121).²¹ The first-stage regression is

$$trust_{ds,t} = \delta_0 + \delta_1 S_{ds} + \mathbf{X}'_{sd} \eta + \lambda_{s,t} + \lambda_{d,t} + u_{sd,t}, \quad (2)$$

where S_{ds} is the indicator of somatic distance between country d and country s , and \mathbf{X}'_{sd} contains all time-invariant bilateral exogenous covariates including the proxy for religious similarity. Substituting (2) into (1) and rearranging terms we find

$$\begin{aligned} \log(export_{sd,t}) &= (\beta_0 + \beta_1 \delta_0) + \beta_1 \delta_1 S_{ds} + (\beta_1 \eta + \gamma) \mathbf{X}'_{sd} + (\beta_1 + 1) \lambda_{s,t} + \\ &\quad (\beta_1 + 1) \lambda_{d,t} + (\beta_1 u_{sd,t} + \epsilon_{sd,t}) \\ &\equiv \tau_0 + \tau_1 S_{ds} + \mathbf{X}'_{sd} \phi + \hat{\lambda}_{s,t} + \hat{\lambda}_{d,t} + v_{sd,t}. \end{aligned} \quad (3)$$

$\hat{\lambda}_{s,t}$ and $\hat{\lambda}_{d,t}$ are time varying country dummies, and $v_{sd,t}$ is the error term. If the exclusion restriction is satisfied, then, by assumption, all variables in equation (3) are orthogonal to the error term $v_{sd,t}$. This implies that OLS consistently estimates the

²¹See Anderson and Rubin (1949), Dufour (2003), and Chernozhukov and Hansen (2008) for a formal explanation of this alternative test and Angrist and Krueger (1991, 2001) for an application of this method.

coefficients and that testing whether $\tau_1 \equiv \beta_1 \delta_1 = 0$ is an alternative way of testing the hypothesis that $\beta_1 = 0$ in equation (1). As Angrist and Pischke (2009, p. 213) point out, "if you can't see the causal relation of interest in the reduced form, it's probably not there".

Column (6) of Table 2 reports the results of estimating the reduced form (eq. (3)). As expected from the second-stage results, we see that the coefficient on somatic distance is significant, though only at the 10 percent level. Furthermore, religious similarity is not partially correlated with international trade. This result suggests that religious similarity as used by GSZ is not only a potentially invalid but also an irrelevant instrument, in turn biasing the 2SLS coefficient on bilateral trust (e.g. Murray, 2006; Angrist and Pischke, 2009). The finding comforts us in our decision to estimate alternative specifications that includes the proxy for religious similarity also at the second stage of the IV approach and to focus most of our discussions on these preferred specifications.

3.3.4 (Lack of) Robustness

To examine the robustness of the results reported in Table 2, we estimate eq. (1) again, keeping the same sample and the same explanatory variables. However, as discussed above, we vary the measure of somatic distance that we use as instrument for DtS trust.

The results of this sensitivity analysis are presented in Table 3, which is divided in four panels.²² Panel A reports the results of estimating the first-stage regression and Panel B of estimating the reduced form equation (3). The IV coefficients with and without religious similarity as explanatory variable are presented in Panels C and D, respectively. Each panel is composed of eight columns which differ in the indicator of somatic distance employed as instrument for DtS trust. We start with the four indicators made available by Guiso et. al (2008a). Columns (1) of Panels

²²We only report the coefficients on DtS trust, somatic distance, and religious similarity. Complete tables including the estimates of the coefficients on the control variables are available in the online appendix.

B, C and D restate the most important results presented in Table 2 (columns (6), (4) and (5), respectively), where we employ the somatic distance measure actually used in GSZ, i.e. the sum of the absolute values of the difference in hair color, height, and cephalic index (HHC) of two average citizens living in distinct countries. Column (2) is based on a somatic distance measure that additionally considers the differences in the skin color (HHCS). For column (3), the differences in the cephalic index (HHS) are ignored. The measure used for column (4) sums the absolute differences in hair color and height (HH). For columns (5) and (6), we use the measures of somatic distance that we constructed ourselves following the instructions given in Guiso et al. (2008a), first, trying to replicate the measure actually used in GSZ (column (5))²³ and, second, disregarding the potentially problematic cephalic index. Finally, the ones used for the last two columns take the distribution of the population within a country into account, first, by accounting for the cephalic index (column (7)), and, second, by disregarding it (column (8)).

According to Panel A of Table 3, the first-stage OLS coefficients on the instrumental variables are significantly different from zero in every column and the point-estimates are similar across the various somatic distance measures. Panels C and D present the statistics that give indications on the validity of the instruments. According to these statistics, all the instruments are equally relevant, exogenous, and strong. Therefore, one may expect to find similar results in the reduced form and in the second stage, no matter which somatic distance measure we use. However, this is not what we observe. When estimating the reduced form equation (2), according to Panel B, we find a significant coefficient on somatic distance only in column (1) where we use the original indicator of GSZ. Consequently, the only IV coefficients on DtS trust that are significant in Panel C and in Panel D are the ones instrumented with the somatic distance measure employed by GSZ. As soon as we use an alternative measure of somatic distance as instrument (columns (2)-(8)), the significance of the trust coefficients disappears and the magnitude decreases. Column (5) shows the results using the somatic distance

²³For several country-pairs, we did not manage to do so which may explain the diverging results.

measure we constructed ourselves following the instructions of GSZ in the attempt to replicate their results and those in column (1). Although its coefficient is similar to the original indicator at the first stage (compare column (1) and (5) in Panel A), it enters positively in the reduced form estimate (Panel B). Moreover, the coefficient on instrumented DtS trust is negative (albeit insignificant) at the second stage (Panel D).

We now further discuss the identification strategy and our main results.

3.4 Further Sensitivity Analysis and Discussion

To address the concern that somatic distance might be correlated with cultural and institutional factors that affect international trade (potentially violating the exclusion restriction), we included dyadic variables and verified that the results do not suffer from multicollinearity. For instance, we control for linguistic similarities by including an indicator of common official language and a proxy for linguistic common roots based on the language trees provided by the Ethnologue. However, these measures might not be sufficient to appropriately control for linguistic similarity in the context of trade (Isphording and Otten, 2012; Melitz and Toubal, 2014). To address this issue, we replace our measure of linguistic common roots, which we found to be insignificantly related to trade, by three alternative measures suggested by Melitz and Toubal (2014): an indicator of common native language, an indicator of common spoken language, and an indicator of linguistic proximity between different native languages.²⁴ These language measures are slightly correlated with the somatic distance indicators but when we simultaneously include all four of them in the trade equation, the reduced form and IV estimates are almost identical to the ones presented in Table 3, again suggesting that DtS trust does not affect international migration.²⁵

Another concern may be that bilateral trust across countries does not affect international trade flows contemporaneously but with a lag. We therefore re-estimate the

²⁴Melitz and Toubal (2014) highlight that a measure of linguistic common roots based on the language trees provided by the Ethnologue is problematic, as it does not allow the comparison of languages that belong to different trees.

²⁵The regression results and the correlations are reported in the online appendix.

2SLS procedure analogously to Table 3, by allowing instrumented trust to affect trade flows two years and four years later. The results of these estimations are reported in Panel A and Panel B of Table 4, respectively. Reduced form estimates and the results in which the various somatic distance indicators are employed as (sole) instruments are again basically unchanged.

Finally, we enlarged the sample by including non-European countries for which data availability is sufficient. Even when sticking to the somatic distance indicator used in GSZ, the coefficient on instrumented DtS trust at the second stage is insignificant, like the OLS estimate (results not reported).

In sum, DtS trust does not remain significant in the trade regression when we instrument it with alternative measures of somatic distance that are equally valid as the one employed by GSZ. According to GSZ (p. 1120), "it is possible that – test of overidentifying restrictions notwithstanding – our instruments are not orthogonal to trade, but pick up a set of cultural, institutional, and legal connections that facilitate trade flows. [...] If this is the case, our results suggest the importance of culture-specific factors in trade relationships". However, according to our reduced form estimates, neither religious similarity nor the alternative somatic distance indicators we consider additionally to GSZ affect trade. Neither do estimates where we included additional controls or allowed for lags in the trust-trade relationship suggest that bilateral trust or possible institutional and cultural factors picked up by their instrumentation strategy causally affect trade. Thus, contrary to their conclusion, we do not find robust evidence via their approach that bilateral trust and/or cultural proximity apart from common language indicators causally affect international trade.

4 Bilateral Trust and International Migration

As exposed in the introduction, we have reasons to suspect that bilateral trust affects international migration. StD trust might influence the way expectations on costs and benefits of moving abroad are shaped while DtS trust may, for example, affect immi-

gration policies in the destination countries. The econometric model we use is similar to (1) with migration flows rather than trade flows as dependent variable, but less standard. We therefore derive the estimated equation in a structural way by presenting a Roy model which heavily draws on recent contributions by Ortega and Peri (2013) and Bertoli and Moraga (2013).

4.1 Structural Model and Data

Consider an individual i born in country s . Suppose that utility from staying in s , denoted by U_{ss}^i and moving to country $d \neq s$, U_{sd}^i , can be additively decomposed into a component which is common for all individuals in country s (V_{ss}, V_{sd}), and a component which is location- and individual-specific ($\theta_{ss}^i, \theta_{sd}^i$):

$$U_{sj}^i = V_{sj} + \theta_{sj}^i, \quad j \in \{d, s\}. \quad (4)$$

Suppose that we do not observe the individual-specific components, but know that θ_{ss}^i and θ_{sd}^i , $d \neq s$, are all identically and independently type-I extreme value distributed with no correlation between θ_{ss}^i and θ_{sd}^i , $d \neq s$, but correlation among the terms θ_{sd}^i , $d \neq s$. Allowing for correlation among the individual-specific terms of all potential destination countries accounts for unobserved individual heterogeneity which captures that migrants could be a selected group and have correlated utility within destination countries. It relaxes the assumption of independence of irrelevant alternatives previously applied in the migration literature (e.g. Beine et al., 2011; Grogger and Hanson, 2011). In the language of a nested logit model (McFadden, 1978), we assume that all destination countries are treated as belonging to the same nest.²⁶ Considering the now standard Generalized Extreme Value generating function (McFadden, 1978), we can write the probability of observing that an individual i born in country s does not

²⁶This is a special case of Bertoli and Moraga (2013) which has been proposed by Ortega and Peri (2013).

migrate by

$$p_s = \frac{e^{V_{ss}}}{e^{V_{ss}} + \left(\sum_{d \neq s} e^{V_{sd}/\tau} \right)^\tau}, \quad (5)$$

where $1 - \tau$ captures the correlation among the terms θ_{sd}^i , $d \neq s$. The probability of migrating to $d \neq s$ reads as

$$p_d = \frac{e^{V_{sd}/\tau} \left(\sum_{d \neq s} e^{V_{sd}/\tau} \right)^{\tau-1}}{e^{V_{ss}} + \left(\sum_{d \neq s} e^{V_{sd}/\tau} \right)^\tau}. \quad (6)$$

Thus, the log of the relative probability of staying and migrating is given by

$$\log \left(\frac{p_s}{p_d} \right) = V_{ss} - \frac{V_{sd}}{\tau} + z_s, \quad (7)$$

where $z_s \equiv (1 - \tau) \log(\sum_{d \neq s} e^{V_{sd}/\tau})$. Let us approximate p_s/p_d by the observed number of stayers in s , n_s , relative to the number (flow) of migrants to $d \neq s$, mig_{sd} ; that is, $p_s/p_d \approx n_s/mig_{sd}$. Taking logs, we obtain

$$\log \left(\frac{p_s}{p_d} \right) = \log(n_s) - \log(mig_{sd}) + \epsilon_{sd}, \quad d \neq s, \quad (8)$$

where term ϵ_{sd} captures the error of approximating probabilities (Ortega and Peri, 2013). Combining the right-hand sides of (7) and (8) and adding time index t implies

$$\log(mig_{sd,t}) = \frac{V_{sd,t}}{\tau} + \lambda_{s,t} + \epsilon_{sd,t}, \quad (9)$$

where $\lambda_{s,t} \equiv \log(n_{s,t}) - V_{ss,t} - z_{s,t}$ is captured with time-dependent source-country dummies. Let the observable utility component $V_{sd,t}$ of a migrant from s to d in period t additively depend on bilateral (StD or DtS) trust, the difference in the log of per capita income across countries, time-invariant differences between s and d , and

time-varying characteristics of the destination country captured by a time-dependent destination-country fixed effect.²⁷ We do not simultaneously include StD trust and DtS trust measures in the estimated equation because they turn out being highly correlated. Our theoretical considerations then suggest the following two specifications:

$$\log(mig_{sd,t}) = \alpha_0 + \alpha_1 trust_{sd,t} + \alpha_2 \Delta GDP_{sd,t} + \mathbf{X}'_{sd} \gamma + \lambda_{d,t} + \lambda_{s,t} + \epsilon_{sd,t}, \quad (10)$$

$$\log(mig_{sd,t}) = \beta_0 + \beta_1 trust_{ds,t} + \beta_2 \Delta GDP_{sd,t} + \mathbf{X}'_{sd} \rho + \lambda_{d,t} + \lambda_{s,t} + e_{sd,t}, \quad (11)$$

where the dependent variable, denoted by $\log(mig_{sd,t})$, is the natural logarithm of the (gross) immigration flows from country-of-origin s to country-of-destination d in period t , $trust_{sd,t}$ and $trust_{ds,t}$ stand for the StD and DtS trust observed in year t , respectively, and $\Delta GDP_{sd,t}$ measures the percentage difference in the gross domestic product (GDP) per capita of two countries. We use this variable as a proxy for the wage differential between a country-pair which we suspect to affect international labor migration. \mathbf{X}'_{sd} is a vector of bilateral time-invariant variables, $\lambda_{s,t}$ and $\lambda_{d,t}$ are country-year fixed effects, and $\epsilon_{sd,t}$ and $e_{sd,t}$ are mean-zero random variables.

To estimate these specifications, we use for the dependent variable data on immigration flows collected by Ortega and Peri (2009, 2011). They merged and harmonized data sets gathered by Mayda (2010), the United Nations, and the OECD (International Migration Database) to establish an unbalanced panel of annual data on bilateral gross immigration flows into 30 OECD countries from 1946 to 2008. This unique dataset details the legal entry of foreign citizens who wish to be residents in an OECD country. Consistency is ensured by verifying that immigrants are always defined on the same basis across the database for each destination country.²⁸ The other variables are identi-

²⁷Ortega and Peri (2013) do not allow for destination-country fixed effects to vary over time.

²⁸To complete the dataset, Ortega and Peri (2009, 2011) interpolate observations when the missing value is situated between two years for which the observations are available and compute the net immigration flows. They correct for the outflow of foreign citizens using the International Migration Database and the dataset on emigration stocks for the years 1990 and 2000 collected by Docquier, Lowell and Marfouk (2007). However, these net immigration flows are less precise than the gross flows and only have a limited coverage.

cal to the ones used for Tables 2 and 3; regarding geographical distance, we exclusively focus on the measure provided by Mayer and Zignago (2011).

4.2 Results

Panel B of Table 1 reports the summary statistics of the sample used to analyze the relationship between international migration and StD trust, and Panel C those to analyze the effect of international migration on DtS trust. The number of observations varies across panels because of missing data. We again focus on observations for European countries in the years for which we have data on bilateral trust.

4.2.1 Basic Estimates

The results from estimating equations (10) and (11) are reported in Panel A and Panel B of Table 5, respectively. The first three columns present standard OLS estimates. They suggest that a one percent increase in the difference in GDP per capita increases immigration flows on average by approximately two percent. This positive and significant effect is in line with the notion, typically supported by the data, that international wage differentials affect migration patterns. We also find that geographical distance between countries has a significant and negative effect on the dependent variables. Sharing the legal origin has a positive effect.

The main finding from columns (1)-(3) is the absence of a significant correlation between bilateral trust and immigration flows. In column (1) of Panel A, the coefficient on StD trust is positive but rather small and not significantly different from zero. In column (2), we include an indicator of the existing diaspora in the destination countries. Beine et al. (2011) showed that an increase in the past stock of migrants in a country raises migration flows, possibly because a larger diaspora reduces costs and risks migrants face when moving abroad. We capture such network effects by a proxy for the emigration stocks in 1960 as employed in Grossmann and Stadelmann (2013). This variable ensures a lag of at least 10 years that exists between the proxy and the

other observations included in our regression. It is itself significant and positive, as found in previous studies. Adding it decreases the coefficient of StD trust which is still statistically insignificant. We observe the same pattern when including religious similarity as control variable in column (3): it halves the coefficient of StD trust and slightly increases its standard error. The OLS estimates hence suggest that StD trust is not significantly related to international migration.

We next, again, apply the IV estimation proposed in GSZ and perform a sensitivity analysis to examine whether the IV results follow a similar pattern in the migration setting as they followed in the trade setting. Using the somatic distance measure as employed in GSZ and religious similarity as instruments, the coefficient on StD trust strongly increases compared to the OLS estimates and becomes significantly different from zero at the five percent level (column (4)). The employed instruments pass the Hansen J -test. The Kleibergen-Paap rk statistics suggest that they are relevant and strong. Nevertheless, like for Table 2, there are several reasons to regard the results in column (4) with caution. First, the IV estimate on StD trust is five times larger than the OLS counterpart. It suggests that an increase in StD trust of one standard deviation increases gross immigration flows on average by 66 percent, which is a surprisingly large effect in view of the OLS estimate. Second, there is again plenty of reason to believe that religious similarity may affect international migration not exclusively through the trust channel (see also Spring, 2014). It rather may shape institutional differences related to international labor mobility or be affected by migration flows itself, as these change the composition of the population in potentially many respects. Finally, the previous section suggests that the coefficient on bilateral trust might not be robust to the use of alternative measures of somatic distance as instruments.

To address these concerns, we first estimate an alternative specification which does not exclude the proxy for religious similarity as explanatory variable in the migration equation. Column (5) reports the results when we employ the indicator of somatic distance used in GSZ as sole instrumental variable. The IV coefficient on StD trust is similar in magnitude as in column (4) but it loses its significance. Column (6) re-

ports the results from estimating a reduced form equation analogously to eq. (3). It suggests that neither somatic distance nor religious similarity are partially correlated with international migration in the reduced form. This absence of correlation between the instrumental variables and the dependent variable as well as the insignificant coefficients found in columns (1)-(3) raise doubts on the hypothesis that StD trust affects the decision of potential migrants to move abroad.

According to Panel B of Table 5, the relationship between DtS trust and international migration is similar to the one observed in Panel A between StD trust and international migration. In columns (1)-(3), the OLS estimates of the coefficient of DtS trust are positive but not statistically significant. Instrumenting DtS trust with indicators of religious similarity and somatic distance in column (4) yields significant results, here at the ten percent level, that are more than five times larger than their OLS counterparts. They suggest that an increase of DtS trust of one standard deviation increases immigration flows on average by 56 percent. However, according to column (5), when including religious similarity at the second stage rather than using it as an instrument for DtS trust, the coefficient on DtS trust becomes insignificant. Moreover, also similar to Panel A, column (6) shows that the correlation between the instruments and international migration is again insignificant when estimated in the reduced form.

4.2.2 (Lack of) Robustness

In view of these inconclusive results with respect to the relationship between bilateral trust and international migration, we again exploit the fact that there is a large degree of freedom in defining the concept of somatic distance and estimate regressions (10) and (11) with the same covariates and the same sample again, only changing the somatic distance indicator which we use as instrument. The results of this analysis are reported in Table 6 for the relationship between international migration and StD trust, and in Table 7 for its relationship with DtS trust.

In columns (1) of Panels B, C and D of Table 6 we restate the most important

results of Panel A in Table 5 (columns (6), (4) and (5), respectively). Panel A of Table 6 additionally reports the first-stage coefficients on somatic distance and religious similarity when we regress StD trust on all included and excluded exogenous variables. As in the case where international trade flows are the dependent variable at the second stage, we observe that the various measures of somatic distance are equally significant at the first stage and that the coefficients are similar across the different columns. However, none of these indicators are correlated with international migration in the reduced form equation (Panel B).

Panel C reports second-stage results for the case where the eight measures of somatic distance are used as instruments jointly with religious similarity. Whereas second-stage estimates for the coefficients on StD trust are significant in columns (1), (2), (7) and (8), they are insignificant in the other columns. Given the particularly questionable validity of religious similarity as instrumental variable for bilateral trust, in Panel D, we report the trust coefficients when instrumenting StD trust solely with the measures of somatic distance (again not excluding religious similarity in the second stage estimates). Consistent with the results found in Panel B, none of the estimations yield statistically significant coefficients and some even have a negative sign.

Regarding the effect of DtS trust on migration, Table 7 provides a sensitivity analysis of the results in Panel B of Table 5. Column (1) of Panels B, C and D of Table 7 restate the most important results. According to Panel A of Table 7, all indicators of somatic distance significantly affect DtS trust at the five percent level. However, again, none of them are correlated with international migration in the reduced form equation (Panel B). Panel C reports the IV estimates when using somatic distance and religious similarity as instruments for DtS trust. Analogously to the results found in Panel C of Table 6, we see that the tests suggest that the instruments are relevant and exogenous. Moreover, the coefficients on instrumented DtS trust are sometimes significant at the second stage. However, according to Panel A, as repeatedly mentioned, the indicator of religious similarity is not significantly correlated with DtS trust and thus a potentially problematic instrument. Panel D of Table 7 shows the second-stage estimates

when instrumenting DtS trust with the various measures of somatic distance as sole instruments. Consistent with the reduced form results in Panel B, the coefficients on instrumented DtS trust are all statistically insignificant and, analogously to Panel D of Table 6, sometimes even negative.

4.2.3 Discussion of Results

Overall, the results in Tables 5 to 7 suggest that neither StD nor DtS trust robustly play a role for international migration flows. In particular, all measures of somatic distance are irrelevant in the reduced form estimates and the instrumented trust measures are insignificant if we do not exclude religious similarity at the second stage. Thus, analogously to international trade, we conclude that there is no convincing evidence for bilateral trust and/or cultural proximity as measured by religious similarity and somatic distance being important determinants of international migration.

5 Conclusion

This paper has examined the causal impact of average bilateral trust across countries on bilateral international trade and migration flows. We first followed the identification strategy of GSZ by using religious similarity and somatic distance between country-pairs as instrumental variables for bilateral trust to capture the exogenous variation of the trust measure. We added a sensitivity analysis to GSZ when investigating the determinants of international trade and, for the first time, investigated the role of cultural proximity apart from common language measures in the context of international migration. We constructed and employed as instruments for bilateral trust seven different indicators of somatic distance (based on different weighting of physical attributes) in addition to the one by GSZ. Our alternative somatic distance indicators appear equally valid and strong at the first stage of the 2SLS estimates. By contrast to GSZ, we focussed on an IV strategy where religious similarity is not excluded at the second stage. We find that instrumented DtS trust has a significant effect in the trade regression

only if employing the somatic distance indicator used in GSZ. In the migration regression, neither coefficients of StD trust nor DtS trust are ever significant. Moreover, we examined reduced form estimates in which trade and migration are regressed on all explanatory variables as well as on somatic distance and religious similarity. Reduced form estimates of coefficients on religious similarity and the somatic distance indicators are insignificantly different from zero except in the context of trade when we use the somatic distance indicator by GSZ. In sum, whereas GSZ concluded that their "results suggest that cultural relationships affect trust and are an important omitted factor in international trade" (p. 1098), we found no robust evidence for the hypotheses that bilateral trust across countries and/or cultural proximity apart from language affect international trade or migration patterns.

Of course, it is possible that the measure of average trust which citizens from one country have towards those from another country, as elicited from the employed Eurobarometer surveys, is not an appropriate measure of bilateral trust in the context of trade and migration. Moreover, we do not satisfactorily solve the potential validity problems of the employed instruments. Future research shall thus attempt to develop and apply alternative identification strategies to GSZ. A fruitful guidance is the quasi-experimental approach in Egger and Lassmann (2013), which employs data from the trade of language regions in Switzerland with neighboring countries, to deal better with within-country heterogeneity and to draw inference on causal effects more convincingly.

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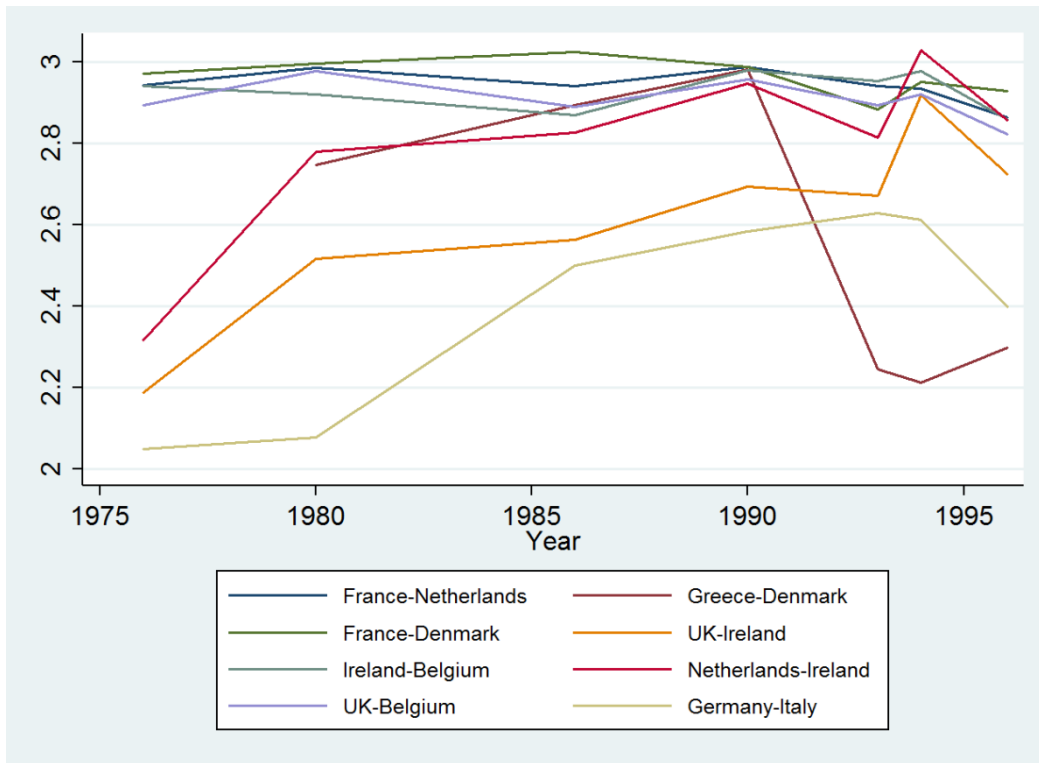
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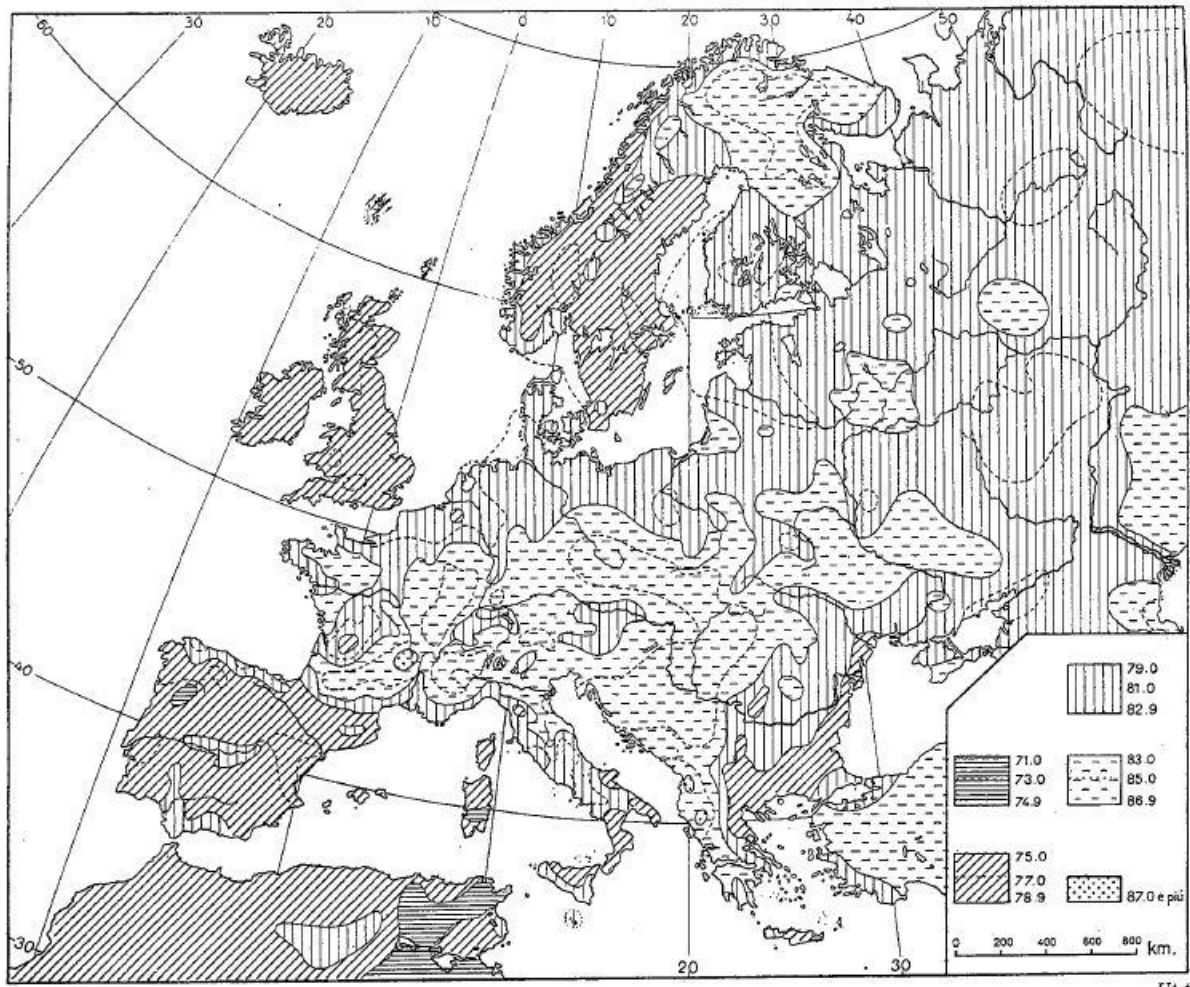
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Figure 1 Bilateral trust over time in examples of country-pairs



Notes: This figure presents bilateral trust between country-pairs over time with the highest and lowest standard deviations, given that bilateral trust was at least observed over six years (Eurobarometer Surveys).

Figure 2 Distribution of the average cephalic index in Europe



Source : Biasutti, R. (1959), p. 48

Table 1
Descriptive statistics

Variable	Mean	Median	Std. dev.	Min	Max	N
Panel A International trade and Destination-to-Source trust						
Export flows (from source to destination, log)	14.56	14.63	1.64	9.57	17.88	679
DtS trust	2.73	2.72	0.28	1.99	3.65	679
Press coverage	0.04	0.02	0.05	0.00	0.31	679
Weighted distance (log)	7.00	7.06	0.55	5.08	8.13	679
Distance between capitals (log)	6.90	7.07	0.69	5.15	8.12	679
Transportation costs (log)	5.19	5.18	0.07	5.08	5.42	679
Common border	0.20	0.00	0.40	0.00	1.00	679
Common language	0.08	0.00	0.28	0.00	1.00	679
Same legal origin	0.31	0.00	0.46	0.00	1.00	679
Linguistic common roots	0.63	0.67	0.20	0.00	1.00	679
Religious similarity	0.34	0.33	0.25	0.00	0.87	679
<i>Somatic distance</i>						
<i>Available in Guiso et al. (2008a), sum of the absolute differences in the following prevailing traits</i>						
- hair color, height, cephalic index, skin	2.93	3.00	1.37	0.00	6.00	679
- hair color, height, skin	2.05	2.00	1.29	0.00	5.00	679
- hair color, height, cephalic index	2.48	2.00	1.20	0.00	5.00	679
- hair color, height	1.60	2.00	1.08	0.00	4.00	679
<i>Own elaboration, following the instructions in Guiso et al. (2008a)</i>						
- hair color, height, cephalic index	2.35	2.00	1.21	0.00	5.00	679
- hair color, height	1.48	2.00	0.96	0.00	3.00	679
<i>Own elaboration, allowing for a country to fall into two categories of</i>						
- hair color, height, cephalic index	2.15	2.00	1.15	0.00	4.50	679
- hair color, height	1.47	1.50	1.04	0.00	3.00	679
Panel B International migration and Source-to-Destination trust						
Gross immigration flows (log)	6.84	6.84	1.87	2.08	12.13	450
StD trust	2.79	2.79	0.30	1.99	3.65	450
Diff. in GDP p.c. (%)	0.34	0.18	0.66	-0.62	3.55	450
Common language	0.09	0.00	0.28	0.00	1.00	450
Weighted distance (log)	6.91	7.01	0.62	5.08	8.13	450
Common border	0.21	0.00	0.41	0.00	1.00	450
Same legal origin	0.32	0.00	0.47	0.00	1.00	450
Migration stock 1960 (log)	4.86	0.00	5.56	0.00	13.50	450
Religious similarity	0.31	0.32	0.24	0.00	0.87	450
<i>Somatic distance</i>						
<i>Available from Guiso et al. (2008a), sum of the absolute differences in the following prevailing traits</i>						
- hair color, height, cephalic index, skin	2.87	3.00	1.40	0.00	6.00	450
- hair color, height, skin	2.11	2.00	1.34	0.00	5.00	450
- hair color, height, cephalic index	2.43	3.00	1.18	0.00	5.00	450
- hair color, height	1.67	2.00	1.09	0.00	4.00	450
<i>Own elaboration, following the instructions in Guiso et al. (2008a)</i>						
- hair color, height, cephalic index	2.35	2.00	1.20	0.00	5.00	450
- hair color, height	1.56	2.00	0.97	0.00	3.00	450
<i>Own elaboration, allowing for a country to fall into two categories of</i>						
- hair color, height, cephalic index	2.10	2.00	1.13	0.00	4.50	450
- hair color, height	1.51	1.50	1.03	0.00	3.00	450

Table 1 *continued*

Variable	Mean	Median	Std. dev.	Min	Max	N
<i>Panel C International migration and Destination-to-Source trust</i>						
Gross immigration flows (log)	6.84	6.82	1.87	2.08	12.13	463
DtS trust	2.76	2.75	0.30	2.04	3.65	463
Diff. in GDP p.c. (%)	0.38	0.19	0.70	-0.62	3.55	463
Common language	0.09	0.00	0.28	0.00	1.00	463
Weighted distance (log)	6.91	7.01	0.62	5.08	8.13	463
Common border	0.21	0.00	0.40	0.00	1.00	463
Same legal origin	0.33	0.00	0.47	0.00	1.00	463
Migration stock 1960 (log)	5.04	0.00	5.57	0.00	13.50	463
Religious similarity	0.32	0.32	0.24	0.00	0.87	463
<i>Somatic distance</i>						
<i>Available from Guiso et al. (2008a), sum of the absolute differences in the following prevailing traits</i>						
- hair color, height, cephalic index, skin	2.88	3.00	1.40	0.00	6.00	463
- hair color, height, skin	2.12	2.00	1.34	0.00	5.00	463
- hair color, height, cephalic index	2.44	3.00	1.19	0.00	5.00	463
- hair color, height	1.68	2.00	1.09	0.00	4.00	463
<i>Own elaboration, following the instructions in Guiso et al. (2008a)</i>						
- hair color, height, cephalic index	2.37	2.00	1.20	0.00	5.00	463
- hair color, height	1.57	2.00	0.97	0.00	3.00	463
<i>Own elaboration, allowing for a country to fall into two categories of</i>						
- hair color, height, cephalic index	2.11	2.00	1.14	0.00	4.50	463
- hair color, height	1.52	1.50	1.03	0.00	3.00	463

Notes. This table presents the descriptive statistics of the sample used to estimate the effect of DtS trust on commodity export flows (Panel A), the impact of StD trust on gross immigration flows (Panel B), and the effect of DtS trust on gross immigration flows (Panel C). All samples include observations for European countries over the years for which we have trust data (1970, 1976, 1980, 1983, 1986, 1990, 1991, 1993, 1994, and 1996). The number of observations varies across the panels because of missing data.

Table 2
Determinants of international trade (instruments as in GSZ)

	OLS (1)	OLS (2)	OLS (3)	IV-SR (4)	IV-S (5)	OLS-RF (6)
Panel A: Distance between capital cities						
DtS trust	0.37* (0.21)	0.29 (0.20)	0.28 (0.20)	1.27*** (0.38)	1.50*** (0.50)	
Common language	0.45** (0.21)	0.26 (0.16)	0.25 (0.17)	0.15 (0.15)	0.17 (0.15)	0.30* (0.16)
Distance between capitals (log)	-0.05 (0.19)	-0.26 (0.18)	-0.24 (0.18)	-0.32* (0.16)	-0.30* (0.17)	-0.22 (0.17)
Common border	0.49*** (0.14)	0.42*** (0.12)	0.41*** (0.12)	0.37*** (0.12)	0.38*** (0.12)	0.34*** (0.12)
Press coverage	1.37 (1.12)	0.57 (1.11)	0.66 (1.12)	1.57 (0.96)	1.21 (1.05)	0.81 (1.17)
Transportation costs (log)	-4.41** (1.97)	-1.82 (1.90)	-1.82 (1.85)	-0.09 (1.65)	-0.43 (1.72)	-1.43 (1.82)
Same legal origin		0.45*** (0.14)	0.39** (0.15)	0.32** (0.14)	0.38** (0.16)	0.34** (0.15)
Linguistic common roots			0.25 (0.31)	0.17 (0.27)	0.11 (0.29)	0.12 (0.30)
Religious similarity					-0.19 (0.22)	0.05 (0.16)
Somatic distance used in GSZ						-0.09*** (0.03)
<i>Relevance</i>						
K-P <i>rk</i> LM Statistic (p-value)				17.91 (0.00)	16.5 (0.00)	
<i>Weak Identification</i>						
K-P <i>rk</i> Wald Statistic				17.05	26.03	
<i>Over-identification</i>						
Hansen <i>J</i> -Stat (p-value)				0.780 (0.38)		
Panel B: Population-weighted distance measure						
DtS trust	0.27 (0.18)	0.13 (0.17)	0.13 (0.17)	0.85** (0.35)	0.96** (0.47)	
Common language	0.38** (0.16)	0.24** (0.11)	0.25** (0.12)	0.25** (0.10)	0.24** (0.10)	0.30** (0.12)
Weighted distance (log)	-0.88*** (0.25)	-1.03*** (0.22)	-1.04*** (0.23)	-0.94*** (0.24)	-0.91*** (0.25)	-0.99*** (0.23)
Common border	0.29*** (0.11)	0.24** (0.10)	0.24** (0.10)	0.25*** (0.09)	0.26*** (0.10)	0.21** (0.10)
Press coverage	0.13 (1.05)	-1.01 (0.95)	-1.06 (0.96)	-0.34 (0.89)	-0.42 (0.93)	-0.80 (0.98)
Transportation costs (log)	0.42 (1.91)	2.27 (1.66)	2.31 (1.68)	2.48 (1.57)	2.27 (1.68)	2.49 (1.66)
Same legal origin		0.45*** (0.10)	0.47*** (0.13)	0.41*** (0.13)	0.42*** (0.13)	0.42*** (0.13)
Linguistic common roots			-0.07 (0.32)	-0.11 (0.28)	-0.11 (0.28)	-0.15 (0.31)
Religious similarity					-0.06 (0.19)	0.11 (0.14)
Somatic distance used in GSZ						-0.06* (0.03)
<i>Relevance</i>						
K-P <i>rk</i> LM Statistic (p-value)				16.95 (0.00)	14.65 (0.00)	
<i>Weak Identification</i>						
K-P <i>rk</i> Wald Statistic				16.93	22.99	
<i>Over-identification</i>						
Hansen <i>J</i> -Stat (p-value)				0.13 (0.72)		
Observations	679	679	679	679	679	679
R-squared	0.97	0.97	0.98			0.97

Notes. The dependent variable is the natural logarithm of aggregated export flows from country *s* to country *d* (UNComtrade). DtS *Trust* measures the average trust that citizens in importing country *d* grant citizens in exporting country *s* (Eurobarometer Surveys). Somatic distance is the measure used in GSZ which sums the absolute value of the difference in the hair color, height, and cephalic index. All equations include source- and destination-year dummies. The Kleibergen-Paap *rk* LM and Wald statistics are the robust statistics in case of non-i.i.d. disturbances. Robust standard errors are reported in parentheses, that are clustered at the country-pair. Coefficients are statistically different from zero at the ***1%, **5%, and *10% level. Columns (1) to (3) present OLS estimates; columns (4) and (5) present IV estimates with somatic distance and religious similarity as instruments (IV-SR) and with somatic distance as only instrument (IV-S), respectively. RF (column (6)) refers to the reduced form of the dependent variable (see appendix).

Table 3
Trade: Instrumenting DtS trust with alternative measures of somatic distance

	Guiso et al. (2008a)				Replication		Pop. Density	
	HHC (1)	HH (2)	HHCS (3)	HHS (4)	HHC (5)	HH (6)	HHC (7)	HH (8)
Panel A: First-stage regression								
<i>Dependent variable: Destination-to-Source trust</i>								
Somatic distance	-0.06*** (0.01)	-0.09*** (0.02)	-0.06*** (0.01)	-0.07*** (0.01)	-0.05*** (0.01)	-0.09*** (0.02)	-0.05*** (0.01)	-0.08*** (0.02)
Religious similarity	0.18*** (0.06)	0.15** (0.06)	0.20*** (0.06)	0.18*** (0.06)	0.17*** (0.07)	0.14** (0.06)	0.15** (0.06)	0.15** (0.06)
Panel B: Reduced form equation of international trade								
<i>Dependent variable: aggregated export flows</i>								
Somatic distance	-0.06* (0.03)	-0.06 (0.05)	-0.02 (0.03)	-0.01 (0.04)	0.01 (0.04)	-0.04 (0.05)	-0.03 (0.03)	-0.06 (0.05)
Religious similarity	0.11 (0.14)	0.09 (0.14)	0.12 (0.14)	0.11 (0.14)	0.12 (0.14)	0.09 (0.15)	0.10 (0.14)	0.09 (0.14)
Panel C: Second-stage estimates using somatic distance and religious similarity as instruments								
<i>Dependent variable: aggregated export flows</i>								
DtS trust	0.85** (0.35)	0.69** (0.34)	0.46 (0.31)	0.35 (0.35)	0.20 (0.36)	0.55 (0.36)	0.55 (0.37)	0.69* (0.36)
<i>Relevance</i>								
K-P <i>rk</i> LM Statistic (p-value)	16.95 (0.00)	23.58 (0.00)	19.89 (0.00)	23.33 (0.00)	18.46 (0.00)	20.40 (0.00)	15.27 (0.00)	20.43 (0.00)
<i>Weak Identification</i>								
K-P <i>rk</i> Wald Statistic	16.93	21.27	19.95	21.30	13.48	21.58	15.74	20.80
<i>Exogeneity</i>								
Hansen <i>J</i> -Stat (p-value)	0.13 (0.72)	0.02 (0.90)	0.06 (0.80)	0.21 (0.65)	0.58 (0.45)	0.01 (0.91)	0.01 (0.91)	0.02 (0.90)
Panel D: Second-stage estimates using somatic distance as instrument								
<i>Dependent variable: aggregated export flows</i>								
DtS trust	0.96** (0.47)	0.74 (0.51)	0.39 (0.44)	0.17 (0.52)	-0.17 (0.57)	0.49 (0.59)	0.50 (0.58)	0.75 (0.58)
<i>Relevance</i>								
K-P <i>rk</i> LM Statistic (p-value)	14.65 (0.00)	20.97 (0.00)	17.65 (0.00)	19.93 (0.00)	11.88 (0.00)	16.72 (0.00)	14.74 (0.00)	18.43 (0.00)
<i>Weak Identification</i>								
K-P <i>rk</i> Wald Statistic	22.99	28.22	27.99	30.45	15.20	27.60	16.50	24.89
<i>Observations</i>	679	679	679	679	679	679	679	679

Notes. This table presents the coefficients of estimating the first-stage regression (Panel A), the reduced form equation of the dependent variable (Panel B), the IV coefficients of estimating equation (1) when DtS trust is instrumented with both variables of cultural proximity of country-pairs (Panel C), and the IV estimates when instrumenting DtS trust only with a measure of somatic distance (Panel D). In each column, we use an alternative indicator of somatic distance as instrument for bilateral trust. In columns (1) to (4) we use the indicators made available by Guiso et al. (2008a), in columns (5) and (6) the indicators elaborated following the instructions given by them, and in columns (7) and (8) the measures that take the population density into account. The columns are labeled with the letters *H*, *C*, and *S*: *H* stands for height and hair, *C* for cephalic index, and *S* for skin. The coefficients of the control variables (the same as in Table 2) are not reported. Cluster-robust standard errors are reported in parentheses and the coefficients are statistically different from zero at the ***1%, **5%, and *10% level.

Table 4
Trade: Second-stage results when instrumenting lagged DtS trust with various measures of somatic distance

	Guiso et al. (2008a)				Replication		Pop. Density	
	HHC (1)	HH (2)	HHCS (3)	HHS (4)	HHC (5)	HH (6)	HHC (7)	HH (8)
Panel A: DtS Trust lagged two years								
DtS trust	0.79* (0.45)	0.63 (0.51)	0.25 (0.44)	0.08 (0.53)	-0.35 (0.58)	0.40 (0.60)	0.31 (0.58)	0.60 (0.59)
<i>Relevance</i>								
K-P rk LM Statistic (p-value)	14.65 (0.00)	20.97 (0.00)	17.65 (0.00)	19.93 (0.00)	11.88 (0.00)	16.72 (0.00)	14.74 (0.00)	18.43 (0.00)
<i>Weak Identification</i>								
K-P rk Wald Statistic	22.99	28.22	27.99	30.45	15.20	27.60	16.50	24.89
Panel B: DtS Trust lagged four years								
DtS trust	0.80* (0.44)	0.72 (0.51)	0.31 (0.43)	0.21 (0.53)	-0.31 (0.56)	0.58 (0.60)	0.39 (0.58)	0.79 (0.60)
<i>Relevance</i>								
K-P rk LM Statistic (p-value)	14.65 (0.00)	20.97 (0.00)	17.65 (0.00)	19.93 (0.00)	11.88 (0.00)	16.72 (0.00)	14.74 (0.00)	18.43 (0.00)
<i>Weak Identification</i>								
K-P rk Wald Statistic	22.99	28.22	27.99	30.45	15.2	27.6	16.5	24.89
<i>Observations</i>	679	679	679	679	679	679	679	679

Notes. This table presents the coefficients of regressing international trade on bilateral trust lagged by two years (Panel A) and by four years (Panel B). In each column, we use an alternative indicator of somatic distance as instrument for bilateral trust. In columns (1) to (4) we use the indicators made available by Guiso et al. (2008a), in columns (5) and (6) the indicators elaborated following the instructions given by them, and in columns (7) and (8) the measures that take the population density into account. The columns are labeled with the letters *H*, *C*, and *S*: *H* stands for height and hair, *C* for cephalic index, and *S* for skin. The coefficients of the control variables (the same as in Table 2) are not reported. All estimations include control variables and full sets of source- and country-year fixed effects. Cluster-robust standard errors are reported in parentheses and the coefficients are statistically different from zero at the ***1%, **5%, and *10% level.

Table 5
Determinants of international migration

	OLS (1)	OLS (2)	OLS (3)	IV-SR (4)	IV-S (5)	RF (6)
<i>Panel A Source-to-Destination trust</i>						
Trust (StD)	0.68 (0.59)	0.43 (0.60)	0.23 (0.65)	2.22** (0.93)	2.40 (1.51)	
Diff. in GDP p.c. (%)	1.66* (0.86)	2.07** (0.87)	1.93** (0.84)	2.50** (0.96)	2.55** (1.02)	2.01** (0.84)
Common language	-0.24 (0.34)	-0.36 (0.33)	-0.27 (0.33)	-0.41 (0.28)	-0.42 (0.29)	-0.25 (0.35)
Weighted distance (log)	-0.70** (0.31)	-0.57* (0.30)	-0.55* (0.30)	-0.41 (0.27)	-0.41 (0.29)	-0.47 (0.30)
Common border	0.00 (0.34)	0.26 (0.38)	0.21 (0.38)	0.30 (0.30)	0.30 (0.29)	0.23 (0.37)
Same legal origin	0.61*** (0.24)	0.69*** (0.23)	0.52* (0.27)	0.54*** (0.20)	0.56** (0.22)	0.53** (0.26)
Mig. stock 1960 (log)		0.33* (0.18)	0.30* (0.17)	0.24 (0.15)	0.23 (0.16)	0.32* (0.17)
Religious similarity			0.50 (0.46)		-0.08 (0.56)	0.43 (0.39)
Somatic distance used in GSZ						-0.09 (0.07)
<i>Relevance</i>						
K-P <i>rk</i> LM Statistic (p-value)				21.61 (0.00)	13.99 (0.00)	
<i>Weak Identification</i>						
K-P <i>rk</i> Wald Statistic				14.41	12.37	
<i>Over-identification</i>						
Hansen <i>J</i> -Stat (p-value)				0.02 (0.88)		
<i>Panel B Destination-to-Source Trust</i>						
Trust (DtS)	0.62 (0.57)	0.33 (0.60)	0.22 (0.62)	1.78* (0.99)	1.53 (1.02)	
Diff. in GDP p.c. (%)	1.64* (0.84)	2.05** (0.84)	1.97** (0.82)	2.01** (0.78)	2.05*** (0.76)	2.10** (0.81)
Common language	-0.15 (0.35)	-0.30 (0.34)	-0.22 (0.34)	-0.18 (0.29)	-0.19 (0.29)	-0.22 (0.36)
Weighted distance (log)	-0.73** (0.31)	-0.61** (0.30)	-0.58* (0.29)	-0.51* (0.27)	-0.52** (0.26)	-0.50 (0.31)
Common border	-0.04 (0.33)	0.23 (0.39)	0.19 (0.39)	0.15 (0.28)	0.14 (0.29)	0.22 (0.37)
Same legal origin	0.57** (0.25)	0.65*** (0.23)	0.49* (0.27)	0.51** (0.21)	0.47** (0.22)	0.51* (0.26)
Mig. stock 1960 (log)		0.31* (0.17)	0.28 (0.18)	0.18 (0.16)	0.20 (0.16)	0.30* (0.17)
Religious similarity			0.46 (0.39)		0.25 (0.33)	0.36 (0.39)
Somatic distance used in GSZ						-0.08 (0.06)
<i>Relevance</i>						
K-P <i>rk</i> LM Statistic (p-value)				13.93 (0.00)	11.09 (0.00)	
<i>Weak Identification</i>						
K-P <i>rk</i> Wald Statistic				15.05	20.49	
<i>Over-identification</i>						
Hansen <i>J</i> -Stat (p-value)				0.60 (0.44)		
Observations	463	463	463	463	463	463
R-squared	0.89	0.89	0.89			0.90

Notes. The dependent variable is the natural logarithm of the migration flows from country *s* to country *d* (Ortega and Peri, 2009, 2011). Trust (StD) measures the average trust that citizens in country *s* grant citizens in country *d*, and Trust (DtS) is the reciprocal trust (Eurobarometer Surveys). Somatic distance is the measure used in GSZ which sums the absolute value on the difference in the hair color, height, and cephalic index. All equations include source- and destination-year dummies. Robust standard errors are reported in parentheses, which are clustered at the country-pair. Coefficients are statistically different from zero at the ***1%, **5%, and *10% level. Columns (1) - (3) present OLS estimates; columns (4) and (5) present IV estimates with somatic distance and religious similarity as instruments (IV-SR) and with somatic distance as only instrument (IV-S), respectively. RF (column (6)) refers to the reduced form equation of the dependent variables (see appendix).

Table 6
Migration: Instrumenting StD Trust with alternative measures of somatic distance

	Guiso et al. (2008a)				Replication		Pop. Density	
	HHC (1)	HH (2)	HHCS (3)	HHS (4)	HHC (5)	HH (6)	HHC (7)	HH (8)
Panel A: First-stage regression								
<i>Dependent variable: Source-to-Destination trust</i>								
Somatic distance	-0.04*** (0.01)	-0.06*** (0.01)	-0.04*** (0.01)	-0.05*** (0.01)	-0.03** (0.01)	-0.06*** (0.01)	-0.04*** (0.01)	-0.06*** (0.01)
Religious similarity	0.21*** (0.07)	0.18*** (0.06)	0.21*** (0.07)	0.18*** (0.06)	0.21*** (0.08)	0.16** (0.07)	0.20*** (0.07)	0.17** (0.07)
Panel B: Reduced form equation of international migration								
<i>Dependent variable: international immigration flows</i>								
Somatic distance	-0.09 (0.07)	-0.09 (0.08)	0.01 (0.06)	0.03 (0.08)	0.01 (0.07)	-0.02 (0.10)	-0.08 (0.07)	-0.07 (0.09)
Religious similarity	0.43 (0.39)	0.41 (0.40)	0.58 (0.43)	0.60 (0.45)	0.58 (0.45)	0.53 (0.46)	0.42 (0.40)	0.44 (0.41)
Panel C: Second-stage estimates using somatic distance and religious similarity as instruments								
<i>Dependent variable: international immigration flows</i>								
StD trust	2.22** (0.93)	1.84** (0.80)	0.95 (0.83)	0.83 (0.79)	1.27 (0.85)	1.25 (0.81)	2.00** (0.89)	1.71* (0.82)
<i>Relevance</i>								
K-P <i>rk</i> LM Statistic (p-value)	21.61 (0.00)	25.88 (0.00)	24.39 (0.00)	26.94 (0.00)	21.68 (0.00)	24.99 (0.00)	20.80 (0.00)	24.69 (0.00)
<i>Weak Identification</i>								
K-P <i>rk</i> Wald Statistic	14.41	16.10	18.64	19.19	12.54	17.59	14.74	17.68
<i>Exogeneity</i>								
Hansen <i>J</i> -Stat (p-value)	0.02 (0.88)	0.07 (0.80)	1.79 (0.18)	2.12 (0.15)	0.90 (0.34)	0.90 (0.34)	0.01 (0.93)	0.17 (0.68)
Panel D: Second-stage estimates using somatic distance as instrument								
<i>Dependent variable: international immigration flows</i>								
StD trust	2.40 (1.51)	1.60 (1.23)	-0.33 (1.30)	-0.47 (1.23)	-0.36 (1.79)	0.24 (1.36)	1.89 (1.50)	1.28 (1.33)
<i>Relevance</i>								
K-P <i>rk</i> LM Statistic (p-value)	13.99 (0.00)	22.52 (0.00)	20.47 (0.00)	23.71 (0.00)	8.23 (0.00)	17.72 (0.00)	17.50 (0.00)	19.50 (0.00)
<i>Weak Identification</i>								
K-P <i>rk</i> Wald Statistic	12.37	18.11	19.65	23.80	5.54	18.62	12.85	19.30
Observations	450	450	450	450	450	450	450	450

Notes. This table presents the coefficients of estimating the first-stage regression (Panel A), the reduced form equation of the dependent variable (Panel B), the IV coefficients of estimating equation (3) when StD trust is instrumented with both variables of cultural proximity of country-pairs (Panel C), and the IV estimates when instrumenting StD trust only with a measure of somatic distance (Panel D). In each column, we use an alternative indicator of somatic distance as instrument for bilateral trust. In columns (1) to (4) we use the indicators made available by GSZ, in columns (5) and (6) the indicators elaborated following the instructions given by Guiso et al. (2008a), and in columns (7) and (8) the measures that take the population density into account. The columns are labeled with the letters *H*, *C*, and *S*: *H* stands for height and hair, *C* for cephalic index, and *S* for skin. The coefficients of the control variables (the same as in Table 2) are not reported. Cluster-robust standard errors are reported in parentheses and the coefficients are statistically different from zero at the ***1%, **5%, and *10% level.

Table 7
Migration: Instrumenting DtS trust with alternative measures of somatic distance

	Guiso et al. (2009)				Replication		Pop. Density	
	HHC (1)	HH (2)	HHCS (3)	HHS (4)	HHC (5)	HH (6)	HHC (7)	HH (8)
Panel A: First-stage regression								
<i>Dependent variable: Destination-to-Source trust</i>								
Somatic distance	-0.06*** (0.01)	-0.06*** (0.01)	-0.05*** (0.01)	-0.05*** (0.01)	-0.05*** (0.01)	-0.06*** (0.02)	-0.06*** (0.01)	-0.05*** (0.01)
Religious similarity	0.07 (0.07)	0.06 (0.07)	0.08 (0.07)	0.07 (0.07)	0.08 (0.08)	0.06 (0.08)	0.06 (0.07)	0.06 (0.07)
Panel B: Reduced form equation of international migration								
<i>Dependent variable: international immigration flows</i>								
Somatic distance	-0.08 (0.06)	-0.08 (0.08)	0.02 (0.06)	0.03 (0.08)	0.01 (0.07)	-0.00 (0.10)	-0.08 (0.07)	-0.06 (0.08)
Religious similarity	0.36 (0.39)	0.36 (0.40)	0.52 (0.42)	0.55 (0.44)	0.51 (0.45)	0.49 (0.46)	0.35 (0.39)	0.39 (0.41)
Panel C: Second-stage estimates using somatic distance and religious similarity as instruments								
<i>Dependent variable: international immigration flows</i>								
DtS trust	1.78* (0.99)	1.77* (1.06)	0.29 (0.89)	0.39 (1.02)	0.77 (0.98)	1.13 (1.19)	1.64* (1.00)	1.63 (1.17)
<i>Relevance</i>								
K-P <i>rk</i> LM Statistic (p-value)	13.93 (0.00)	15.21 (0.00)	13.88 (0.00)	14.52 (0.00)	13.15 (0.00)	11.70 (0.00)	15.97 (0.00)	13.97 (0.00)
<i>Weak Identification</i>								
K-P <i>rk</i> Wald Statistic	15.05	11.37	14.19	10.10	13.23	8.62	14.73	10.10
<i>Exogeneity</i>								
Hansen <i>J</i> -Stat (p-value)	0.60 (0.44)	0.65 (0.42)	2.50 (0.11)	2.48 (0.12)	1.88 (0.17)	1.59 (0.21)	0.74 (0.39)	0.88 (0.35)
Panel D: Second-stage estimates using somatic distance as instrument								
<i>Dependent variable: international immigration flows</i>								
DtS trust	1.53 (1.02)	1.39 (1.16)	-0.37 (1.03)	-0.65 (1.29)	-0.29 (1.29)	0.05 (1.52)	1.40 (1.05)	1.06 (1.33)
<i>Relevance</i>								
K-P <i>rk</i> LM Statistic (p-value)	11.09 (0.00)	13.19 (0.00)	11.82 (0.00)	13.10 (0.00)	7.83 (0.01)	8.44 (0.00)	12.79 (0.00)	10.71 (0.00)
<i>Weak Identification</i>								
K-P <i>rk</i> Wald Statistic	20.49	17.22	22.35	16.22	14.61	10.73	23.49	14.29
Observations	463	463	463	463	463	463	463	463

Notes. This table presents the coefficients of estimating the first-stage regression (Panel A), the reduced form equation of the dependent variable (Panel B), the IV coefficients of estimating equation (4) when DtS trust is instrumented with both variables of cultural proximity of country-pairs (Panel C), and the IV estimates when instrumenting DtS trust only with a measure of somatic distance (Panel D). In each column, we use an alternative indicator of somatic distance as instrument for bilateral trust. In columns (1) to (4) we use the indicators made available by GSZ, in columns (5) and (6) the indicators elaborated following the instructions given by Guiso et al. (2008a), and in columns (7) and (8) the measures that take the population density into account. The columns are labeled with the letters *H*, *C*, and *S*: *H* stands for height and hair, *C* for cephalic index, and *S* for skin. The coefficients of the control variables (the same as in Table 2) are not reported. Cluster-robust standard errors are reported in parentheses and the coefficients are statistically different from zero at the ***1%, **5%, and *10% level.

Online Appendix to
Does Bilateral Trust Across Countries Really Affect
International Trade and Factor Mobility?

(not intended for publication)

Eva Spring and Volker Grossmann

September 2014

Table A.1
Correlation coefficients between time-invariant variables

	Guiso et al. (2008a)				Replication		Pop. Density		Melitz and Toubal (2014)				PC	DIST	LCR	RS	CLO	CB	TC
	HHCS	HHC	HHS	HH	HHC	HH	HHC	HH	COL	CSL	CNL	LP							
Somatic Distance																			
<i>Guiso et al. (2008a)</i>																			
HHCS	1																		
HHC	0.93	1																	
HHS	0.88	0.76	1																
HH	0.81	0.84	0.93	1															
<i>Replication</i>																			
HHC	0.73	0.72	0.65	0.65	1														
HH	0.73	0.71	0.80	0.81	0.82	1													
<i>Pop. Density</i>																			
HHC	0.78	0.74	0.76	0.74	0.79	0.81	1												
HH	0.77	0.73	0.87	0.88	0.76	0.92	0.88	1											
Explanatory Variables																			
Common Official Language (COL)	-0.33	-0.27	-0.28	-0.21	-0.30	-0.20	-0.24	-0.23	1										
Common Spoken Language (CSL)	-0.25	-0.03	-0.25	-0.01	-0.31	-0.17	-0.29	-0.22	0.47	1									
Common Native Language (CNL)	-0.26	-0.22	-0.16	-0.10	-0.29	-0.21	-0.18	-0.20	0.74	0.45	1								
Linguistic Proximity (LP)	-0.33	-0.21	-0.47	-0.38	-0.36	-0.47	-0.44	-0.50	-0.22	0.24	-0.34	1							
Press Coverage (PC)	-0.15	-0.10	-0.17	-0.12	-0.18	-0.21	-0.19	-0.18	0.35	0.16	0.49	-0.08	1						
Weighted Distance (DIST)	0.43	0.24	0.41	0.21	0.37	0.31	0.45	0.32	-0.53	-0.69	-0.42	-0.29	-0.67	1					
Linguistic Common Roots (LCR)	-0.44	-0.39	-0.50	-0.47	-0.45	-0.51	-0.48	-0.54	0.51	0.41	0.43	0.43	0.78	-0.59	1				
Religious Similarity (RS)	-0.27	-0.31	-0.35	-0.43	-0.22	-0.39	-0.22	-0.34	0.01	-0.09	-0.06	0.32	0.26	-0.15	0.33	1			
Common Legal Origin (CLO)	-0.41	-0.50	-0.38	-0.48	-0.35	-0.50	-0.37	-0.47	0.25	-0.16	0.35	-0.01	0.25	-0.10	0.44	0.32	1		
Common Border (CB)	-0.42	-0.39	-0.38	-0.35	-0.47	-0.36	-0.41	-0.35	0.58	0.30	0.46	0.06	0.50	-0.61	0.46	0.16	0.29	1	
Transportation Costs (TC)	0.31	0.15	0.32	0.16	0.21	0.26	0.35	0.24	-0.36	-0.50	-0.27	-0.31	-0.54	0.89	-0.50	-0.28	-0.13	-0.49	1

Table A.2
 Regressing linguistic common roots on bilateral variables, varying the somatic distance indicator

	Guiso et al. (2008a)				Replication		Pop. Density	
	HHCS	HHC	HHS	HH	HHC	HH	HHC	HH
Somatic distance	-0.00 (0.01)	-0.03*** (0.01)	-0.00 (0.00)	-0.02*** (0.01)	-0.02*** (0.01)	-0.04*** (0.01)	-0.02*** (0.01)	-0.05*** (0.01)
Common language	0.15*** (0.03)	0.15*** (0.02)	0.15*** (0.03)	0.15*** (0.03)	0.15*** (0.03)	0.16*** (0.03)	0.16*** (0.03)	0.16*** (0.02)
Weighted distance (log)	-0.23*** (0.03)	-0.20*** (0.03)	-0.23*** (0.03)	-0.20*** (0.03)	-0.20*** (0.03)	-0.19*** (0.03)	-0.19*** (0.03)	-0.17*** (0.03)
Religious similarity	0.16*** (0.02)	0.11*** (0.02)	0.16*** (0.02)	0.13*** (0.02)	0.14*** (0.02)	0.12*** (0.02)	0.15*** (0.02)	0.12*** (0.02)
Same legal origin	0.13*** (0.01)	0.11*** (0.01)	0.13*** (0.01)	0.12*** (0.01)	0.12*** (0.01)	0.10*** (0.01)	0.12*** (0.01)	0.09*** (0.01)
Common border	-0.03 (0.02)	-0.04** (0.02)	-0.02 (0.02)	-0.03 (0.02)	-0.04** (0.02)	-0.03* (0.02)	-0.03* (0.02)	-0.03* (0.02)
Transportation costs (log)	0.49*** (0.19)	0.31* (0.18)	0.51*** (0.19)	0.37** (0.18)	0.30 (0.19)	0.32* (0.18)	0.37** (0.18)	0.22 (0.18)
Press coverage	-0.17 (0.13)	-0.14 (0.13)	-0.19 (0.13)	-0.15 (0.13)	-0.16 (0.13)	-0.19 (0.13)	-0.15 (0.13)	-0.17 (0.12)
Observations	679	679	679	679	679	679	679	679
R-squared	0.55	0.57	0.55	0.56	0.56	0.57	0.56	0.58

The estimated standard errors reported in brackets are statistically different from zero at the ***1%, **5%, and *10% level.

Table A.3
DtS trust and international trade: LIML

	Guiso et al. (2008a)				Replication		Pop. Density	
	HHC (1)	HH (2)	HHCS (3)	HHS (4)	HHC (5)	HH (6)	HHC (7)	HH (8)
Panel A: Second-stage estimates using somatic distance and religious similarity as instruments								
<i>Dependent variable: aggregated export flows</i>								
DtS trust	0.86** (0.35)	0.71* (0.36)	0.44 (0.32)	0.28 (0.39)	0.10 (0.39)	0.53 (0.40)	0.54 (0.37)	0.71* (0.39)
Common language	0.25** (0.10)	0.25** (0.10)	0.25** (0.10)	0.25** (0.10)	0.25** (0.10)	0.25** (0.10)	0.25** (0.10)	0.25** (0.10)
Weighted distance (log)	-0.94*** (0.24)	-0.96*** (0.23)	-1.00*** (0.22)	-1.02*** (0.21)	-1.05*** (0.21)	-0.99*** (0.22)	-0.98*** (0.23)	-0.96*** (0.23)
Common border	0.25*** (0.09)	0.25*** (0.09)	0.24*** (0.09)	0.24*** (0.09)	0.24*** (0.09)	0.25*** (0.09)	0.25*** (0.09)	0.25*** (0.09)
Press coverage	-0.48 (0.97)	-0.60 (0.95)	-0.81 (0.89)	-0.94 (0.90)	-1.08 (0.88)	-0.74 (0.91)	-0.73 (0.94)	-0.59 (0.95)
Transportation costs (log)	2.45 (1.57)	2.42 (1.55)	2.37 (1.50)	2.34 (1.49)	2.31 (1.46)	2.39 (1.52)	2.39 (1.50)	2.42 (1.54)
Same legal origin	0.42*** (0.13)	0.43*** (0.13)	0.45*** (0.12)	0.46*** (0.12)	0.47*** (0.11)	0.44*** (0.12)	0.44*** (0.13)	0.43*** (0.13)
Linguistic common roots	-0.13 (0.28)	-0.12 (0.28)	-0.10 (0.27)	-0.08 (0.28)	-0.07 (0.28)	-0.10 (0.28)	-0.10 (0.28)	-0.12 (0.28)
<i>Relevance</i>								
K-P rk LM Statistic (p-value)	16.95 (0.00)	23.58 (0.00)	19.89 (0.00)	23.33 (0.00)	18.46 (0.00)	20.40 (0.00)	15.27 (0.00)	20.43 (0.00)
<i>Weak Identification</i>								
K-P rk Wald Statistic	16.93	21.27	19.95	21.30	13.48	21.58	15.74	20.80
<i>Exogeneity</i>								
Hansen J -Stat (p-value)	0.13 (0.72)	0.02 (0.90)	0.06 (0.80)	0.21 (0.65)	0.58 (0.45)	0.01 (0.91)	0.01 (0.91)	0.02 (0.90)
Observations	679	679	679	679	679	679	679	679
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Panel B: Second-Stage estimates using somatic distance as instrument								
<i>Dependent variable: aggregated export flows</i>								
DtS trust	0.96** (0.47)	0.73 (0.46)	0.38 (0.45)	0.18 (0.51)	-0.14 (0.55)	0.50 (0.52)	0.51 (0.50)	0.74 (0.53)
Common language	0.25** (0.11)	0.25** (0.10)	0.25** (0.10)	0.25** (0.10)	0.25** (0.11)	0.25** (0.10)	0.25** (0.10)	0.25** (0.10)
Weighted distance (log)	-0.93*** (0.24)	-0.96*** (0.23)	-1.01*** (0.22)	-1.03*** (0.21)	-1.08*** (0.22)	-0.99*** (0.23)	-0.99*** (0.24)	-0.96*** (0.24)
Common border	0.26*** (0.10)	0.25*** (0.09)	0.24*** (0.09)	0.24*** (0.09)	0.23** (0.09)	0.25*** (0.09)	0.25*** (0.09)	0.25*** (0.09)
Press coverage	-0.40 (0.92)	-0.58 (0.93)	-0.86 (0.85)	-1.02 (0.89)	-1.27 (0.89)	-0.76 (0.90)	-0.76 (0.91)	-0.57 (0.92)
Transportation costs (log)	2.47 (1.60)	2.43 (1.55)	2.36 (1.49)	2.32 (1.48)	2.26 (1.46)	2.38 (1.51)	2.38 (1.49)	2.43 (1.55)
Same legal origin	0.41*** (0.13)	0.43*** (0.13)	0.45*** (0.12)	0.46*** (0.11)	0.48*** (0.11)	0.44*** (0.12)	0.44*** (0.12)	0.43*** (0.13)
Linguistic common roots	-0.14 (0.29)	-0.12 (0.29)	-0.09 (0.28)	-0.08 (0.28)	-0.05 (0.29)	-0.10 (0.29)	-0.10 (0.28)	-0.12 (0.29)
<i>Relevance</i>								
K-P rk LM Statistic (p-value)	13.97 (0.00)	22.09 (0.00)	16.56 (0.00)	20.81 (0.00)	13.27 (0.00)	18.66 (0.00)	14.32 (0.00)	19.30 (0.00)
<i>Weak Identification</i>								
K-P rk Wald Statistic	21.35	30.98	25.37	31.70	16.95	31.27	17.11	25.73
Observations	679	679	679	679	679	679	679	679
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes. This table presents the IV/LIML coefficients of estimating equation (1) when DtS trust is instrumented with both variables of cultural proximity of country-pairs (Panel A), and the IV/LIML estimates when instrumenting DtS trust only with a measure of somatic distance (Panel B). In each column, we use an alternative indicator of somatic distance as instrument for bilateral trust. In columns (1) to (4) we use the indicators made available by Guiso et al. (2008a), in columns (5) and (6) the indicators elaborated following the instructions given by them, and in columns (7) and (8) the measures that take the population density into account. The columns are labeled with the letters *H*, *C*, and *S*: *H* stands for height and hair, *C* for cephalic index, and *S* for skin. Cluster-robust standard errors are reported in parentheses and the coefficients are statistically different from zero at the ***1%, **5%, and *10% level.

Table A.4
Trade regression: Instrumenting DtS trust with alternative measures of somatic distance (full results; see Table 3)

	Guiso et al. (2008a)				Replication		Pop. Density	
	HHC (1)	HH (2)	HHCS (3)	HHS (4)	HHC (5)	HH (6)	HHC (7)	HH (8)
Panel A: First-stage regression								
<i>Dependent variable: Destination-to-Source trust</i>								
Somatic distance	-0.06*** (0.01)	-0.09*** (0.02)	-0.06*** (0.01)	-0.07*** (0.01)	-0.05*** (0.01)	-0.09*** (0.02)	-0.05*** (0.01)	-0.08*** (0.02)
Religious similarity	0.18*** (0.06)	0.15** (0.06)	0.20*** (0.06)	0.18*** (0.06)	0.17*** (0.07)	0.14** (0.06)	0.15** (0.06)	0.15** (0.06)
Common language	0.06 (0.06)	0.09 (0.07)	0.07 (0.06)	0.09 (0.07)	0.09 (0.06)	0.13* (0.07)	0.10* (0.06)	0.11 (0.07)
Weighted distance (log)	-0.08 (0.09)	-0.05 (0.09)	-0.04 (0.09)	-0.02 (0.09)	-0.12 (0.09)	-0.09 (0.09)	-0.06 (0.09)	-0.06 (0.09)
Common border	-0.05 (0.05)	0.00 (0.06)	-0.03 (0.05)	0.03 (0.06)	-0.09 (0.06)	-0.04 (0.06)	-0.03 (0.06)	-0.01 (0.06)
Press coverage	-0.39 (0.43)	-0.30 (0.45)	-0.30 (0.42)	-0.24 (0.45)	-0.49 (0.43)	-0.50 (0.46)	-0.39 (0.43)	-0.29 (0.45)
Transportation costs (log)	0.23 (0.75)	-0.05 (0.76)	0.37 (0.73)	0.17 (0.74)	0.40 (0.72)	0.36 (0.74)	-0.00 (0.77)	-0.10 (0.77)
Same legal origin	0.00 (0.05)	-0.00 (0.05)	-0.00 (0.05)	0.00 (0.04)	0.03 (0.05)	0.02 (0.05)	0.02 (0.05)	-0.01 (0.04)
Linguistic common roots	-0.04 (0.12)	-0.26** (0.13)	-0.07 (0.12)	-0.26** (0.13)	-0.10 (0.12)	-0.25** (0.13)	-0.14 (0.13)	-0.30** (0.13)
Observations	679	679	679	679	679	679	679	679
R-squared	0.81	0.82	0.82	0.82	0.81	0.81	0.80	0.81
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Panel B: Reduced form equation of international trade								
<i>Dependent variable: aggregated export flows</i>								
Somatic distance	-0.06* (0.03)	-0.06 (0.05)	-0.02 (0.03)	-0.01 (0.04)	0.01 (0.04)	-0.04 (0.05)	-0.03 (0.03)	-0.06 (0.05)
Religious similarity	0.11 (0.14)	0.09 (0.14)	0.12 (0.14)	0.11 (0.14)	0.12 (0.14)	0.09 (0.15)	0.10 (0.14)	0.09 (0.14)
Common language	0.30** (0.12)	0.32** (0.13)	0.29** (0.12)	0.28** (0.12)	0.26** (0.13)	0.32** (0.14)	0.30** (0.13)	0.33** (0.13)
Weighted distance (log)	-0.99*** (0.23)	-0.99*** (0.23)	-1.03*** (0.24)	-1.05*** (0.25)	-1.09*** (0.24)	-1.04*** (0.23)	-1.03*** (0.25)	-0.99*** (0.24)
Common border	0.21** (0.10)	0.25** (0.10)	0.23** (0.10)	0.24** (0.11)	0.24** (0.11)	0.23** (0.10)	0.23** (0.10)	0.25** (0.10)
Press coverage	-0.80 (0.98)	-0.80 (1.01)	-0.95 (0.97)	-1.03 (0.99)	-1.14 (0.95)	-1.00 (0.97)	-0.95 (0.98)	-0.79 (1.01)
Transportation costs (log)	2.49 (1.66)	2.32 (1.68)	2.63 (1.68)	2.60 (1.72)	2.64 (1.74)	2.63 (1.67)	2.45 (1.81)	2.28 (1.71)
Same legal origin	0.42*** (0.13)	0.43*** (0.14)	0.45*** (0.13)	0.46*** (0.13)	0.47*** (0.13)	0.45*** (0.13)	0.45*** (0.13)	0.42*** (0.14)
Linguistic common roots	-0.15 (0.31)	-0.30 (0.34)	-0.13 (0.31)	-0.15 (0.34)	-0.08 (0.34)	-0.23 (0.36)	-0.17 (0.33)	-0.33 (0.36)
Observations	679	679	679	679	679	679	679	679
R-squared	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes. This table presents the coefficients of estimating the first-stage regression (Panel A), the reduced form equation of the dependent variable (Panel B), the IV coefficients of estimating equation (1) when DtS trust is instrumented with both variables of cultural proximity of country-pairs (Panel C), and the IV estimates when instrumenting DtS trust only with a measure of somatic distance (Panel D). In each column, we use an alternative indicator of somatic distance as instrument for bilateral trust. In columns (1) to (4) we use the indicators made available by Guiso et al. (2008a), in columns (5) and (6) the indicators elaborated following the instructions given by them, and in columns (7) and (8) the measures that take the population density into account. The columns are labeled with the letters *H*, *C*, and *S*: *H* stands for height and hair, *C* for cephalic index, and *S* for skin. Cluster-robust standard errors are reported in parentheses and the coefficients are statistically different from zero at the ***1%, **5%, and *10% level.

Table A.5
Trade: controlling for linguistic similarity of country-pairs as in Melitz and Toubal (2014)

	Guiso et al. (2008a)				Replication		Pop. Density	
	HHC (1)	HH (2)	HHCS (3)	HHS (4)	HHC (5)	HH (6)	HHC (7)	HH (8)
Panel A: First-stage regression								
<i>Dependent variable: Destination-to-Source trust</i>								
DtS trust	-0.05*** (0.01)	-0.07*** (0.02)	-0.06*** (0.01)	-0.07*** (0.01)	-0.05*** (0.02)	-0.08*** (0.02)	-0.04*** (0.01)	-0.06*** (0.02)
Religious similarity	0.15** (0.07)	0.14** (0.07)	0.17** (0.07)	0.17*** (0.06)	0.15** (0.07)	0.13* (0.07)	0.14* (0.07)	0.14** (0.07)
Common official language	-0.01 (0.05)	-0.05 (0.05)	-0.02 (0.05)	-0.07 (0.05)	0.00 (0.06)	0.00 (0.05)	-0.01 (0.05)	-0.03 (0.05)
Common spoken language	0.48*** (0.14)	0.38*** (0.14)	0.49*** (0.14)	0.40*** (0.14)	0.46*** (0.14)	0.40*** (0.15)	0.42*** (0.15)	0.36** (0.15)
Common native language	0.05 (0.17)	0.14 (0.17)	0.00 (0.16)	0.08 (0.17)	-0.02 (0.18)	-0.07 (0.19)	0.10 (0.17)	0.07 (0.17)
Linguistic proximity (ASPJ)	-0.00 (0.03)	-0.04 (0.03)	-0.03 (0.03)	-0.07** (0.03)	-0.03 (0.04)	-0.07* (0.04)	-0.01 (0.03)	-0.05 (0.04)
Weighted distance (log)	-0.03 (0.09)	-0.01 (0.09)	-0.01 (0.09)	0.01 (0.09)	-0.09 (0.08)	-0.09 (0.09)	-0.03 (0.09)	-0.04 (0.09)
Common border	-0.08 (0.05)	-0.04 (0.06)	-0.06 (0.05)	-0.01 (0.06)	-0.11* (0.06)	-0.07 (0.06)	-0.07 (0.06)	-0.04 (0.06)
Press coverage	-0.33 (0.38)	-0.44 (0.42)	-0.30 (0.37)	-0.41 (0.40)	-0.47 (0.41)	-0.55 (0.44)	-0.45 (0.41)	-0.43 (0.41)
Transportation costs (log)	0.07 (0.73)	-0.31 (0.74)	0.26 (0.71)	-0.06 (0.72)	0.31 (0.71)	0.28 (0.72)	-0.14 (0.75)	-0.25 (0.75)
Same legal origin	-0.05 (0.05)	-0.09* (0.05)	-0.05 (0.05)	-0.08* (0.05)	-0.01 (0.05)	-0.03 (0.05)	-0.04 (0.05)	-0.08* (0.05)
Observations	679	679	679	679	679	679	679	679
R-squared	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Panel B: Reduced form equation of international trade								
<i>Dependent variable: aggregated export flows</i>								
DtS trust	-0.06* (0.03)	-0.09 (0.05)	-0.03 (0.03)	-0.04 (0.04)	0.01 (0.04)	-0.07 (0.07)	-0.03 (0.04)	-0.08 (0.05)
Religious similarity	0.15 (0.14)	0.14 (0.14)	0.16 (0.14)	0.16 (0.14)	0.15 (0.14)	0.13 (0.15)	0.14 (0.14)	0.14 (0.14)
Common official language	0.01 (0.11)	-0.03 (0.11)	-0.01 (0.11)	-0.03 (0.11)	-0.03 (0.12)	0.02 (0.11)	0.00 (0.11)	-0.01 (0.11)
Common spoken language	0.71** (0.36)	0.59* (0.35)	0.75** (0.36)	0.71* (0.37)	0.79** (0.37)	0.65* (0.35)	0.68* (0.36)	0.54 (0.35)
Common native language	0.30 (0.48)	0.40 (0.49)	0.29 (0.48)	0.33 (0.49)	0.35 (0.50)	0.20 (0.48)	0.34 (0.49)	0.31 (0.47)
Linguistic proximity (ASPJ)	-0.13 (0.09)	-0.17* (0.09)	-0.14 (0.08)	-0.16* (0.08)	-0.11 (0.10)	-0.19* (0.10)	-0.14 (0.09)	-0.19** (0.09)
Weighted distance (log)	-1.00*** (0.25)	-0.97*** (0.26)	-1.03*** (0.26)	-1.02*** (0.27)	-1.08*** (0.26)	-1.06*** (0.25)	-1.02*** (0.28)	-0.99*** (0.25)
Common border	0.16 (0.10)	0.21** (0.10)	0.18* (0.11)	0.20* (0.11)	0.19 (0.12)	0.17 (0.11)	0.18* (0.10)	0.21** (0.10)
Press coverage	-1.50 (1.01)	-1.59 (0.99)	-1.62 (1.02)	-1.68 (1.02)	-1.81* (1.04)	-1.73* (1.00)	-1.66 (1.01)	-1.54 (1.00)
Transportation costs (log)	2.18 (1.88)	1.72 (1.94)	2.33 (1.88)	2.18 (1.92)	2.28 (1.93)	2.38 (1.85)	2.05 (2.07)	1.72 (1.95)
Same legal origin	0.32** (0.13)	0.27* (0.14)	0.34*** (0.12)	0.33** (0.13)	0.36*** (0.12)	0.34*** (0.12)	0.33*** (0.13)	0.27* (0.14)
Observations	679	679	679	679	679	679	679	679
R-squared	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes. This table presents the coefficients of estimating the first-stage regression (Panel A), the reduced form equation of the dependent variable (Panel B), the IV coefficients of estimating equation (1) when DtS trust is instrumented with both variables of cultural proximity of country-pairs (Panel C), and the IV estimates when instrumenting DtS trust only with a measure of somatic distance (Panel D). In each column, we use an alternative indicator of somatic distance as instrument for bilateral trust. In columns (1) to (4) we use the indicators made available by Guiso et al. (2008a), in columns (5) and (6) the indicators elaborated following the instructions given by them, and in columns (7) and (8) the measures that take the population density into account. The columns are labeled with the letters *H*, *C*, and *S*: *H* stands for height and hair, *C* for cephalic index, and *S* for skin. The indicators measuring linguistic similarity of country-pairs come from Melitz and Toubal (2014). Cluster-robust standard errors are reported in parentheses and the coefficients are statistically different from zero at the ***1%, **5%, and *10% level.

Table A.6
StD trust and international migration: LIML

	Guiso et al. (2008a)				Replication		Pop. Density	
	HHC (1)	HH (2)	HHCS (3)	HHS (4)	HHC (5)	HH (6)	HHC (7)	HH (8)
Panel A: Second-stage estimates using somatic distance and religious similarity as instruments								
<i>Dependent variable: international immigration flows</i>								
StD Trust	2.20** (0.94)	1.83** (0.80)	0.92 (0.87)	0.56 (0.85)	1.34 (0.89)	1.12 (0.84)	2.00** (0.89)	1.65* (0.84)
Diff. in GDP p.c. (%)	2.49** (0.97)	2.40*** (0.88)	2.19*** (0.83)	2.10*** (0.78)	2.28*** (0.84)	2.23*** (0.82)	2.44*** (0.91)	2.36*** (0.86)
Common language	-0.40 (0.29)	-0.39 (0.28)	-0.37 (0.28)	-0.36 (0.28)	-0.38 (0.28)	-0.38 (0.28)	-0.39 (0.28)	-0.39 (0.28)
Weighted distance (log)	-0.42 (0.28)	-0.45* (0.27)	-0.53** (0.27)	-0.56** (0.27)	-0.49* (0.28)	-0.51* (0.28)	-0.44 (0.27)	-0.47* (0.27)
Common border	0.28 (0.31)	0.28 (0.31)	0.27 (0.32)	0.26 (0.32)	0.27 (0.31)	0.27 (0.32)	0.28 (0.31)	0.28 (0.31)
Same legal origin	0.54*** (0.20)	0.57*** (0.19)	0.65*** (0.20)	0.68*** (0.20)	0.61*** (0.19)	0.63*** (0.19)	0.56*** (0.20)	0.59*** (0.19)
Mig. stock 1960 (log)	0.23 (0.15)	0.25* (0.15)	0.30** (0.15)	0.32** (0.15)	0.28* (0.15)	0.29** (0.15)	0.24 (0.16)	0.26* (0.15)
<i>Relevance</i>								
K-P rk LM Statistic (p-value)	21.61 (0.00)	25.88 (0.00)	24.39 (0.00)	26.94 (0.00)	21.68 (0.00)	24.99 (0.00)	20.80 (0.00)	24.69 (0.00)
<i>Weak Identification</i>								
K-P rk Wald Statistic	14.41	16.10	18.64	19.19	12.54	17.59	14.74	17.68
<i>Exogeneity</i>								
Hansen J-Stat (p-value)	0.02 (0.88)	0.07 (0.80)	1.79 (0.18)	2.12 (0.15)	0.90 (0.34)	0.90 (0.34)	0.01 (0.93)	0.17 (0.68)
Observations	450	450	450	450	450	450	450	450
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Panel B: Second-stage estimates using somatic distance as instrument								
<i>Dependent variable: international immigration flows</i>								
StD Trust	2.40 (1.51)	1.60 (1.23)	-0.33 (1.30)	-0.47 (1.23)	-0.36 (1.79)	0.24 (1.36)	1.89 (1.50)	1.28 (1.33)
Diff. in GDP p.c. (%)	2.55** (1.02)	2.32*** (0.86)	1.77** (0.78)	1.73** (0.74)	1.76** (0.77)	1.93** (0.78)	2.40*** (0.89)	2.23*** (0.83)
Common language	-0.42 (0.29)	-0.36 (0.27)	-0.23 (0.29)	-0.22 (0.29)	-0.23 (0.30)	-0.27 (0.29)	-0.38 (0.29)	-0.34 (0.28)
Weighted distance (log)	-0.41 (0.28)	-0.46* (0.27)	-0.59** (0.27)	-0.60** (0.27)	-0.59** (0.29)	-0.55** (0.28)	-0.44* (0.27)	-0.48* (0.27)
Common border	0.30 (0.29)	0.26 (0.30)	0.18 (0.34)	0.18 (0.34)	0.18 (0.34)	0.21 (0.33)	0.27 (0.29)	0.25 (0.31)
Same legal origin	0.56** (0.22)	0.54** (0.22)	0.51** (0.24)	0.50** (0.24)	0.50** (0.25)	0.52** (0.24)	0.55** (0.22)	0.54** (0.23)
Mig. stock 1960 (log)	0.23 (0.16)	0.25 (0.16)	0.33** (0.16)	0.33** (0.16)	0.33** (0.16)	0.30** (0.15)	0.24 (0.17)	0.27* (0.16)
Religious similarity	-0.08 (0.56)	0.13 (0.51)	0.65 (0.52)	0.69 (0.51)	0.66 (0.67)	0.50 (0.54)	0.05 (0.57)	0.22 (0.54)
<i>Relevance</i>								
K-P rk LM Statistic (p-value)	13.99 (0.00)	22.52 (0.00)	20.47 (0.00)	23.71 (0.00)	8.23 (0.00)	17.72 (0.00)	17.50 (0.00)	19.50 (0.00)
<i>Weak Identification</i>								
K-P rk Wald Statistic	12.37	18.11	19.65	23.80	5.54	18.62	12.85	19.30
Observations	450	450	450	450	450	450	450	450
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes. This table presents the coefficients of estimating the IV/LIML coefficients of estimating equation (3) when StD trust is instrumented with both variables of cultural proximity of country-pairs (Panel A), and the IV estimates when instrumenting StD trust only with a measure of somatic distance (Panel B). In each column, we use an alternative indicator of somatic distance as instrument for bilateral trust. In columns (1) to (4) we use the indicators made available by GSZ, in columns (5) and (6) the indicators elaborated following the instructions given by Guiso et al. (2008a), and in columns (7) and (8) the measures that take the population density into account. The columns are labeled with the letters *H*, *C*, and *S*: *H* stands for height and hair, *C* for cephalic index, and *S* for skin. Cluster-robust standard errors are reported in parentheses and the coefficients are statistically different from zero at the ***1%, **5%, and *10% level.

Table A.7
DtS trust and international migration: LIML

	Guiso et al. (2008a)				Replication		Pop. Density	
	HHC (1)	HH (2)	HHCS (3)	HHS (4)	HHC (5)	HH (6)	HHC (7)	HH (8)
Panel A: Second-stage estimates using somatic distance and religious similarity as instruments								
<i>Dependent variable: international immigration flows</i>								
DtS Trust	1.88* (1.01)	1.78* (1.08)	0.27 (0.94)	0.09 (1.11)	0.66 (1.06)	0.93 (1.28)	1.76* (1.02)	1.56 (1.20)
Diff. in GDP p.c. (%)	2.10*** (0.79)	2.10*** (0.79)	2.05*** (0.71)	2.04*** (0.70)	2.06*** (0.72)	2.07*** (0.74)	2.10*** (0.78)	2.09*** (0.77)
Common language	-0.22 (0.30)	-0.22 (0.30)	-0.30 (0.30)	-0.31 (0.30)	-0.28 (0.30)	-0.26 (0.30)	-0.22 (0.30)	-0.23 (0.30)
Weighted distance (log)	-0.51* (0.27)	-0.52* (0.27)	-0.61** (0.27)	-0.62** (0.27)	-0.59** (0.27)	-0.57** (0.28)	-0.52** (0.26)	-0.53** (0.27)
Common border	0.15 (0.28)	0.15 (0.29)	0.23 (0.33)	0.24 (0.33)	0.21 (0.31)	0.19 (0.30)	0.15 (0.29)	0.16 (0.29)
Same legal origin	0.54** (0.21)	0.55*** (0.21)	0.65*** (0.21)	0.67*** (0.21)	0.63*** (0.21)	0.61*** (0.21)	0.55*** (0.21)	0.56*** (0.20)
Mig. stock 1960 (log)	0.19 (0.16)	0.20 (0.16)	0.31* (0.16)	0.33* (0.17)	0.28* (0.16)	0.26 (0.17)	0.20 (0.16)	0.21 (0.16)
<i>Relevance</i>								
K-P <i>rk</i> LM Statistic (p-value)	13.93 (0.00)	15.21 (0.00)	13.88 (0.00)	14.52 (0.00)	13.15 (0.00)	11.70 (0.00)	15.97 (0.00)	13.97 (0.00)
<i>Weak Identification</i>								
K-P <i>rk</i> Wald Statistic	15.05	11.37	14.19	10.10	13.23	8.62	14.73	10.10
<i>Exogeneity</i>								
Hansen <i>J</i> -Stat (p-value)	0.60 (0.44)	0.65 (0.42)	2.50 (0.11)	2.48 (0.12)	1.88 (0.17)	1.59 (0.21)	0.74 (0.39)	0.88 (0.35)
Observations	463	463	463	463	463	463	463	463
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Panel B: Second-stage estimates using somatic distance as Instrument								
<i>Dependent variable: international immigration flows</i>								
DtS Trust	1.53 (1.02)	1.39 (1.16)	-0.37 (1.03)	-0.65 (1.29)	-0.29 (1.29)	0.05 (1.52)	1.40 (1.05)	1.06 (1.33)
Diff. in GDP p.c. (%)	2.05*** (0.76)	2.04*** (0.75)	1.94*** (0.67)	1.93*** (0.65)	1.95*** (0.66)	1.96*** (0.68)	2.04*** (0.75)	2.02*** (0.73)
Common language	-0.19 (0.29)	-0.20 (0.29)	-0.24 (0.30)	-0.25 (0.31)	-0.24 (0.30)	-0.23 (0.30)	-0.20 (0.29)	-0.20 (0.29)
Weighted distance (log)	-0.52** (0.26)	-0.52** (0.26)	-0.61** (0.26)	-0.62** (0.27)	-0.61** (0.27)	-0.59** (0.27)	-0.52** (0.26)	-0.54** (0.26)
Common border	0.14 (0.29)	0.14 (0.29)	0.21 (0.34)	0.22 (0.36)	0.20 (0.34)	0.19 (0.32)	0.14 (0.30)	0.16 (0.30)
Same legal origin	0.47** (0.22)	0.47** (0.22)	0.49** (0.24)	0.50** (0.25)	0.49** (0.24)	0.49** (0.23)	0.47** (0.22)	0.48** (0.22)
Mig. stock 1960 (log)	0.20 (0.16)	0.20 (0.16)	0.32* (0.17)	0.34* (0.18)	0.31* (0.17)	0.29* (0.17)	0.20 (0.16)	0.23 (0.17)
Religious similarity	0.25 (0.33)	0.27 (0.35)	0.55 (0.40)	0.59 (0.44)	0.54 (0.45)	0.48 (0.44)	0.27 (0.33)	0.33 (0.37)
<i>Relevance</i>								
K-P <i>rk</i> LM Statistic (p-value)	11.09 (0.00)	13.19 (0.00)	11.82 (0.00)	13.10 (0.00)	7.83 (0.01)	8.44 (0.00)	12.79 (0.00)	10.71 (0.00)
<i>Weak Identification</i>								
K-P <i>rk</i> Wald Statistic	20.49	17.22	22.35	16.22	14.61	10.73	23.49	14.29
Observations	463	463	463	463	463	463	463	463
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes. This table presents the coefficients of estimating the IV/LIML coefficients of estimating equation (4) when DtS trust is instrumented with both variables of cultural proximity of country-pairs (Panel A), and the IV estimates when instrumenting DtS trust only with a measure of somatic distance (Panel B). In each column, we use an alternative indicator of somatic distance as instrument for bilateral trust. In columns (1) to (4) we use the indicators made available by Guiso et al. (2008a), in columns (5) and (6) the indicators elaborated following the instructions given by them, and in columns (7) and (8) the measures that take the population density into account. The columns are labeled with the letters *H*, *C*, and *S*: *H* stands for height and hair, *C* for cephalic index, and *S* for skin. Cluster-robust standard errors are reported in parentheses and the coefficients are statistically different from zero at the ***1%, **5%, and *10% level.

Table A.8
Migration: Instrumenting StD trust with alternative measures of somatic distance (full results; see Table 6)

	Guiso et al. (2008a)				Replication		Pop. Density	
	HHC (1)	HH (2)	HHCS (3)	HHS (4)	HHC (5)	HH (6)	HHC (7)	HH (8)
Panel A: First-stage regression								
<i>Dependent variable: Source-to-Destination trust</i>								
Somatic distance	-0.04*** (0.01)	-0.06*** (0.01)	-0.04*** (0.01)	-0.05*** (0.01)	-0.03** (0.01)	-0.06*** (0.01)	-0.04*** (0.01)	-0.06*** (0.01)
Religious similarity	0.21*** (0.07)	0.18*** (0.06)	0.21*** (0.07)	0.18*** (0.06)	0.21*** (0.08)	0.16** (0.07)	0.20*** (0.07)	0.17** (0.07)
Diff. in GDP p.c. (%)	-0.22 (0.14)	-0.24* (0.12)	-0.18 (0.13)	-0.20* (0.11)	-0.21* (0.12)	-0.22* (0.11)	-0.24* (0.14)	-0.24** (0.12)
Common language	0.07 (0.05)	0.07 (0.05)	0.07 (0.05)	0.07 (0.05)	0.10** (0.05)	0.13*** (0.05)	0.09* (0.05)	0.09* (0.05)
Weighted distance (log)	-0.03 (0.05)	-0.00 (0.05)	0.01 (0.05)	0.03 (0.05)	-0.04 (0.05)	-0.00 (0.05)	-0.01 (0.05)	-0.00 (0.04)
Common border	-0.03 (0.05)	-0.00 (0.05)	-0.01 (0.05)	0.02 (0.05)	-0.07 (0.05)	-0.05 (0.05)	-0.03 (0.05)	-0.01 (0.05)
Same legal origin	-0.01 (0.04)	-0.02 (0.04)	-0.01 (0.04)	-0.03 (0.04)	-0.01 (0.05)	-0.01 (0.04)	-0.01 (0.04)	-0.03 (0.04)
Mig. stock 1960 (log)	0.04 (0.02)	0.03 (0.02)	0.04 (0.02)	0.03 (0.02)	0.03 (0.02)	0.03 (0.02)	0.04* (0.02)	0.04 (0.02)
Observations	450	450	450	450	450	450	450	450
R-squared	0.88	0.89	0.89	0.89	0.88	0.89	0.88	0.89
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Panel B: Reduced form equation of international migration								
<i>Dependent variable: international immigration flows</i>								
Somatic distance	-0.09 (0.07)	-0.09 (0.08)	0.01 (0.06)	0.03 (0.08)	0.01 (0.07)	-0.02 (0.10)	-0.08 (0.07)	-0.07 (0.09)
Religious similarity	0.43 (0.39)	0.41 (0.40)	0.58 (0.43)	0.60 (0.45)	0.58 (0.45)	0.53 (0.46)	0.42 (0.40)	0.44 (0.41)
Diff. in GDP p.c. (%)	2.01** (0.84)	1.93** (0.84)	1.83** (0.84)	1.82** (0.82)	1.83** (0.80)	1.88** (0.83)	1.94** (0.83)	1.91** (0.84)
Common language	-0.25 (0.35)	-0.26 (0.35)	-0.26 (0.34)	-0.26 (0.33)	-0.27 (0.35)	-0.24 (0.36)	-0.21 (0.35)	-0.23 (0.35)
Weighted distance (log)	-0.47 (0.30)	-0.47 (0.31)	-0.60* (0.32)	-0.62* (0.33)	-0.58* (0.31)	-0.55* (0.33)	-0.46 (0.30)	-0.49 (0.32)
Common border	0.23 (0.37)	0.26 (0.37)	0.19 (0.39)	0.17 (0.40)	0.21 (0.39)	0.20 (0.38)	0.23 (0.36)	0.23 (0.38)
Same legal origin	0.53** (0.26)	0.51* (0.26)	0.51* (0.28)	0.52* (0.28)	0.51* (0.28)	0.51* (0.28)	0.52** (0.26)	0.49* (0.26)
Mig. stock 1960 (log)	0.32* (0.17)	0.31* (0.17)	0.31* (0.17)	0.32* (0.17)	0.31* (0.17)	0.31* (0.17)	0.32* (0.16)	0.31* (0.17)
Observations	450	450	450	450	450	450	450	450
R-squared	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes. This table presents the coefficients of estimating the first-stage regression (Panel A), the reduced form equation of the dependent variable (Panel B), the IV coefficients of estimating equation (3) when StD trust is instrumented with both variables of cultural proximity of country-pairs (Panel C), and the IV estimates when instrumenting StD trust only with a measure of somatic distance (Panel D). In each column, we use an alternative indicator of somatic distance as instrument for bilateral trust. In columns (1) to (4) we use the indicators made available by GSZ, in columns (5) and (6) the indicators elaborated following the instructions given by Guiso et al. (2008a), and in columns (7) and (8) the measures that take the population density into account. The columns are labeled with the letters *H*, *C*, and *S*: *H* stands for height and hair, *C* for cephalic index, and *S* for skin. Cluster-robust standard errors are reported in parentheses and the coefficients are statistically different from zero at the ***1%, **5%, and *10% level.

Table A.9
Migration: Instrumenting DtS trust with alternative measures of somatic distance (full results; see Table 7)

	Guiso et al. (2008a)				Replication		Pop. Density	
	HHC (1)	HH (2)	HHCS (3)	HHS (4)	HHC (5)	HH (6)	HHC (7)	HH (8)
Panel A: First-stage regression								
<i>Dependent variable: Destination-to-Source trust</i>								
Somatic distance	-0.06*** (0.01)	-0.06*** (0.01)	-0.05*** (0.01)	-0.05*** (0.01)	-0.05*** (0.01)	-0.06*** (0.02)	-0.06*** (0.01)	-0.05*** (0.01)
Religious similarity	0.07 (0.07)	0.06 (0.07)	0.08 (0.07)	0.07 (0.07)	0.08 (0.08)	0.06 (0.08)	0.06 (0.07)	0.06 (0.07)
Diff. in GDP p.c. (%)	0.03 (0.11)	-0.01 (0.11)	0.08 (0.10)	0.04 (0.11)	0.05 (0.10)	0.01 (0.11)	0.01 (0.11)	-0.01 (0.11)
Common language	-0.02 (0.06)	-0.03 (0.06)	-0.02 (0.06)	-0.03 (0.06)	0.03 (0.06)	0.03 (0.06)	0.01 (0.05)	-0.01 (0.06)
Weighted distance (log)	0.01 (0.05)	0.01 (0.05)	0.05 (0.06)	0.04 (0.06)	-0.01 (0.05)	0.01 (0.05)	0.03 (0.05)	0.01 (0.05)
Common border	0.05 (0.06)	0.08 (0.07)	0.07 (0.07)	0.09 (0.07)	-0.00 (0.07)	0.03 (0.07)	0.06 (0.06)	0.06 (0.07)
Same legal origin	0.02 (0.05)	0.01 (0.05)	0.02 (0.04)	0.00 (0.05)	0.03 (0.05)	0.02 (0.05)	0.02 (0.05)	0.00 (0.05)
Mig. Stock 1960 (log)	0.07*** (0.02)	0.06** (0.03)	0.06** (0.02)	0.06** (0.03)	0.06** (0.03)	0.06** (0.03)	0.07*** (0.03)	0.06** (0.03)
Observations	463	463	463	463	463	463	463	463
R-squared	0.88	0.87	0.88	0.88	0.87	0.87	0.88	0.87
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Panel B: Reduced form equation of international migration								
<i>Dependent variable: international immigration flows</i>								
Somatic distance	-0.08 (0.06)	-0.08 (0.08)	0.02 (0.06)	0.03 (0.08)	0.01 (0.07)	-0.00 (0.10)	-0.08 (0.07)	-0.06 (0.08)
Religious similarity	0.36 (0.39)	0.36 (0.40)	0.52 (0.42)	0.55 (0.44)	0.51 (0.45)	0.49 (0.46)	0.35 (0.39)	0.39 (0.41)
Diff. in GDP p.c. (%)	2.10** (0.81)	2.03** (0.82)	1.91** (0.82)	1.90** (0.80)	1.93** (0.78)	1.97** (0.80)	2.05** (0.81)	2.01** (0.81)
Common language	-0.22 (0.36)	-0.23 (0.36)	-0.23 (0.34)	-0.23 (0.34)	-0.24 (0.36)	-0.23 (0.37)	-0.19 (0.36)	-0.21 (0.36)
Weighted distance (log)	-0.50 (0.31)	-0.50 (0.31)	-0.63* (0.32)	-0.65* (0.33)	-0.60* (0.31)	-0.59* (0.33)	-0.48 (0.30)	-0.53 (0.32)
Common border	0.22 (0.37)	0.25 (0.37)	0.18 (0.39)	0.16 (0.40)	0.20 (0.39)	0.19 (0.38)	0.22 (0.36)	0.22 (0.38)
Same legal origin	0.51* (0.26)	0.49* (0.26)	0.49* (0.28)	0.50* (0.28)	0.49* (0.28)	0.49* (0.28)	0.50* (0.26)	0.48* (0.26)
Mig. Stock 1960 (log)	0.30* (0.17)	0.29* (0.17)	0.30* (0.17)	0.30* (0.17)	0.30* (0.17)	0.29* (0.17)	0.30* (0.16)	0.29* (0.17)
Observations	463	463	463	463	463	463	463	463
R-squared	0.89	0.90	0.89	0.89	0.89	0.89	0.90	0.89
Country-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes. This table presents the coefficients of estimating the first-stage regression (Panel A), the reduced form equation of the dependent variable (Panel B), the IV coefficients of estimating equation (4) when DtS trust is instrumented with both variables of cultural proximity of country-pairs (Panel C), and the IV estimates when instrumenting DtS trust only with a measure of somatic distance (Panel D). In each column, we use an alternative indicator of somatic distance as instrument for bilateral trust. In columns (1) to (4) we use the indicators made available by Guiso et al. (2008a), in columns (5) and (6) the indicators elaborated following the instructions given by them, and in columns (7) and (8) the measures that take the population density into account. The columns are labeled with the letters *H*, *C*, and *S*: *H* stands for height and hair, *C* for cephalic index, and *S* for skin. Cluster-robust standard errors are reported in parentheses and the coefficients are statistically different from zero at the ***1%, **5%, and *10% level.

