Inherited Trust and Growth

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Abstract

This paper develops a new method to uncover the causal effect of trust on economic growth, by focusing on the inherited component of trust and its time variation. We show that inherited trust of descendants of US-immigrants is significantly influenced by the country of origin and the timing of arrival of their forbears. We thus use the inherited trust of descendants of US-immigrants as a time-varying measure of inherited trust in their country of origin. This strategy allows to identify the sizeable causal impact of inherited trust on worldwide growth during the 20th century by controlling for country fixed effects.

KEYWORDS: Social capital, trust, economic development, growth.

JEL CODES: O10, F10, P10, N13.

What are the fundamental causes of large differences in income per capita across countries? Although there is still little consensus on the answers to this question, a growing literature considers that trust is one of the main determinants of current economic development.[1] As stressed by Kenneth Arrow (1972) "Virtually every commercial transaction has within itself an element of trust, certainly any transaction conducted over a period of time. It can be plausibly argued that much of the economic backwardness in the world can be explained by the lack of mutual confidence." A prerequisite for the successful development of market economies would be to depart from closed group interactions and to enlarge exchanges to anonymous others. In that regard, generalized trust and trustworthiness appear as the keystone for successful economic development. This idea has a long tradition in the political sciences since the seminal works by Edward C. Banfield (1958), Diego Gambetta (1988), James Coleman (1990), Avner Greif (1993), Robert Putnam (1993, 2000) and Francis Fukuyama (1995). This view has recently been restated by economists using questions on generalized trust from cross-country social surveys like the World Values Survey (see Rafael La Porta et al., 1997, Stephen Knack and Philip Keefer, 1997, Guido Tabellini, 2009).

Nonetheless, the economic literature cannot explain easily the causal effect of trust on growth. The main reason is that previous studies identify the effect of trust on income per capita from cross-country or cross-regional differences, without any time variation. This makes it impossible to control for specific invariant national or regional features which could codetermine both trust and economic development. For example, Tabellini (2009) analyzes the role of culture on income per capita of European regions by using historical variables (institutional history and literacy rate) as an instrument for contemporaneous trust. Though this analysis exploits variations in the historical variables across regions, which enables to control for country fixed effects, it makes it impossible to control for regional fixed effects. It is thus difficult to exclude the possibility that some time invariant factors, such as the geography of the region, could cause both the low literacy rate in the region and the present low level of trust. This difficulty is common to all studies using time-invariant instruments for trust, such as hierarchical religions (La Porta et al., 1997) or ethnic fractionalization (Knack and Keefer, 1997).

The above approach leaves open the question as to whether or not the level of trust does matter per se in explaining economic development or if it picks up the deeper influence of time invariant features such as legal origins (Edward Glaeser and Andrei Shleifer, 2002; La Porta et al., 2008), the quality of institutions (Robert E. Hall and Charles Jones, 1999; Daron Acemoglu et al., 2001), initial education (Glaeser et al., 2004), the extent of fractionalization (Dani Rodrick, 1999, Rodrick et al., 2004, Alberto

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[1] In this paper, we focus on beliefs and avoid loaded terms such as "social capital" and "culture". There is a vast literature on the determinants of such beliefs and their relationships with institutions and economic outcomes. See, among others: Banfield (1958), Gambetta (1988), Coleman (1990), Putnam (1993), Knack and Keefer (1997), La Porta et al. (1997) , Alesina and La Ferrara (2002), Guiso et al. (2004, 2006, 2007, 2008, 2009), Tabellini (2008, 2009),.Algan and Cahuc (2009), Nunn and Wantchekon (2009), and Aghion et al. (2010).

Alesina et al., 2001) or geography (Jeffrey Sachs, 2003). What one needs is thus to find a measure for trust with intertemporal variation, allowing one to control for time invariant specific factors. The difficulty in performing such an exercise is that there is no long-time series on the evolution of trust. At best, it is possible to go back only to the 1980s to have a measure of trust in cross-country surveys.

Our paper provides a new empirical strategy to uncover the causal effect of trust on economic development by focusing on the inherited component of trust and on its time variation over long periods. Since it is already well-established that the parents' social capital is a good predictor of the social capital of children (see Tom W. Rice and Jan L. Feldman, 1997, Putnam, 2000; Luigi Guiso et al., 2006), we use the trust that US descendants have inherited from their forebears who immigrated from different countries at different dates to detect changes in inherited trust in the countries of origin. For instance, by comparing Americans with Italian and German origin whose forebears migrated between 1950 and 1980, we can detect differences in trust inherited from these two source countries between 1950 and 1980. We can get time varying measures of trust inherited from these two countries by running the same exercise for forebears who immigrated in other periods, for instance between 1920 and 1950. Once we have obtained time varying measures of inherited trust, we can estimate the impact of changes in inherited trust on changes in income per capita in the countries of origin. This method allows us to address the main challenges mentioned above to identify the effect of trust on economic development. By focusing on the inherited component of trust, we avoid reverse causality. By providing a time-varying measure of trust over long periods, we can control for both omitted time invariant factors and other observed time-varying factors such as changes in the economic, political, cultural and social environments. The estimation of inherited trust is carried on the General Social Survey, which provides information about the contemporaneous trust of US descendants of immigrants and the wave of immigration of their forebears. This strategy allows us to track back the evolution of inherited trust over the whole 20th century for 24 countries from all over the world, including Anglo-Saxon countries, Continental European countries, Mediterranean European countries, Nordic countries, Eastern European countries, India, Mexico and Africa.

We find that changes in inherited trust explain a substantial part of the changes in economic development over the period 1935-2000, even when country-fixed effects, past economic development and changes in institutions are accounted for. The differences in income per capita in developed countries, relative to Sweden, are overwhelmingly explained by differences in inherited trust. The lag in income per capita in developing countries is mainly explained by past economic development and time invariant factors, but trust also explains a significant share of the backwardness of those countries. We show that this result still holds when we look at other periods such as the 1910-2000 and when we control for the evolution of other institutions, cultural values, religion or education.

Although our paper combines ideas about trust and growth in an apparently novel way, it follows

a large literature on related topics. The first related literature analyzes the impact of social capital, including generalized trust, on various economic outcomes. Following Banfield (1958), Coleman (1988) and Gambetta (1988), Putnam (1993) reinvigorated research on social capital by showing tremendous dispersion in levels of trust and social capital across Italian regions as well as the ability of social capital to predict government performance. Knack and Keefer (1997) and La Porta et al. (1997) are early empirical studies showing that social capital is correlated with economic outcomes in a cross-section of countries. Jean-Philippe Platteau (2000) explores further this analysis with micro studies in developing countries. Recent studies have further advanced this area. Guizo et al. show how trust can affect financial development (2004), economic exchanges (2009) and various economic outcomes such as entrepreneurship (2006). Tabellini (2009) shows the relationship between historical variables, contemporaneous trust and development in Europe. Tabellini (2009), Philippe Aghion et al. (2010, 2010), Yann Algan and Pierre Cahuc (2009) and Nick Bloom et al. (2007) analyze the relationship between trust and institutions. Paul Zak and Knack (2001) and Patrick Francois and Jan Zabojnik (2005) provide theoretical models of the effect of social capital on economic development.

The second related literature is about the transmission of cultural beliefs or values. Rice and Feldman (1997) and Putnam (2000) show that the social capital of US-immigrants is correlated with civic culture in the home country. Guiso et al. (2006) show that the level of trust of US-immigrants is affected by the country of origin of their ancestors and highly correlated with trust in their home countries. Guiso et al. (2007), Nathan Nunn and Leonard Wantchekon (2009) and Tabellini (2009) present evidence of deep historical roots of contemporaneous variation in trust among regions of Europe or Africa. Alberto Bisin and Thierry Verdier (2001), Tabellini (2008), and Guiso et al. (2008) focus on explicit models of cultural transmission of preferences and beliefs within families. In the same vein, Paola Guiliano (2007), Raquel Fernandez (2007) and Fernandez and Allessandra Fogli (2009) use the beliefs of immigrants as a proxy for the beliefs of a home country. Fernandez (2007) uses attitudes toward women's work in the home country as an instrument for attitudes of US-immigrants. Fernandez and Fogli (2009) show that labor participation of US-immigrant women is influenced by the country of origin of their mothers. Algan and Cahuc (2007) use inherited family values of US-immigrants as an instrument for family values in the source country to explain cross-country employment heterogeneity.

The main conclusion of this literature is that values or beliefs such as trust have a persistent component. This does not mean that these beliefs are completely invariant though. As shown by Putnam (2000), social capital in general and trust in particular has declined dramatically in the United States since World War II. Ronald Inglehart and Christian Welzel (2005) document some changes in cultural values in a cross-section of countries by exploiting the various waves of the World Values Survey. At the theoretical level, Roland Benabou and Jean Tirole (2006) show how beliefs can evolve depending on the institutional environment. Guiso et al. (2008) show how a temporary shock

to the returns to trusting can deeply change the level of trust. Our paper combines these different ideas by recognizing that a component of trust can be inherited, but that trust can also evolve over long periods. The novelty of our paper is to identify empirically the time variation in beliefs, and to relate this time variation in beliefs to growth. We use the inherited trust of US immigrants to detect historical changes in inherited trust in the home countries. This allows us to analyze the relations between changes in inherited trust and changes in income per capita in the home countries.

The paper is organized as follows. Section 1 presents the estimation strategy and the data. The evolution of inherited trust is estimated in section 2. The effect of inherited trust on economic development is discussed in section 3. Section 4 provides robustness checks and section 5 concludes.

1 Estimation strategy and data description

1.1 Estimation of inherited trust

What is the impact of trust on macroeconomic performance? To answer this question, one has to deal with the issue of endogeneity at stake in the estimation of the following equation

$$Y_{ct} = \alpha_0 + \alpha_1 S_{ct} + \alpha_2 X_{ct} + F_c + F_t + \varepsilon_{ct}, \tag{1}$$

where Y_{ct} stands for income per capita in country c at period t. The variable S_{ct} measures the country average of trust of individuals who live in country c at period t, conditional on their individual characteristics such as age, gender, education, income, employment status or religious affiliation. X_{ct} denotes a vector of time-varying characteristics of the country. This vector might include the past economic development of the economy with the lagged values for income per capita or education. It might also include the evolution of the political environment and of other cultural norms such as religion. F_c stands for country fixed effects capturing all other time invariant specific features such as the legal origins or past institutions with long-lasting effects; F_t stands for period fixed effects common to all countries; ε_{ct} denotes an error term. The inclusion of country fixed effects ensures that the correlation between economic performance and attitudes is not driven by unobservable country time invariant specific factors.

The problem with equation (1) is that contemporaneous trust is likely to be correlated with the unobserved error term ε_{ct}. For instance, individuals who live in a more secure environment are likely to trust others more and to be more efficient. To tackle this issue, we need to explain how trust is determined. Studies by Bisin and Verdier (2001), Bisin et al. (2004), Guiso et al. (2008) and Tabellini (2008) stress the role of two main forces. A part of social attitudes is shaped by the contemporaneous environment and another part is shaped by inherited beliefs from earlier generations. This suggests

positing the following model

$$S_{ct} = \gamma_0 + \gamma_1 S_{ct-1} + \gamma_2 X_{ct} + \Phi_c + \Phi_t + \nu_{ct} \qquad (2)$$

where Φ_c and Φ_t stand for country and time dummies respectively; S_{ct-1} denotes the country average of trust of the previous generation in period $t-1$; ν_{ct} is an error term. In equation (2), it is assumed that current trust of individuals of working age are determined by all factors likely to influence economic performance and by the level of trust of the previous generations. Note that the assumption that the trust of previous generations are excluded from the economic performance equation (1) allows us to identify, together with the assumption that $\varepsilon_{ct} \perp S_{ct-1}$, the parameters of the system of equations (1) and (2). Data availability and the concern to proceed with periods separated by a sufficient large gap led us to consider, in the benchmark estimation of the model, two periods: 1935-1938 and 2000-2003. Alternative periods are considered in the robustness checks section.

The estimation of the system of equations (1) and (2) raises two main concerns.

First, we do not have any information on S_{ct-1}, since standardized cross-country databases on the level of trust of earlier generations are not available. At best, it is possible to go back only to the 1980s to get a measure of trust in a cross-section of countries using the World Values Survey. To cope with the lack of information on social attitudes of the previous generations, we proxy the inherited trust of people living in country c by the trust that the descendants of US immigrants have inherited from their ancestors coming from country c. More precisely, inherited trust is measured by the country of origin fixed effect in individual regressions of the contemporaneous attitudes of US descendants of immigrants. This yields an estimate of the term $\gamma_1 S_{ct-1}$ in equation (2), that we use as a proxy for inherited trust. This strategy leads us to estimate a single equation of the form (1), where S_{ct} is replaced by our proxy of inherited attitudes. The coefficient associated with inherited trust then reflects the correlation between inherited trust and contemporaneous income per capita.

Second, even if we have a good proxy for inherited trust, the correlation between inherited values and contemporaneous economic outcomes can be interpreted as a causal effect from inherited trust to contemporaneous outcomes only if these two variables are not co-determined by common factors. For example, it is possible that changes in inherited trust and income per capita are driven by changes in initial economic conditions, in institutions or in any other time varying factors. To deal with this issue, we take two avenues. First, we control for other changes in the economic, political and social environments. Second, we implement robustness checks in which we consider long time lags between inherited trust of US-immigrants and contemporaneous income per capita in the home country. It thus becomes unlikely that changes in inherited trust are driven by changes in variables that could directly impact both inherited trust and contemporaneous economic outcomes.

1.2 Data description

Economic performance is measured by income per capita expressed in 1990 US dollars. We use the Maddison database which covers the period 1820-2003.

Trust of individuals born in the United States are provided by the General Social Survey database (GSS). This database covers the period 1972-2004 and provides information on the birth place and the country of origin of the respondent's forebears since 1977. The GSS variable for the country of origin reads as follows: "From what countries or part of the world did your ancestors come?". The individual can report up to three countries of origin by order of preference. Two respondents out of three report only one country of origin. We select the GSS ethnic variable that captures the country of origin to which the respondent feels the closest to make the comparison between country of origin interpretable. We have a large number of observations for at least 24 countries or continents. The country of origins cover almost all European countries: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Russia, Spain, Sweden, Switzerland, United Kingdom and Yugoslavia. The GSS database also reports information for Canada, Mexico and India and the category African origins. We only present the country of origins displaying at least more than 15 observations in our estimations. The number of observations is reported in Table A1.

We measure the path of cultural transmission of trust by using the waves of immigration. Respondents are asked if they were born in the United States and how many of their parents and grand-parents were born in the country. The answers to the question of parents' birthplace are scaled 0 if both parents are born in the US, 1 if only the mother was born in the US, and 2 if only the respondent's father was born in the country. The answers to the grand-parents' birthplace are scaled from 0 to 4 indicating the number of grandparents born in the US. This information makes it possible to disentangle four potential waves of immigrations: fourth-generation Americans (more than 2 grand-parents born in the US and all parents were born in the US), third-generation Americans (at least two grand-parents immigrated to the US and all parents were born in the US), second-generation Americans (at least one parent born abroad) and first-generation Americans.

Trust is measured by the following question: "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?". The answers are given on a scale from 1 to 3, which corresponds to "Most people can be trusted", "Can't be too careful" and "Depends". We construct a trust indicator equal to one if the respondent answers that people can be trusted and 0 if he considers that one cannot be too careful or that it depends. We group together the two latter responses to make a clear separation between high trusting individuals as opposed to moderate or low trusting ones. This will also allow a direct mapping with the trust question in the

World Values Survey (WVS). The results are hardly affected by the treatment of the answer "Depends" in the GSS. As shown by Table A1, the share of answers "Depends" is marginal for almost all country of origins. We have run robustness checks by dropping the answers "Depends" or by grouping this answer with the answer "Most people can be trusted", with the same conclusions. The results are reported in the Appendix.

Trust in the home country is measured by using the World Values Survey (WVS) database. The WVS covers all the set of countries defined as potential country of origin in the GSS database. The trust question in the WVS has exactly the same wording as that of of the GSS: "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?". But the WVS only allows for two answers: 1 for : "Most people can be trusted", and 0 for "Can't be too careful". Table A1 reports the number of observations and the decomposition of the trust question for the WVS. We select the wave 2000 of the WVS to provide a benchmark comparison with inherited attitudes in 2000 in the GSS. We use the wave 1995 to get information for Switzerland and Norway.

2 Inherited trust of US-immigrants and trust in the home country

2.1 Inherited trust

This section documents how we estimate the evolution of trust transmitted from the source country over the 20th century. This analysis is based on the GSS. We have to specify the lag that we impose between the inherited trust and the contemporaneous economic outcome at date T. We take a benchmark lag of 25 years, which implies that we focus on attitudes transmitted before the date $T - 25$. We also assume a gap of 25 years between two generations. Accordingly, we focus on inherited trust of: i) second generation Americans born before $T - 25$, since the parents of the second-generation immigrated before $T - 25$; ii) third-generation Americans born before $T - 25 + 25$, since the grandparents of the third-generation born before T immigrated before $T - 25$; and iii) fourth generation Americans born before $T - 25 + 50$.[2] We document below the estimates of inherited trust for the periods 1935-1938 and 2000-2003, with a minimum lag of 25 years between inherited trust and income per capita. We look at different periods and lags structure in the robustness checks section and in the Appendix.

We start by focusing on inherited trust in the two periods 1935-1938 and 2000-2003 (1935 and 2000

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[2]Note that in the case of fourth-generation immigrants, we consider individuals born after date T. Nonetheless they have inherited the attitudes prevailing before date $T - 25$. We consider different generations of immigration to get the maximum of observation on inherited trust before date $T - 25$. But we show that our results still hold when we focus on sub-groups of generation of immigration.

henceforth). We measure inherited trust for these periods by using the transmission pattern described above. We assume that all people alive in a period may influence the income per capita of the period. Therefore, inherited trust in 1935-1938 are those of second-generation Americans born before 1910 (i.e. whose parents arrived for sure one generation before 1935), of third generation Americans born before 1935 and of fourth generation Americans born before 1960. In the same way, the level of inherited trust in 2000-2003 corresponds to the trust inherited by: second-generation Americans born between 1910 and 1975, by third generation born after 1935 and by fourth generation Americans born after 1960. This decomposition excludes any overlap in the inherited trust of the two groups. Table A2 reports the number of observations for these groups. Table A3 reports the sample characteristics.

Table I reports the OLS estimates of inherited trust for the period 1935 and 2000. The probit estimates yield very similar results. We run a single regression by grouping together the two periods and we interact the dummy period with the country of origin dummy to distinguish inherited trust in 1935 and 2000. Trust inherited in 1935 by the Swedish-Americans is used as the reference group. In addition to the country-of-ancestry dummies, we control for age (age squared), sex, education, employment status, religion and the income category. The variable income varies from 1 to 12, a higher value indicating a higher income category.[3] As a robustness check, we have also included the education of the parents to control for the fact that inherited trust might transit through parents' human capital rather than through cultural transmission. The number of observations is lower, but without any change in the results. All estimations include year dummies to control for specific temporal shocks. All standard errors are corrected for clustering at the country level.

Column 1 reports the estimates for inherited trust in 1935, relative to trust inherited by Swedish-Americans in 1935. Having forebears coming from a different country of origin than Sweden has a statistically significant effect on inherited trust. For some countries of origin like United Kingdom, the effect is statistically even more significant than the one found for the period 2000. This result suggests that inherit trust is strongly persistent. The trust inherited in 1935 from Continental European or Anglo-Saxon countries tends to be higher than that inherited from Sweden. The probability to trust others is 4 percentage points higher for French-Americans, 4.3 percentage points higher for British-Americans and 2.4 percentage points higher for German-Americans. Inherited trust in 1935 is also higher for some Eastern European countries like Czech Republic or Hungary. In contrast, inherited trust from Mediterranean countries, Latin American countries, Africa, China, India is lower than that of Swedish-Americans in 1935.

Column 2 reports trust inherited in 2000 relative to trust inherited by Swedish-Americans in 1935. Inherited trust displays substantial changes between the two periods. First, the Swedish-Americans have inherited higher trust in 2000 relative to the period 1935. Second, inherited trust from Continental

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[3]The GSS also reports information on total wealth, but for too few households to get a representative sample.

European countries, and to a lesser extent from UK, has deteriorated over the period. Trust inherited in 2000 from French ancestors is 4.7 percentage points lower relative to trust inherited from Sweden in 1935. Inherited trust has decreased even more among the immigrants from Eastern European countries and Mediterranean countries. In contrast, inherited trust has increased for individuals with Nordic ancestors. The effect of other individual characteristics are reported in Table II. Trust increases with age, education, and the level of income, but religious affiliation turns out to have no impact.

Explaining changes in inherited trust within countries is beyond the scope of our paper. The set of potential candidates is quite wide. One might first think about the role of national shocks such as wars. The ancestors of the current US respondents are likely to have undergone very different national crises. The ancestors who have transmitted their trust for the period 1935 have mainly migrated before World Wars I and II. The social attitudes of immigrants from countries deeply affected by these crisis, like France, Germany or Eastern European countries, might have deteriorated between this period compared to descendants from Sweden, since this latter country is one of the few European countries which was least affected by these traumatic events. This finding would be consistent with those obtained by Alesina and Eliana La Ferrara (2002) and Nunn and Wantchekon (2009) who show that a history of traumatic experience is associated with low trust.

Other potential explanations of changes in trust might be linked to institutions or economic conditions. Sweden was much poorer than other European countries at the end of the 19th century and mass emigration to America became the only way to prevent famine and rebellion: over 1 percent of the population emigrated annually during the 1880s. Besides, Sweden was marked in the early 1900s by a world record for days lost in labor disputes and strong class conflicts. This suggests a low level of generalized trust. But the leaders ultimately reached a agreement that ended the labor conflicts and led to the creation of the Swedish welfare state. The same holds true for Denmark at the end of the 19th century. In contrast, most Continental European, Eastern European and Mediterranean countries were affected by the rise of totalitarianism in the 1930s, and Eastern European countries were ruled by communist regimes after World War II. Such events might have deep effects on social capital. Putnam (1993) stresses the long-term negative effect of authoritarian regimes and social capital, with an application to the history of Italy. Alesina and Nicola Fuchs-Schuendeln (2007) show that communism had deeply changed a wide set of beliefs by comparing East and West Germany. In the same vein, Aghion et al. (2010), and Aghion et al. (2010) show that some political and economic institutions might have crowded out trust in European countries relative to Nordic countries.

2.2 Correlation between inherited trust and trust in the home country

This section documents the relationship between inherited trust and trust in the home country. If there is a cultural transmission of trust within families, we should find a statistically significant

correlation between inherited trust of the descendants of US-immigrants and trust in their country of origin. Besides, if trust has evolved in the country of origin over the century, the correlation between the trust inherited at the beginning of the 20th century and the level of trust in the home country nowadays should be weaker.

We estimate the relationship between inherited trust and trust in the home country in the following way. We run individual regressions on the trust question of the GSS as in the previous section. But we replace the country of origin fixed effect by the average trust in the home country, calculated from the wave 2000 of the WVS. We run these estimates on the same samples and by using the same controls as in the previous estimates.

Table III - Column 1 reports the results for the period 2000.[4] The correlation between inherited trust in the US and trust in the home country is statistically significant at the 1 percent level. Column 2 reports the results when we regress inherited trust in 1935 on trust in the country of origin in 2000. The correlation is no longer statistically significant. This result suggests that the trust transmitted in 1935 from the source country was different from the level transmitted in 2000. Note that an alternative interpretation of this weak correlation could be a convergence in inherited trust of US-immigrants as the time spent in the host country increases. Yet the previous section has shown that this explanation is unlikely since the coefficients of the country of origin measuring inherited trust in 1935 were statistically highly significant. Column 3 confirms this result by focusing on inherited trust in 2000 for the sub-group of fourth generation immigrants (born after 1960). The correlation with trust in the home country is statistically significant at the 5 percent level.[5]

Figures 1 and 2 provide a complementary picture for this result by displaying the scatterplot of trust in the home country in 2000 against inherited trust of US-immigrants for the periods 2000 and 1935 respectively. Swedes and descendants of Swedish-immigrants of the corresponding periods are taken as the reference group. We control for age, gender, education, income, employment status and religious affiliation. The correlation between trust in the home country in 2000 and inherited trust in 2000 of US-immigrants is fairly high. The only outlier is India and the coefficient of determination is

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[4]Table III presents benchmark estimates that group together different generations of immigration of different ages to measure inherited trust for a given period. The Appendix reports estimates by sub-groups of waves of immigration.

[5]An additional interpretation could be that the selection of immigrants from the home countries varied over the twentieth century, and that this weakens the relationship between trust in the home country and inherited trust of US immigrants. In particular, the incentives for immigrating from Eastern European countries were likely to be different before and after World War II. Changes in trust could thus be linked to changes in the sample selection of immigrants. However we can get a sense of this potential concern by comparing trust in the home country and inherited trust in the US during the same period 2000, the only period where trust and inherited trust can be observed jointly. Table III shows that there is a strong correlation between trust in the source country and inherited trust of US immigrants from their source country for this period. Moreover, Table III - Column 3 shows that for the period 2000, trust in the source country is correlated not only with trust inherited by second-generation immigrants, but also with trust inherited by fourth generation immigrants whose forebears arrived in the US much before those of second generation immigrants. This result suggests that the changing time pattern of the selection of immigrants is not a key issue in our analysis.

0.19. In contrast, no clear correlation pattern appears in Figure 2 when we look at inherited trust in 1935. Most of the continental European countries or Anglo-Saxon countries display higher inherited trust relative to Sweden in 1935, while trust in the source country is lagging behind trust in Sweden in 2000.

A last important question is whether these different correlations are just a product of luck or if they truly capture inherited values from the country of origin. To address this issue, one can run a regression on the GSS of the trust levels of, for example, Italian Americans, on the average trust of Chinese in China calculated with the WVS 2000. If one generalizes this test to all countries of origin and find a positive and statistically significant correlation between inherited trust from country i and contemporaneous trust in country $i' \neq i$, one would suspect spurious correlation in these estimates. To explore further this issue, we implement the following test. We draw randomly from a uniform distribution the home country of the US-immigrants. We then regress the individual trust question in the GSS on the average trust of a home country picked up randomly from the group of 24 potential source countries. We still control for age, education, gender, employment status, income category and religious affiliation.

Table IV reports the result for inherited trust in 2000 and 1935. The correlation turns out to be negative and close to zero for the period 2000, and slightly positive for the period 1935. In both cases, the correlations are not statistically significant, suggesting that our previous estimates were not driven by spurious correlation.

3   The effect of inherited trust on growth

This section presents the estimates of the impact of inherited trust on growth. We first analyze the cross-country relationship between inherited trust and income per capita. Then, we focus on the effect of changes in inherited trust on changes in income per capita over time.

3.1   Cross-country correlations between inherited trust and income per capita

We begin with cross-country correlation between inherited trust and income per capita in the countries of origin. The dependent variable is the income gap relative to Sweden in 1935 and in 2000. The main explanatory variable is the level of inherited trust measured by the coefficient associated with the country of origin fixed effect in the GSS. We get these coefficients by running OLS regressions separately for 1935 and 2000, taking the Swedish-Americans in 1935 and 2000 as the reference group respectively.

Figure 3 shows the cross-country correlation between inherited trust and income per capita in 2000. The correlation is positive and large. 54 percent of the cross-country heterogeneity in income
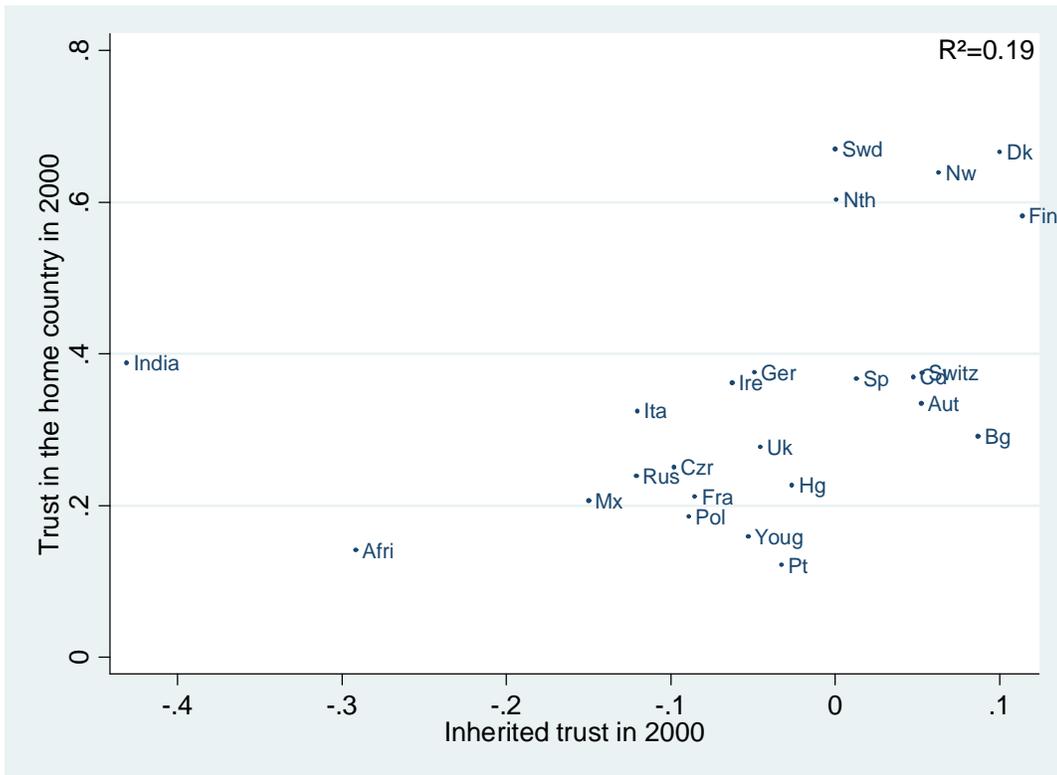
Figure 1: Correlation between trust in the home country in 2000 and inherited trust of descendants of US-immigrants for the period 2000. Source: WVS 2000 and GSS 1977-2004.
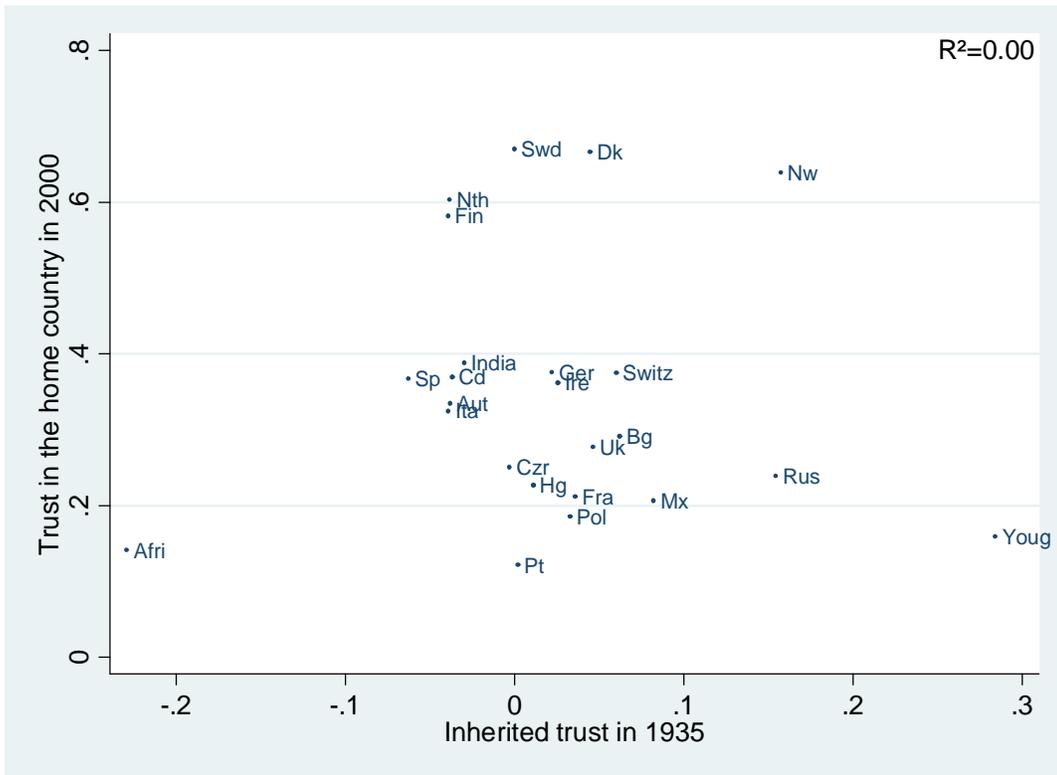
Figure 2: Correlation between trust in the home country in 2000 and inherited trust of descendants of US-immigrants for the period 1935. Source: WVS 2000 and GSS 1977-2004.

per capita relative to Sweden is associated with differences in inherited trust. When Africa and India are excluded, the coefficient of determination is still 0.38.

Table V reports the corresponding OLS regression. Column 1 reports the bottom down regression without any controls. The correlation between inherited trust and income per capita is statistically significant at the one percent level and is economically sizeable. Inherited trust explains more one-third of the cross-country heterogeneity in economic development.

Column 2 controls for lagged income per capita in 1870 and 1930, using Angus Maddison's data-base. The strong dependence of current economic development on initial economic conditions is naturally a well-established fact. Moreover, the initial economic development in the home country at the time immigration took place could codetermine both the current income per capita in the home country and the inherited trust of US immigrants' descendants. Column 2 shows that the correlation between inherited trust and income per capita is lowered by almost half when controlling for the lagged value of income per capita. But the correlation is still statistically significant at the one percent level, and the impact is still economically sizeable as discussed below.

Column 3 adds contemporaneous political institutions using the synthetic variable Polity2 from the Polity IV data set. This variable is originally scaled between -10 and 10. Higher values correspond to more democratic political institutions. Since all variables in our regression are measured relative to Sweden, we rescale the polity2 variable between 0 and 20 and look at the difference with Sweden. We take the average of this indicator over the periods 1935-1938 and 2000-2004. Data are missing for India. The correlation between inherited trust and income per capita is still statistically significant at the 1 percent level.

Column 4 excludes Africa and India, which appear as potential outliers in the previous graphs. Inherited trust remains statistically significant at the 1 percent level and the effect is of the same order of magnitude.

3.2 Changes in inherited trust and changes in income per capita

We turn to the correlation between changes in inherited trust and changes in income per capita over time. Figure 4 reports a scatterplot of the changes in income per capita between 1935 and 2000 against the changes in inherited trust between the same periods, relative to Sweden. The change in inherited trust is measured by the change in the value of the country of origin fixed effects in separate regressions on the trust question for the periods 1935 and 2000. The correlation is positive and steady, forty five percent of the change in income per capita is associated with change in inherited trust.

Table VI reports the within effect of inherited trust on economic development controlling for country fixed effects. Column 1 reports the bottom down estimates without additional control. Change in inherited trust is strongly correlated with change in income per capita. Column 2 controls for
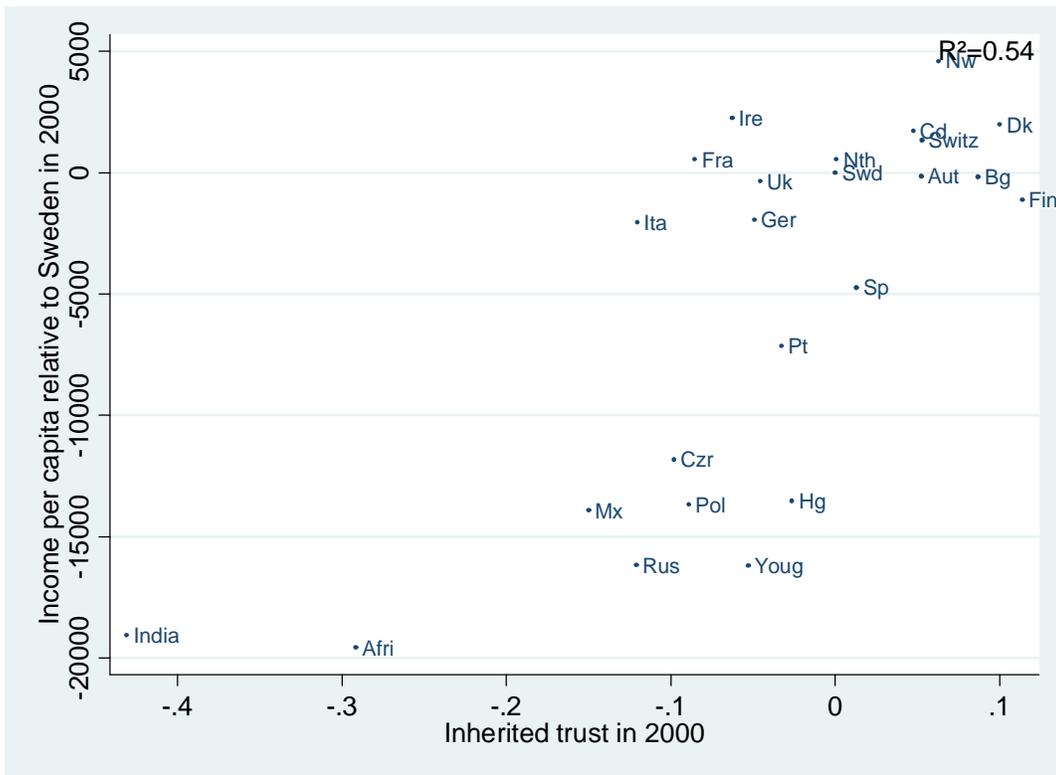
Figure 3: Correlation between income per capita and inherited trust in 2000, relative to Sweden. Sources: Maddison database and GSS 1977-2004.

changes in initial income per capita. The coefficient associated with inherited trust is lowered but still significant at the one percent level. Column 3 checks for potential outliers by excluding Africa. We have also checked the results when Nordic countries (Denmark, Finland, Norway) are excluded, with the same conclusion. Column 5 controls for political institutions. Column 6 report the results using an alternative measure of income per capita in 1935 and 2003. To smooth out short-run fluctuations, we also calculated income per capita as a ten years average (instead of four years average) 1928-1938 and 1994-2004 . For each specification, the correlation between change in inherited trust and change in income per capita is significant at the 1 percent level.

Quantitative effects of inherited trust

The results displayed in Table VI imply that the impact of inherited trust on income per capita is economically sizeable. Figure 5 displays the change in income per capita in period 2000-2003 that countries would have experienced if the level of inherited trust in a given country had been the same as trust inherited from Sweden. This analysis is based on the fully-fledge estimates reported in Table VI - Column 5 for which country fixed effects, lagged value of GDP per capita and contemporaneous political environment are controlled. GDP per capita in 2000 would have been increased by 546 percent in Africa (not reported) if the level of inherited trust had been the same as inherited trust from Sweden. Africa and poor countries are obviously extreme cases. It is well documented that these developing countries are lacking interpersonal trust. As Banfield (1958), Marcel Fafchamps (1996) or Platteau (2000) argued, traditional societies are characterized by pervasive intra-group trust but low inter-group trust. The functioning of markets is drastically limited when trust is circumscribed to small groups. Figure 5 shows that inherited trust also has a non-negligible impact on GDP per capita in Eastern European countries and Mexico. Income per capita would have increased by 69 percent in Russia, 59 percent in Mexico, 30 percent in Yugoslavia, 29 percent in Czech Republic and 9 percent in Hungary, had these country have inherited the same level of trust as Sweden. The effect, if less important, is also sizeable in more developed countries. Income per capita would have been up by 17 percent in Italy, 11 percent in France, 7 percent in Germany and 6 percent in United Kingdom if these countries had the same level of inherited trust as Sweden.

The relative role of convergence, time invariant factors and inherited trust

What is the impact of inherited trust relative to the economic and political environments and to time-invariant factors? One thing we know about growth is that it is a dynamic process and that changes prior to 1935 may be associated with long periods of transition dynamics, so that it is very misleading to think that changes in outcomes between 1935 and 2000 need to be associated with changes in underlying factors only after 1935. Accordingly, our estimates control for the lagged income per capita in the 1870s and the 1930s for explaining income per capita in 1935 and 2000 respectively.

We can thus calculate the predicted changes in income per capita if the countries were starting from the same initial economic development as Sweden, assuming as given other time-invariant institutions, social attitudes and political institutions.

Figure 6 shows the predicted increase in income per capita in 2000. Africa would have an income per capita 529 percent higher while Russia or Mexico would have an income per capita 113 percent and 74 percent higher. But countries which used to be more developed than Sweden, like United Kingdom or France, would have experienced a drop in income per capita by 22 percent and 5 percent respectively.

Figure 7 reports the contribution of time invariant factors. We calculate the predicted increase in income per capita if the countries had the same country fixed effect as Sweden. Africa would have an income per capita 265 percent higher. Eastern European countries would have undergone an increase by 200 percent in Yugoslavia, 168 percent in Russia, 82 percent in Hungary and 78 percent in Poland. Mexico would have increased its income per capita by 92 percent. The effect of time invariant factors is thus of the same order of magnitude as initial economic development for this set of countries and three times as big as the effect of inherited trust in general. The role of time invariant factors is much lower among more advanced European countries. For example the income per capita would have been up only by 4.2 percent and 5.7 percent in Mediterranean countries like Italy or Spain. Income per capita would have been even lower in France.

As a conclusion, the changes in income per capita in developed countries, relative to Sweden, are overwhelmingly explained by differences in inherited trust. This result can be understood by the fact that these countries have economic environments and political institutions close to those of Sweden. The main differences are explained by the heterogeneity in trust. Initial economic factors and invariant factors explain in general most of the differences in income per capita of developing countries relative to Sweden. This result is consistent with the growth literature stressing the role of initial economic development and of invariant factors, such as colonial institutions (Acemoglu et al., 2001), legal origins (Laporta et al., 2008) or geography (Sachs, 2005). But our results show that the evolution of trust has also an economically tremendous impact on income differences in these countries, which has not been accounted for so far. In contrast, changes in political institutions do not play a significant role when inherited trust and initial economic development are controlled for.[6] The next section check for the robustness of these results by including other time-varying factors such as religion, education or other inherited cultural values and by addressing the issue of omitted variables.

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[6] The variable political institution is always associated with a negative sign since Sweden displays the highest value of Polity IV in 1935 and 2000 and the variable is expressed relative to Sweden.
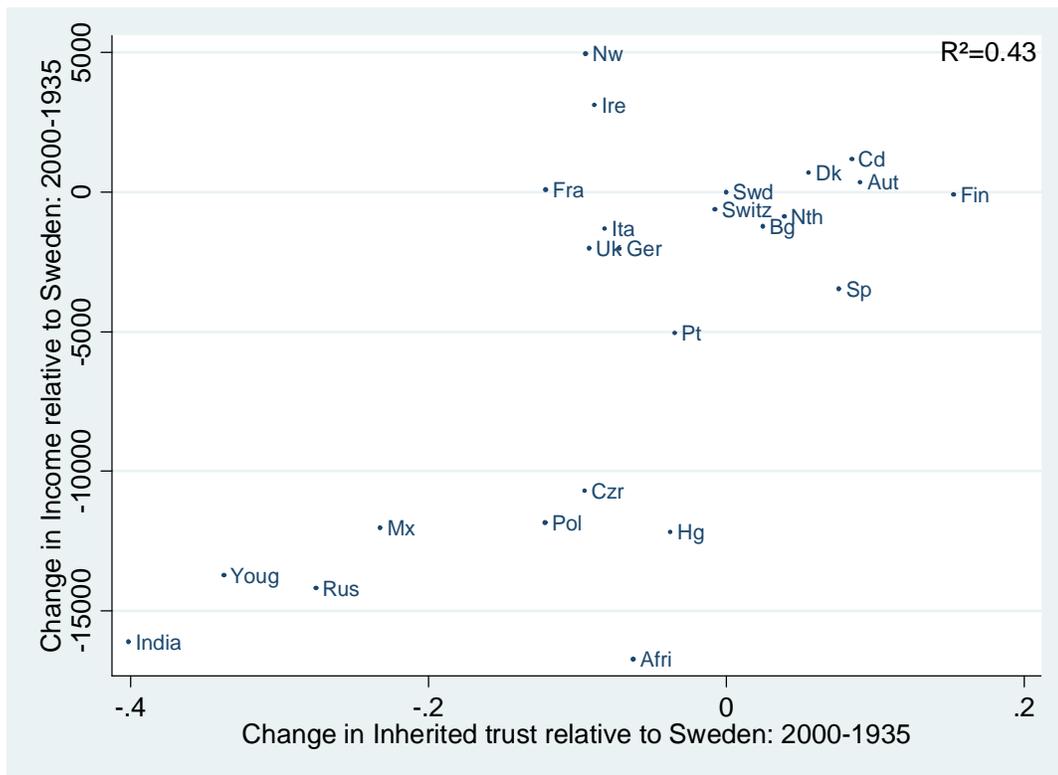
Figure 4: Correlation between change in income per capita and change in inherited trust between 2000 and 1935, relative to Sweden. Sources: Maddison database and GSS 1977-2004.
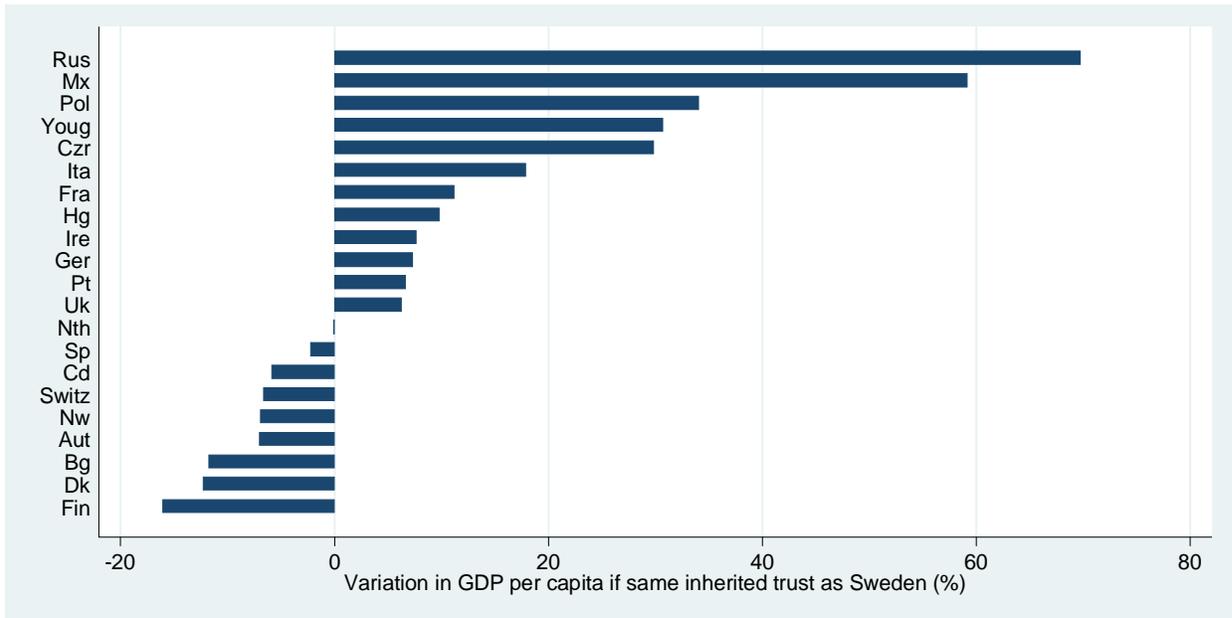
Figure 5: Predicted variations in GDP per capita in 2000 if inherited trust had been the same as inherited trust from Sweden, controlling for lagged GDP per capita, contemporaneous political environment and country-fixed effects
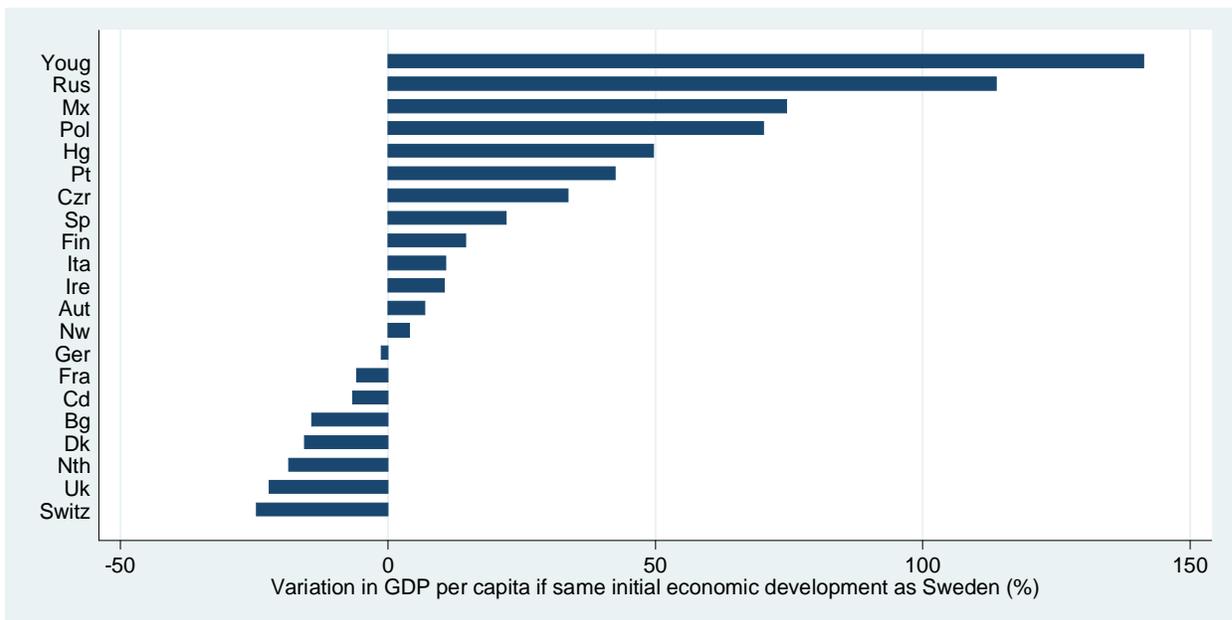
Figure 6: Predicted variations in GDP per capita in period 2000 if GDP per capita in the 1930s had been the same as in Sweden, controlling for inherited trust, contemporaneous political environment and country-fixed effects
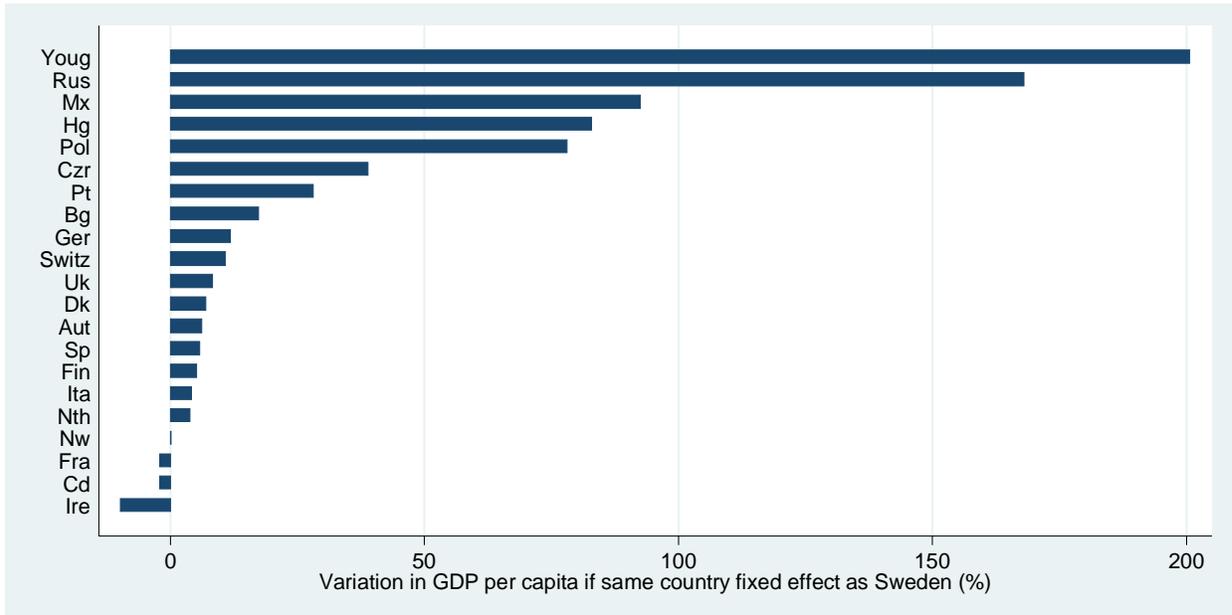
Figure 7: Predicted variations in GDP per capita in 2000 if the country-fixed effect had been the same as that of Sweden.

4 Robustness checks

The validity of our approach relies on the assumption that the relationship between inherited trust and contemporaneous income per capita is not driven by omitted variables. Even if the previous section imposes a minimum lag of 25 years between inherited trust and income per capita, and control for both time-invariant factors, past economic environment and political institutions, the exogeneity of inherited trust might still be of a concern. This section provides various robustness checks to address this issue.

4.1 Longer generation gaps

In the main section, we deal with omitted variables by including country fixed effects in the income per capita equation. This does not, however, completely solve the concern of omitted variables because unobservable time-varying components might be correlated with both changes in inherited trust and changes in income per capita in each country. One may think of specific time-varying factors affecting both inherited trust in the host country and income per capita in the home country. We deal with this issue by increasing the lag between inherited trust and contemporary income per capita. This makes it less likely that unobservable time-varying component could drive changes in inherited trust and current income per capita in the source country. The previous estimates assume a lag of at least

one generation, namely at least 25 years between inherited trust and contemporaneous income per capita. We now increase this lag to two generations, which implies a gap of at least 50 years. To get enough observations, we include in the second, third and fourth generation immigrants individuals whose at least one parent is born in the U.S. .

This analysis is run for the periods 1935 and 2000. In the appendix, we increase the lag up to three generations, implying a gap of at least 75 years. Because of the limits of the data set between 1935-2000, we use the period 1950-2000 to explore further the effect of a gap of three generations, as shown in the appendix.

According to our previous estimation strategy, imposing a minimum lag of 50 years between the ancestors' wave of immigration and contemporaneous income per capita leads us to select the following two groups. To explain the income per capita in 1935, we select second-generation descendants of the immigrants born before 1885, third generation descendants of the immigrants born before 1910 and fourth generation descendants of the immigrants born before 1935. For the period 2000, we focus on the attitudes of second-generation US-immigrants born before 1950 (and after 1885 to avoid any overlap between these groups of second-generation immigrants), third-generation immigrants born after 1910 (and before 1975) and fourth generation born after 1935 (and before 2000). We only select countries of origin with more than 10 observations in the individual regressions on the trust question, leading us to focus on 16 countries of origin. The samples of the different groups are reported in Tables A3 and A4. Inherited trust is still measured by running OLS estimates on the GSS trust question and controlling for age, education and gender. Inherited attitudes of Swedish-Americans in 1935 are taken as the reference group.

Figures 8 and 9 report the correlation between income per capita and inherited trust when we impose a lag of at least 50 years between the inherited trust of the US-immigrants' ancestors and income per capita in the home country. The correlation remains steady, the coefficient of determination being 0.25 and 0.59 for the periods 1935 and 2000 respectively.

Table VII reports the corresponding OLS regressions. Column 1 reports the results for the cross-country estimates. Column 2 shows the within estimates without any control. Column 3 includes the lagged income per capita and the current political constraint. The coefficient associated with inherited trust is statistically significant at the one percent level in cross-country, and at 5 percent in time variation.

4.2   Longer period gaps: income per capita between 1910 and 2000

To make sure that our previous results do not rely on specific features of the period 1935-2000, we look at different periods. In particular we consider a wider gap by focusing on income per capita in 1910
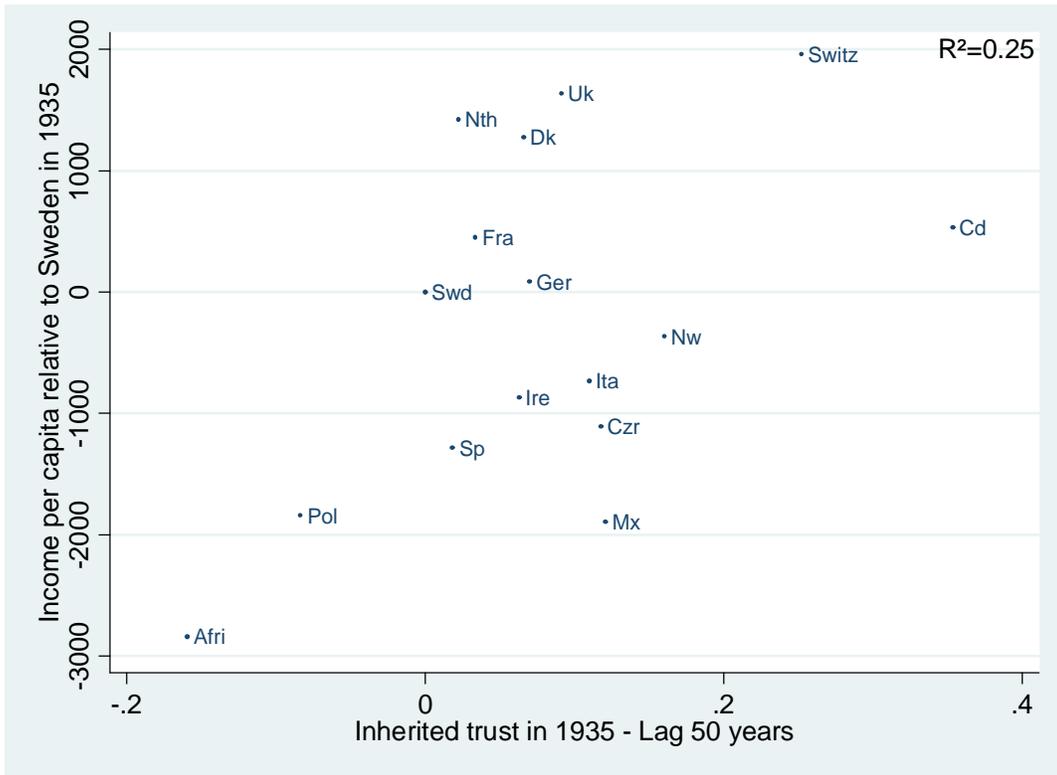
Figure 8: Correlation between income per capita and inherited trust in 1935, relative to Sweden. Minimum 50 years lag between ancestors' immigration wave and contemporaneous income per capita. Sources: Maddison database and GSS 1977-2004.
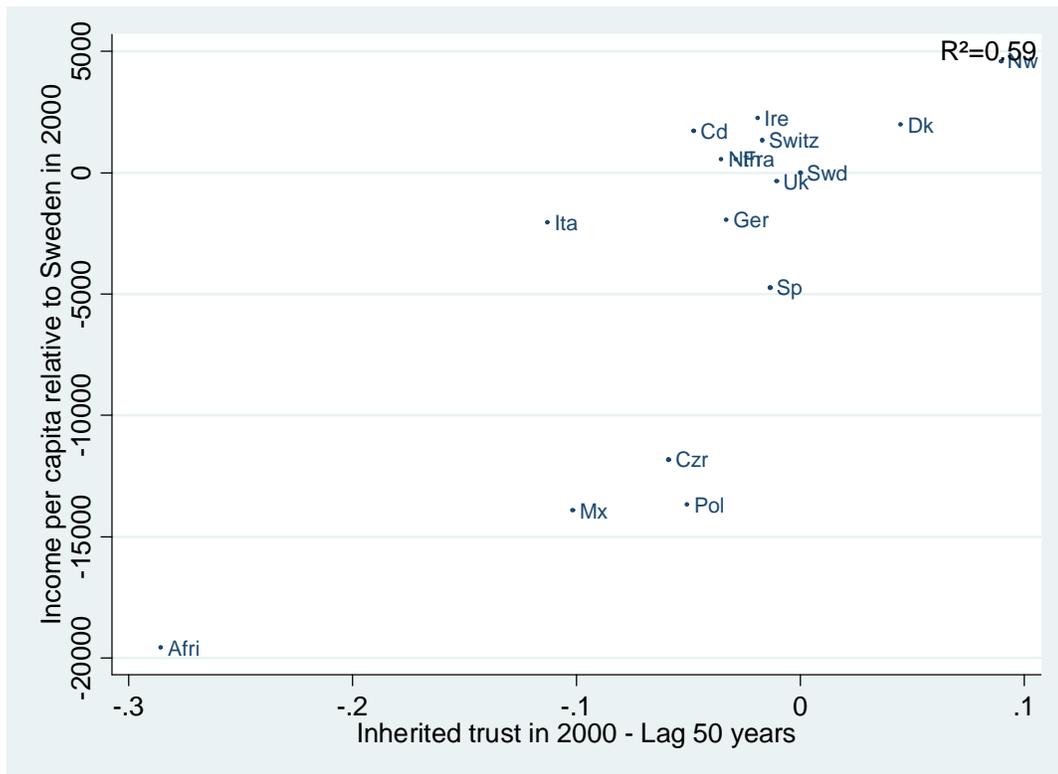
Figure 9: Correlation between income per capita and inherited trust in 2000, relative to Sweden. Minimum 50 years lag between ancestors' immigration wave and contemporaneous income per capita. Sources: Maddison database and GSS 1977-2004.

and 2000. These two periods are separated by the main major events of the 20th century, including the two World Wars, the 1929 crisis, and the emergence of conflicting ideologies in the world. Besides, the period 1910 provides us with enough observations to estimate inherited attitudes from almost all countries.

Inherited trust in 1910

We estimate inherited attitudes in 1910 by using exactly the same cultural transmission model as above. To get enough observations for the period 1910, we use a lag of at least 25 years between inherited attitudes and contemporaneous income per capita and we include in the second, third and fourth generation immigrants individuals whose at least one parent is born in the country. We focus on inherited trust of second generation individuals born before 1885, third-generation born before 1910, and fourth generation born before 1935. Inherited attitudes in 2000 are similar to that estimated in the previous section. The sample of individual characteristics are reported in Table A3. We only select countries of origin with more than 10 observations in the individual regressions on the trust question. This leads to work with a sample of 15 countries per period in the macroeconomic estimates of income per capita.

Inherited trust is measured by running OLS estimates for the periods 1910 and 2000 and by controlling for age, education, gender. The results are unchanged when controlling also for income, employment and religion, but based on fewer observations. Inherited attitudes of Swedish-Americans in 1910 are taken as the reference group. The coefficients are reported in Table VIII and standard errors are clustered at the country level. The gap in inherited trust between the periods 1910 and 2000 is even sharper than the one previously found between the periods 1935 and 2000. Among the descendants of early immigrants, the level of trust inherited from France, Germany and United Kingdom was much higher than that transmitted from Sweden in 1910. Inherited trust from Germany and UK were 8.3 percentage points and 9.7 percentage points higher relative to Swedish-immigrants. The only countries of origin from which inherited trust in 1910 is lower than that of Sweden are Africa and Poland. The effect of the country of origin associated with inherited trust in 1910 is almost always statistically significant at the one percent level. Strikingly, British, French or German descendants of immigrants have more significant differences in inherited trust, relative the descendants of Swedish immigrants, in 1910 than in 2000.

Inherited trust and economic development between 1910 and 2000

Figure 10 reports the correlation between inherited trust and income per capita in 1910, relative to Sweden. The correlation is positive and steady, the coefficient of determination is equal to 0.33. European continental countries like France, Germany and Netherlands, and Anglo-Saxon countries like UK were more economically advanced and with higher social attitudes than Sweden by that time.
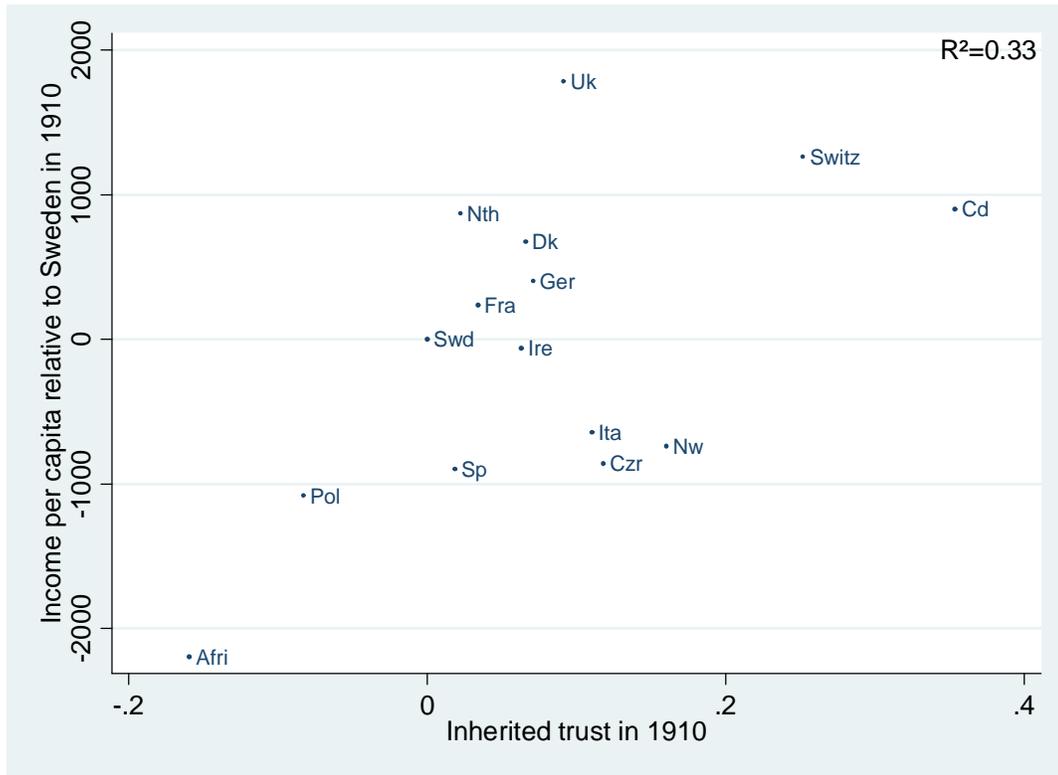
Figure 10: Correlation between income per capita and inherited trust in 1910, relative to Sweden. Sources: Maddison database and GSS 1977-2004.

Table IX reports the regressions including both periods 1910 and 2000 at the cross-country level. Column 1 shows the bottom down regression without additional controls. Column 2 includes lagged income per capita in 1870 and 1930. Column 3 adds contemporaneous values of political institutions (averages over the period 1910-1913 and 2000-2003), all measured relative to Sweden. The cross-country correlation is statistically significant at the one and five percent level.

Table X reports the correlation between change in inherited trust and change in income per capita between 1910 and 2000 by controlling for country fixed effects. Column 1 shows a statistically significant and economically sizeable relationship. Column 2 includes the lagged value of income per capita. The correlation between inherited trust and income per capita is still statistically significant at the 5 percent level. We provide additional tests below.

4.3   Additional controls

We can also check for omitted variables by including additional controls. Our previous regressions control for both time-invariant country effects and time-varying political and economic factors. But it

might be the case that changes in inherited trust capture changes in more general cultural attitudes or social norms. We allow for this possibility by looking at other cultural attitudes that might matter for explaining growth. We show the result for the periods 1935 and 2000, when imposing a minimum lag of 25 years in inherited attitudes, since these periods provide the maximum number of observations. We have run the regressions for the periods 1910-2000 and 1935-2000, with a lag of at least 50 years in inherited attitudes. These estimates yield the same conclusions.

We first include additional measures of social attitudes by controlling for religion and education. We measure the share of non-religious persons per country in the 1900s and 2000s by using the Robert Barro and Rachel McCleary database on religion. We include the measure of fractionalization in religious groups for this period, measured by the Herfindal index. Besides, we also control for an historical measure of education in the country of origin by measuring primary school enrollment, taken from Aaron Benavot and Phyllis Riddle (1988). We use the country level in 1870-75 and 1935-1940, and express school enrollment relative to Sweden.

Second, we look at the evolution of other inherited attitudes toward work, family, the government and business. We measure these attitudes by using the GSS and estimating their inherited component in 1935 and 2000. We measure the belief of the respondent regarding important driving forces of success in life by using the GSS question: "Some people say that people get ahead by their own hard work; others say that lucky breaks or help from other people are more important". The answers are given on a scale of 1 to 3, which correspond to "Hard work most important", "Hard work and luck equally important", "Luck most important". We create a variable equal to 1 if the individual believes in hard work and to 0 otherwise. We also look at traditional family values regarding gender roles with the question "Do you approve or disapprove of a married woman earning money in business or industry if she has a husband capable of supporting her?". The answer is a dummy variable equal to 1 if the respondent approves and to 0 otherwise. The main question on the role of government in the GSS reads "Government should do something to reduce income differences between rich and poor or government should not concern itself with income differences". The answers are scaled from 1 to 7, lower scores indicating preference for government intervention. We measure attitudes toward business by using the following question: "Do you have a great deal of confidence, only some confidence, or hardly any confidence at all in major companies". We still measure inherited attitudes relative to Swedish-American in 1935 and 2000 by running OLS estimates on the two periods and controlling for age, gender, education, income, employment status and religion.

Table XI reports the effect of changes in inherited trust when we include other inherited social attitudes. Column 1 includes inherited attitudes towards work, Column 2 includes inherited confidence in business, Column 3 includes inherited attitudes in favor of government intervention to reduce inequality and Column 4 controls for inherited attitudes in favor of working women. None of the

correlations between these inherited attitudes and income per capita are statistically significant. In contrast, changes in inherited trust remain statistically significant at the 1 or 5 percent and the effect is still sizeable. Column 5 includes all the attitudes in a single regression. Inherited trust becomes statistically significant at the 10 percent level. But none of the other variables, including lagged income per capita, is statistically significant, suggesting data limitation.

Table XII reports the results when we control for social or cultural changes in the home country. Columns 1 to 3 include changes in the shares of educated people, of nonreligious persons, and of religious fractionalization respectively. All variables are calculated relative to Sweden. Column 4 includes all the controls taken together. For each specification, the correlation between changes in inherited trust and changes in income per capital remains statistically significant at the 1 or 5 percent, and the coefficient is of the same order of magnitude.

5   Conclusion

This paper provides a new empirical strategy to uncover the causal effect of trust on growth. We track changes in trust levels inherited by different generations of Americans from the countries of their immigrant forbearers as a measure of the evolution of trust in those source countries. By using this inherited component of trust and its time variation, we are able to isolate the specific impact of trust on economic development relative to other traditional candidates – like institutions and geography – captured by the country fixed effects. Inherited trust turns out to explain a significant share of the economic backwardness of developing countries and an important share of economic differences between developed countries over the 20th century.

This paper focuses on the economic consequences of changes in inherited trust. A remaining question is the underlying causes for such changes. The 20th century is full of potential candidates, including the two World Wars, the economic crisis of the 1930s, the emergence of totalitarianism and communism as opposed to the emergence of social democracies and cooperative social dialogue. These events have had heterogeneous effects across generations and countries. The link between such events and changes in trust remains to be explored, in lines with, among others, Alesina and Fuchs-Schuendeln (2007) and Aghion et al. (2010, 2010).

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A Appendix

A.1 Decomposition of inherited trust by wave of immigration and age

In the benchmark estimates, we group together different generations of immigration of different ages to analyze the correlation between inherited trust of US-immigrants and trust in the country of origin. In this appendix we assess the robustness of this correlation by decomposing by sub-groups the inherited trust of US-immigrants for the periods 1935 and 2000. We estimate the correlation with trust in the home country by replacing the country of origin fixed effect by the average trust in the source country, measured by the WVS 2000. These estimates are run on the GSS over the period 1977-2004, as in the main section. In the benchmark regressions, the inherited trust for the period 1935 corresponds to that of second generation born before 1910, third generation born before 1935 and fourth generation born before 1960. Here, we run the estimates for inherited trust in 1935 separately on the two sub-groups of second and third generation immigrants on one hand, and on the sub-group of fourth generation on the other hand. Table XIII - Columns 1 and 2 show that no correlation shows up between trust of US-immigrants belonging to the different sub-groups of inherited trust in 1935 and trust in the home country in 2000.

Regarding the inherited trust for the period 2000, the benchmark regressions above include the second-generation Americans born between 1910 and 1975, the third generation born after 1935 and the fourth generation Americans born after 1960. We now propose to distinguish the two sub-groups of second and third generation immigrants on one hand, and the sub-group of fourth generation on the other hand. Table XIII - Column 3 and 4 show the correlation between inherited trust in 2000 and trust in the home country by sub-groups. The correlation is statistically significant at the 1 and 5 percent level, consistently with the aggregate group of inherited trust in 2000.

A.2 Trust indicator

Table XIV reports the effect of inherited trust on income per capita when we use different measures of the trust indicator. The trust variable in the GSS takes on three values: "Most people can be trusted", "Depends" and "Can't be too careful". In the main section, we group together the answers "Depends" and "Can't be too careful". Table XIV - Column 1 reports the results using the original trust variable, Trust1, equal to 3 for "Most people can be trusted", 2 for "Depends" and 1 for "Can't be too careful". The right hand side variable corresponds to the coefficients of the country of origin, estimated with ordered probit regression on the original trust variable at the individual level. Table XIV - Column 2 reports the results when we use the trust dummy, Trust2, equal to 1 for "Most people can be trusted" and 0 for "Can't be too careful". In this case, the answers "Depends" are dropped. The right hand side variable corresponds to the coefficients of the country of origin, estimated with OLS regression on the variable Trust2 at the individual level. Table XIV - Column 3 reports

the results when we use the trust dummy, Trust3, equal to 1 for "Most people can be trusted" and "Depends" and 0 for "Can't be too careful". The right hand side variable corresponds to the coefficients of the country of origin, estimated with OLS regression on the variable Trust3 at the individual level.

For all specifications, the impact of inherited trust on income per capita is statistically significant at the 1 percent level. The coefficients associated with inherited trust for the variables trust2 and trust3 are of the same order as the one found in the main section.

A.3 Generation lag of 75 years

This appendix assesses the impact of inherited trust on income per capita when we impose a minimum lag of three generations, which corresponds to 75 years, between these two variables. To get enough observations for inherited trust, this analysis required working with two closer periods for income per capita than in our benchmark case. We consider the periods 1950 and 2000. The income per capita in 1950 is measured as an average between 1949 and 1953. To get enough observations, we include in the second, third and fourth generation immigrants individuals whose at least one parent is born in the country.

Following our estimation strategy with a lag of 75 years for inherited trust, income per capita in 1950 is explained by inherited trust of second-generation US-immigrants born before 1885, third-generation born before 1910 and fourth-generation born before 1935. Income per capita in 2000 is explained by inherited trust of second-generation immigrants born before 1925 and after 1885, third-generation immigrants born before 1950 and after 1910, and fourth-generation immigrants born before 1975 and after 1935 (to avoid an overlap with inherited attitudes in 1950). We have more than 15 observations per country of origin for the period 1950 for the following 17 countries or continents: Africa, Canada, Czech Republic, Denmark, France, Germany, Ireland, Italy, Mexico, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, and United Kingdom.

Table XV reports the impact of inherited trust on income per capita in 1950 and 2000. Column 1 and 2 report the results for between and within regressions without additional controls. Column 3 shows the within estimates controlling for lagged income per capita and political institutions in 1950 and 2000. The impact of inherited trust on income per capita is statistically significant at the 1 percent level for each specification.

TABLE I - INHERITED TRUST IN 1935 AND 2000

	(1) Inherited trust in 1935		(2) Inherited trust in 2000	
	Coeff	Std Error	Coeff	Std Error
Country of origin	Swedish ancestors - 1935 : Reference			
Sweden			0.052***	(0.004)
Africa	-0.231***	(0.004)	-0.243***	(0.007)
Austria	-0.031***	(0.004)	0.102***	(0.011)
Belgium	0.073***	(0.013)	0.134***	(0.021)
Canada	-0.024**	(0.010)	0.078**	(0.015)
Czech Republic	0.006	(0.008)	-0.052***	(0.009)
Denmark	0.045***	(0.002)	0.157***	(0.004)
Finland	-0.032***	(0.003)	0.172***	(0.003)
France	0.040***	(0.004)	-0.047***	(0.010)
Germany	0.024***	(0.001)	-0.004	(0.008)
Hungary	0.023***	(0.004)	0.020*	(0.011)
India	-0.041***	(0.009)	-0.376***	(0.012)
Ireland	0.030***	(0.003)	-0.025*	(0.012)
Italy	-0.022*	(0.012)	-0.086***	(0.016)
Mexico	0.101***	(0.014)	-0.125***	(0.015)
Netherlands	-0.039***	(0.003)	0.051***	(0.005)
Norway	0.156***	(0.001)	0.113***	(0.003)
Poland	0.047***	(0.014)	-0.052***	(0.015)
Portugal	0.004	(0.009)	0.002	(0.017)
Russia	0.171***	(0.012)	-0.068***	(0.007)
Spain	-0.052***	(0.009)	0.042**	(0.015)
Switzerland	0.058***	(0.002)	0.102***	(0.007)
United Kingdom	0.043***	(0.001)	0.003	(0.007)
Yugoslavia	0.303***	(0.010)	-0.018	(0.016)
Pseudo-R^2		0.105		
Observations		11026		

Notes: The dependent variable is the level of trust inherited by US-immigrants from the periods 1935 and 2000. Trust is measured from the answer to the question: "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?". The answers are given on a scale from 1 to 3, which corresponds to "Most people can be trusted", "Can't be too careful" and "Depends". The trust indicator is equal to 1 if the respondent answers that people can be trusted and 0 if he considers that one cannot be too careful or that it depends. Additional controls: age, age (square), gender, education, income, employment status and religion. OLS regressions with robust standard errors clustered at the country level.

Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

Source : General Social Survey 1977-2004.

TABLE II - CORRELATION BETWEEN INDIVIDUAL CHARACTERISTICS AND TRUST

Controls	Dependent variable: Inherited trust in the US	
	Coeff	Std Error
Age	0.007^{***}	(0.001)
Age2	-0.000^{**}	(0.000)
Men	0.021^{***}	(0.008)
Education	0.032^{***}	(0.002)
Income category	0.010^{***}	(0.001)
Employed	0.005	(0.014)
Unemployed	-0.045^{***}	(0.017)
Catholic	0.026	(0.027)
Protestant	0.007	(0.014)

Notes: The dependent variable is the level of trust inherited by US-immigrants for the period 1935 and 2000. The Table presents the coefficients associated with the individual characteristics of the OLS regressions presented in Table I . Income category: 12 income categories, a higher value indicating a higher income category. Education: number of years of education. Reference: no religion and inactive. OLS regressions with robust standard errors clustered at the country level. Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

Source : General Social Survey 1977-2004.

TABLE III - CORRELATION BETWEEN INHERITED TRUST OF US-IMMINGRANTS AND TRUST IN THEIR SOURCE COUNTRY

	Dependent variables		
	Inherited trust in 2000	Inherited trust in 1935	Inherited trust in 2000 4th generation
	(1)	(2)	(3)
Trust in home country WVS 2000	0.462*** (0.142)	0.419 (0.268)	0.461** (0.211)
Age	0.004*** (0.000)	0.002*** (0.000)	-0.002 (0.003)
Men	0.028*** (0.012)	0.018 (0.011)	0.020 (0.016)
Education	0.036*** (0.003)	0.035*** (.002)	0.044 (0.007)
Income category	0.010*** (0.002)	0.015*** (0.002)	0.011*** (0.003)
Employed	-0.005 (0.024)	0.015 (0.023)	-0.030 (0.033)
Unemployed	-0.077** (0.037)	-0.020 (0.039)	-0.049 (0.044)
Protestant	-0.005 (0.021)	0.001 (0.026)	-0.015 (0.028)
Catholic	-0.002 (0.027)	0.063** (.030)	-0.031 (0.032)
Observations	4491	6535	2065
R^2	0.077	0.080	0.066

Notes: The dependent variables are (1) The level of trust inherited by US-immigrants in the period 2000, (2) The level of trust inherited by US-immigrants in the period 1935, (3) The level of trust inherited by fourth-generation US-immigrants in the period 2000. Trust in home country is the average level of trust in the source country of the US-immigrants in the period 2000. Reference group: inactive and non religion. OLS with robust standard errors clustered at the country level.

Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

Source : General Social Survey 1977-2004; World Values Survey wave 2000.

TABLE IV - CORRELATION BETWEEN INHERITED TRUST OF US-IMMIGRANTS AND TRUST IN A RANDOM SOURCE COUNTRY - COUNTERFACTUAL TEST

| | Dependent variables | |
	Inherited trust in 2000	Inherited trust in 1935
	(1)	(2)
Trust in a random	-0.021	0.230
source country	(0.102)	(0.161)
Observations	4491	6535
R^2	0.064	0.076

Notes: The dependent variables are (1) The level of trust inherited by US-immigrants in the period 2000, (2) The level of trust inherited by US-immigrants in the period 1935. The main explanatory variable is the average trust in a country different from the source country of the US-immigrants. The country associated to the US-immigrants is drawn randomly from a uniform distribution. Additional controls: age, gender, education, income, employment status and religion. OLS regressions with robust standard errors clustered at the country level.

Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

Source : General Social Survey 1977-2004; World Values Survey wave 2000.

TABLE V - INHERITED TRUST AND INCOME PER CAPITA IN 1935 AND 2000: CROSS–COUNTRY REGRESSION

| | Dependent variable: | | | |
| | Income per capita in 1935 and 2000 | | | |
	(1)	(2)	(3)	(4)
Inherited trust in 1935 and 2000	35952.13[***] (6811.83)	18389.59[***] (4811.88)	18601.70[***] (5708.99)	20030.74[***] (6966.35)
Initial income per capita 1870 and 1930		3.83[***] (0.45)	3.84[***] (0.53)	3.64[***] (0.54)
Political institutions in 1930 and 2000			1.45 (74.73)	32.50 (82.03)
Outliers				Africa, India excluded
R^2	.37	.75	.69	.63
Observations	48	48	46	44

Notes: OLS regressions. The dependent variable is the GDP per capita in the source countries in 1935 and 2000, relative to Sweden. Data come from Maddison. Inherited trust of US-immigrants from the source countries for the periods 1935 and 2000 is estimated relative to the trust inherited by US-immigrants with Swedish ancestors for those periods. The coefficients of inherited trust come from the regressions on the GSS. Political institutions are measured by the index Polity2 from the Polity IV database. A higher level indicates more democratic institutions. Institutions in the source countries are measured relative to Sweden. Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

TABLE VI - INHERITED TRUST AND INCOME PER CAPITA IN 1935 AND 2000: WITHIN ESTI-MATES

	Dependent variable: Income per capita in 1935 and 2000				
	(1)	(2)	(3)	(4)	(5)
Inherited trust in 1935 and 2000	41007.70*** (6041.57)	27332.62*** (7179.62)	31198.48*** (7231.02)	28230.15*** (7350.49)	23930.95*** (6181.20)
Initial income per capita in 1870 and 1930		2.93*** (1.03)	2.17* (1.14)	2.81** (1.02)	2.65*** (.86)
Political institutions in 1930 and 2000				-149.34 (89.41)	-103.15 (75.18)
Outliers			Africa excluded		
Country fixed effects	Yes***	Yes***	Yes***	Yes***	Yes***
R^2	.83	.87	.87	.87	.88
Observations	48	48	46	46	46

Notes: OLS regressions. The dependent variable is the GDP per capita in the source countries in 1935 and 2000, relative to Sweden. GDP per capita is averaged over 10 years in Column (5). Data come from Maddison. Inherited trust of US-immigrants from the source countries for the periods 1935 and 2000 is estimated relative to the trust inherited by US-immigrants with Swedish ancestors for those periods. The coefficients of inherited trust come from the regressions on the GSS. Political institutions are measured by the index Polity2 from the Polity IV database. A higher level indicates more democratic institutions. Institutions in the source countries are measured relative to Sweden. Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

TABLE VII - INHERITED TRUST AND INCOME PER CAPITA: LAG OF AT LEAST 50 YEARS BETWEEN INHERITED TRUST AND INCOME PER CAPITA

	Dependent variable: Income per capita in 1935 and 2000		
	(1)	(2)	(3)
Inherited trust in 1935 and 2000 Minimum 50 years lag	23004.56*** (7523.35)	26124.64** (9079.68)	14903.50** (6905.15)
Initial income per capita 1870 and 1930			4.43*** (1.03)
Political institutions in 1930 and 2000			-71.63 (123.87)
Country dummies	No	Yes***	Yes***
R^2	0.23	0.59	0.82
Observations	32	32	32

Notes: OLS regressions. The dependent variable is the GDP per capita in the source countries in 1935 and 2000, relative to Sweden. Data come from Maddison. We measure the trust that the ancestors of the US-immigrants have transmitted to their descendants at least 50 years before the period 1935 and 2000. Inherited trust of US-immigrants from the source countries for the periods 1935 and 2000 is estimated relative to the trust inherited by US-immigrants with Swedish ancestors for those periods. The coefficients of inherited trust come from the regressions on the GSS. Political institutions are measured by the index Polity2 from the Polity IV database. A higher level indicates more democratic institutions. Institutions in the source countries are measured relative to Sweden. Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

TABLE VIII - INHERITED TRUST IN 1910 AND 2000

	Dependent variables			
	Inherited trust in 1910		Inherited trust in 2000	
	(1)		(2)	
	Coeff	Std Error	Coeff	Std Error
Country of origin	Swedish ancestors - 1910 : Reference			
Sweden			0.169***	(0.025)
Africa	-0.137***	(0.008)	-0.154***	(0.036)
Canada	0.371***	(0.007)	0.147***	(0.026)
Czech Republic	0.150***	(0.062)	0.062**	(0.021)
Denmark	0.071***	(0.003)	0.215***	(0.025)
France	0.045***	(0.003)	0.016	(0.033)
Germany	0.083***	(0.003)	0.063*	(0.030)
Ireland	0.076***	(0.004)	0.074**	(0.030)
Italy	0.133***	(0.005)	0.015	(0.024)
Netherlands	0.036***	(0.005)	0.092***	(0.028)
Norway	0.158***	(0.001)	0.212***	(0.025)
Poland	-0.040***	(0.011)	0.065***	(0.022)
Spain	0.036***	(0.004)	0.160***	(0.030)
Switzerland	0.249***	(0.004)	0.222***	(0.030)
United Kingdom	0.097***	(0.002)	0.078***	(0.030)
Pseudo-R^2	0.094			
Observations	7032			

Notes: The dependent variable is the level of trust inherited by US-immigrants for the periods 1910 and 2000. Additional controls: age, gender, education. OLS regressions with robust standard errors clustered at the country level.

Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

Source : General Social Survey 1977-2004.

TABLE IX - INHERITED TRUST AND INCOME PER CAPITA IN 1910 AND 2000: CROSS-COUNTRY REGRESSION

	Dependent variable: Income per capita in 1910 and 2000		
	(1)	(2)	(3)
Inherited trust in 1910 and 2000	21027.76*** (6317.44)	15499.99** (5085.94)	18155.19** (7901.45)
Initial income per capita in 1870 and 1930		3.76*** (0.85)	3.79*** (0.86)
Political institutions in 1910 and 2000			-117.45 (264.69)
Country fixed effect	No	No	No
Adj-R^2	0.25	0.54	0.53
Observations	30	30	30

Notes: OLS regressions. The dependent variable is the GDP per capita in the source countries in 1910 and 2000, relative to Sweden. Data come from Maddison. Inherited trust of US-immigrants from the source countries for the periods 1910 and 2000 is estimated relative to the trust inherited by US-immigrants with Swedish ancestors for those periods. The coefficients of inherited trust come from the regressions on the GSS. Political institutions are measured by the index Polity2 from the Polity IV database. A higher level indicates more democratic institutions. Institutions in the source countries are measured relative to Sweden. Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

TABLE X - INHERITED TRUST AND INCOME PER CAPITA IN 1910 AND 2000: WITHIN ESTIMATES

	Dependent variable: Income per capita in 1910 and 2000		
	(1)	(2)	(3)
Inherited trust in 1910 and 2000	22903.31** (8709.25)	17286.24** (6346.56)	8694.28 (12536.38)
Initial income per capita 1870 and 1930		4.85*** (1.22)	4.82*** (1.24)
Political constraints 1910 and 2000			349.15 (437.32)
Country fixed effect	Yes***	Yes***	Yes***
R^2	0.51	0.77	0.78
Observations	30	30	30

Notes: OLS regressions. The dependent variable is the GDP per capita in the source countries in 1910 and 2000, relative to Sweden. Data come from Maddison. Inherited trust of US-immigrants from the source countries for the periods 1910 and 2000 is estimated relative to the trust inherited by US-immigrants with Swedish ancestors for those periods. The coefficients of inherited trust come from the regressions on the GSS. Political institutions are measured by the index Polity2 from the Polity IV database. A higher level indicates more democratic institutions. Institutions in the source countries are measured relative to Sweden. Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

TABLE XI - INHERITED TRUST AND INCOME PER CAPITA IN 1935 AND 2000: ADDITIONAL CONTROLS (I)

	Dependent variable: Income per capita in 1935 and 2000				
	(1)	(2)	(3)	(4)	(5)
Inherited trust in 1935 and 2000	24139.51*** (7586.25)	32133.31*** (10949.69)	29875.68*** (8423.30)	28397.90*** (7196.21)	31429.61* (10778.15)
Initial income per capita in 1870 and 1930	2.76** (0.99)	2.69** (1.07)	2.93** (1.08)	2.33** (1.06)	2.16* (1.09)
Political institutions in 1930 and 2000	-173.62* (87.94)	-134.57** (95.97)	-120.21* (113.74)	-67.85 (105.48)	-27.05 (121.79)
Inherited attitudes towards work and origins of success	15557.01 (10012.16)				19921.46* (10177.59)
Inherited confidence in business		-6472.75 (13249.42)			-10179.00 (12657.09)
Inherited attitudes towards government intervention			-1086.05 (2533.69)		-1391.67 (2375.70)
Inherited attitudes towards gender division of work				11860.37 (8567.71)	13506.70 (8402.54)
Country fixed effects	Yes***	Yes***	Yes***	Yes***	Yes***
R^2	.88	.87	.87	.88	.90
Observations	46	46	46	46	46

Notes: OLS regressions. The dependent variable is the GDP per capita in the source countries in 1935 and 2000, relative to Sweden. Data come from Maddison. Inherited trust and attitudes of US-immigrants from the source countries for the periods 1935 and 2000 is estimated relative to the trust and attitudes inherited by US-immigrants with Swedish ancestors for those periods. The coefficients come from the regressions on the GSS. Political institutions are measured by the index Polity2 from the Polity IV database. A higher level indicates more democratic institutions. Institutions in the source countries are measured relative to Sweden. Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

TABLE XII - INHERITED TRUST AND INCOME PER CAPITA IN 1935 AND 2000: ADDITIONAL CONTROLS (II)

	Dependent variables: Income per capita in 1935 and 2000			
	(1)	(2)	(3)	(4)
Inherited trust in 1935 and 2000	23520.25** (9357.68)	31995.81*** (9148.59)	32265.39** (8765.55)	31215.1*** (7674.84)
Initial income per capita in 1870 and 1930	1.62** (.77)	2.24** (.95)	1.43 (.88)	1.61** (.73)
Political institutions in 1930 and 2000	-383.44** (128.64)	-229.87* (109.80)	-109.17 (126.93)	-68.27 (128.69)
Preschool enrollment in 1870 and 1930	10914.09** (5515.04)			8261.16* (4520.91)
Non-religious persons in 1900 and 2000		-3145.13 (7098.95)		-29102.94*** (9268.96)
Religious fractionalization in 1900 and 2000			-6190.92 (4358.18)	-22405.04*** (5763.20)
Country fixed effects	Yes***	Yes***	Yes***	Yes***
R²	0.70	0.68	0.70	0.83
Observations	46	46	46	46

Notes: OLS regressions. The dependent variable is the GDP per capita in the source countries in 1935 and 2000, relative to Sweden. Data come from Maddison. Inherited trust and attitudes of US-immigrants from the source countries for the periods 1935 and 2000 is estimated relative to the trust and attitudes inherited by US-immigrants with Swedish ancestors for those periods. The coefficients of inherited trust come from the regressions on the GSS. Political institutions are measured by the index Polity2 from the Polity IV database. A higher level indicates more democratic institutions. Institutions in the source countries are measured relative to Sweden. Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level..

TABLE XIII - CORRELATION BETWEEN INHERITED TRUST AND TRUST IN THE SOURCE COUNTRY: SUB-GROUPS BY WAVES OF IMMIGRATION

	Dependent variables			
	(1)	(2)	(3)	(4)
	Inherited trust 2nd-3d generation Period 1935	Inherited trust 4th generation Period 1935	Inherited trust 2nd-3d generation Period 2000	Inherited trust 4th generation Period 2000
	(1)	(2)	(3)	(4)
Trust in	0.207	0.395	0.408***	0.461**
source country	(0.132)	(0.303)	(0.082)	(0.211)
Observations	753	5782	2426	2065
R^2	0.064	0.081	0.066	0.066

Notes: The dependent variables are (1) The level of trust inherited by second-generation and third generation US-immigrants in the period 1935, (2) The level of trust inherited by fourth generation US-immigrants in the period 1935, (3) The level of trust inherited by second-generation and third generation US-immigrants in the period 2000, (4) The level of trust inherited by fourth generation US-immigrants in the period 2000. Trust in source country is the average level of trust in the source country of the US-immigrants in the period 2000. .Additional controls: age, gender, education, income, employment status and religion. OLS regressions with robust standard errors clustered at the country level. Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

Source : General Social Survey 1977-2004; World Values Survey wave 2000.

TABLE XIV - INHERITED TRUST AND INCOME PER CAPITA IN 1935 AND 2000: ROBUSTNESS CHECKS FOR THE TRUST INDICATOR

	Dependent variable: Income per capita in 1935 and 2000		
	Trust1	Trust2	Trust3
Inherited trust in 1935 and 2000	26332.67*** (7473.67)	26603.70*** (7090.23)	26249.95** (7060.58)
Initial income per capita in 1870 and 1930	3.03*** (1.04)	2.81** (1.04)	2.92** (1.03)
Political institutions in 1930 and 2000	-142. 02** (92.49)	-157.11* (90.30)	-156.31* (90.62)
Country fixed effects	Yes***	Yes***	Yes***
Adj-R^2	0.86	0.86	0.86
Observations	46	46	46

Trust1 = 3 for trust, 2 for depends, 1 for no trust

Trust2 = 1 for trust, 0 for no trust. Answers "Depends" deleted

Trust3 = 1 for trust and depends, 0 for no trust

Notes: OLS regressions. Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

TABLE XV - INHERITED TRUST AND INCOME PER CAPITA IN 1950 AND 2000 - LAG OF 75
YEARS IN INHERITED TRUST

| | Dependent variable: Income per capita in 1950 and 2000 | | |
	(1)	(2)	(3)
Inherited trust in 1950 and 2000	31319.76[***]	34200.61[***]	24195.65[***]
Minimum lag of 75 years	(8243.81)	(9001.73)	(6824.92)
Initial income per capita			3.64[***]
1870 and 1930			(0.78)
Political constraints			-25.74
1950 and 2000			(91.14)
Country dummies	No	Yes[***]	Yes[***]
R^2	0.30	0.73	0.89
Observations	34	34	34

Notes: OLS regressions. The dependent variable is the GDP per capita in the source countries in 1950
and 2000, relative to Sweden. Data come from Maddison. We measure the trust that the ancestors of the US-
immigrants have transmitted to their descendants at least 75 years before the period 1950 and 2000. Inherited
trust of US-immigrants from the source countries for the periods 1950 and 2000 is estimated relative to the
trust inherited by US-immigrants with Swedish ancestors for those periods. The coefficients of inherited trust
come from the regressions on the GSS. Political institutions are measured by the index Polity2 from the Polity
IV database. A higher level indicates more democratic institutions. Institutions in the source countries are
measured relative to Sweden. Coefficient is statistically different from 0 at the *** 1%, ** 5% and * 10% level.

Table A1 - SAMPLES OF THE GSS AND WVS

		General Social Survey				World Values Survey
	N	"Trust most other people"	"Can't be too careful"	"Depends"	N	"Trust most other people / Can't be too careful " 1-0
Africa	3,095	0.17	0.79	0.04	4,109	0.14
Austria	230	0.44	0.50	0.06	1,520	0.33
Belgium	58	0.51	0.49	0.0	1,823	0.29
Canada	488	0.41	0.55	0.04	1,811	0.37
Czech Rep.	458	0.44	0.49	0.07	1,840	0.25
Denmark	277	0.53	0.43	0.04	1,013	0.66
Finland	180	0.52	0.41	0.07	988	0.58
France	761	0.44	0.50	0.06	1,587	0.21
Germany	6,276	0.44	0.52	0.04	2,019	0.37
Hungary	228	0.43	0.52	0.02	985	0.24
India	120	0.29	0.60	0.11	1,337	0.38
Ireland	4,144	0.45	0.50	0.05	965	0.36
Italy	1,949	0.38	0.57	0.05	1,950	0.32
Mexico	990	0.25	0.70	0.05	1,124	0.20
Netherlands	595	0.42	0.54	0.06	984	0.60
Norway	690	0.57	0.40	0.03	1,101	0.66
Poland	1,098	0.43	0.52	0.05	1,090	0.18
Portugal	90	0.35	0.59	0.06	901	0.12
Russia	554	0.47	0.47	0.06	2,480	0.23
Spain	320	0.33	0.63	0.04	2,232	0.36
Sweden	598	0.51	0.44	0.05	913	0.67
Switzerland	154	0.54	0.41	0.05	1,103	0.37
United Kd	5,941	0.50	0.45	0.05	884	0.27
Yugoslavia	146	0.48	0.47	0.05	1,194	0.16

Table A2 - OBSERVATIONS FOR INHERITED TRUST IN 1935 AND 2000: GSS 1977-2004

country of origin	Inherited trust in 1935	Inherited trust in 2000
Africa	1,720	673
Austria	36	97
Belgium	12	23
Canada	138	173
Czech Republic	94	221
Denmark	99	78
Finland	38	75
France	329	189
Germany	2,852	1,602
Hungary	20	104
India	7	11
Ireland	2,017	1,036
Italy	216	1,103
Mexico	93	394
Netherlands	249	147
Norway	255	223
Poland	156	556
Portugal	11	40
Russia	51	272
Spain	82	80
Sweden	207	222
Switzerland	64	34
United Kingdom	3,282	1,071
Yugoslavia	14	86

TABLE A3 - DESCRIPTIVE STATISTICS: GSS 1977-2004

Variable	Cohort 1910		Cohort 1935		Cohort 2000	
	Mean	Std	Mean	Std	Mean	Std
Age	67.26	11.08	51.86	16.69	36.87	14.77
Men	0.40	0.49	0.43	0.49	0.46	0.49
Education	11.83	3.33	12.85	3.03	13.45	2.57
Income	9.29	2.95	10.09	2.65	10.43	2.53
Inactive	0.67	0.46	0.39	0.48	0.25	0.43
Unemployed	0	0	0.02	0.14	0.03	0.11
Employed	0.31	0.46	0.58	0.49	0.71	0.45
Catholic	0.12	0.32	0.18	0.38	0.39	0.48
Protestant	0.84	0.36	0.74	0.43	0.45	0.49
No religion	0.03	0.18	0.06	0.24	0.11	0.32

TABLE A4 - OBSERVATIONS FOR INHERITED TRUST: LAG 50 YEARS - GSS 1977-2004.

Country of origin		Inherited trust in 1935 Minimum Lag 50 years	Inherited trust in 2000 Minimum Lag 50 years
	N	N	N
Africa	561	561	1,836
Canada	34	34	318
Czech Republic	17	17	314
Denmark	22	22	169
France	104	104	429
Germany	856	857	3,745
Ireland	698	698	2,417
Italy	16	16	1,360
Mexico	-	16	539
Netherlands	98	98	326
Norway	49	49	456
Poland	13	13	734
Spain	20	20	152
Sweden	36	36	411
Switzerland	25	25	85
United Kingdom	1,445	1,445	3,011