Social Capital vs Institutions in the Growth Process

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Abstract

Is social capital always important for economic growth? A number of recent micro studies suggest that interpersonal trust and social capital will have its greatest impact on economic performance when court institutions are relatively weak. The conventional wisdom from macro studies, however, is that social capital is unconditionally good for growth. On the basis of the micro evidence, we outline an investment game between a producer and a lender in an incomplete-contracts setting. A key insight is that social capital will have the greatest effect on the total surplus from the game at lower levels of institutional strength and that the effect of social capital vanishes when institutions are very strong. When we bring this prediction to an empirical cross-country growth regression, it is shown that the marginal effect of social capital (in the form of interpersonal trust) decreases with institutional strength. Our results imply that a one standard deviation rise in social capital in weakly institutionalized Nigeria should increase economic growth by 1.8 percentage points, whereas the same increase in social capital only increases growth by 0.3 percentage points in strongly institutionalized Canada.

1 Introduction

Though arguably highly interrelated, research on the impacts of social capital and formal institutions on economic development have mainly emerged as two distinct fields. In the former literature, trust, networks, social norms, and associational activity are believed to be central aspects of successful economies.

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In the institutional literature, formal rules of the game such as property rights laws and the strength of courts are regarded as critical for development. We argue that there is an important disconnection between results from micro studies of social capital - which indicate that various self enforcement mechanisms are more prevalent when contracting institutions are weak - and macro studies where social capital-related measures are hypothesized to have a uniform positive impact on economic performance.

In this article, we outline a unified theoretical framework of the relative importance of social capital and formal institutions in a simple principle-agent investment model featuring a producer and a lender in an incomplete contract-setting. The probability of contract enforcement by an exogenous court is our major indicator of institutional strength and social capital enters our model as an extra 'social' or 'intrinsic' payoff to both players from acting trusting or trustworthy.[1] The major insight from our model is that social capital tends to have its greatest positive impact on the total monetary surplus from the game (economic growth) at lower levels of institutional development and that the positive impact eventually vanishes if institutions become strong enough.

This basic prediction is then brought to the macro level and tested in a cross-country growth regression. In accordance with our hypothesis, our results show that the marginal impact of our proxy for social capital (interpersonal trust) decreases with the quality of formal institutions. More precisely, our results imply that a one standard deviation increase in social capital leads to a 1.10 percentage points increase in the growth rate among countries at the 25th percentile of institutional strength, whereas the effect among countries at the 75th percentile of institutional strength is only 0.36 percentage points.

Our approach combines two major types of building blocs: (1) The literature on the macroeconomic effects of formal institutions and (2) the extensive empirical literature on the micro and macro effects of social capital. Starting with institutional economics, this tradition emphasizes how formal institutions such as those regulating the strength of property rights, the constraints against the executive, and the power of courts are fundamental determinants of long-run growth. Following in the footsteps of Douglass North (1981, 1990), a number of seminal contributions have emerged over the recent decade such as Knack and Keefer (1995), Hall and Jones (1999), Acemoglu et al. (2001, 2002), Acemoglu and Johnson (2005), and Banerjee and Iyer (2005). These studies all show that

[1] Our analysis is therefore not concerned with the formation and impact of different kinds of networks, which is another important line of research on social capital.

good formal institutions are strongly associated with great prosperity, although joint endogeneity problems are still an important econometric issue in the literature. Unlike our study, this literature also aims at explaining why some countries have better formal institutions than others. None of these studies, however, attempt to quantify the effect of informal institutions such as social networks or interpersonal trust. Acemoglu and Johnson (2005) differentiate between court ('contracting') and property rights institutions, but do not study the impact of private enforcement mechanisms.

The empirical cross-country macro literature on social capital includes seminal contributions by Knack and Keefer (1997) and Zak and Knack (2001).[2] The paper most closely related to ours is Zak and Knack (2001) who regress economic growth on both levels of interpersonal trust and on an index of formal institutional strength in a cross-section of 41 countries, most of which are industrialized. The authors find that interpersonal trust is positively and significantly related to growth when holding formal institutions constant. However, they do not explore the possibility of non-linear effects of trust that depend on different levels of formal institutions. Similarly, Tabellini (2006) finds a positive effect of interpersonal trust on growth in European regions using an instrumental variable approach, but neglects any differential effects depending on formal institutions.[3]

The overall picture in micro studies is mixed but nevertheless suggests that social capital has a larger effect on economic performance when formal institutions are weak. Table 1 shows a summary of some of the more well-known studies. Although a full review is beyond our ambitions, we will briefly mention a few articles. In a study of transition economies in Eastern Europe, Johnson et al. (2002), find that when institutions are weak, firms are more likely to engage in 'relational contracting', i.e. trust-based interactions, whereas the support of courts appears to be more important in relatively more developed countries. For poor developing countries, Bigsten et al. (2000) and Fafchamps and Minten (2002) have confirmed the same basic logic that social capital has a strong role when property rights and courts are working imperfectly.[4] Study-

[2] See Durlauf (2002) and Durlauf and Fafchamps (2004) for a critical discussion of this line of research.

[3] Tabellini uses data from 69 regions in 8 Western European countries and includes country fixed effects. The instruments used are literacy rate around 1880 and constraints on the executive in the years 1600-1850. However, he does not include any measures of formal institutions at the regional level.

[4] Johnson et al (2002) show that efficient courts create trust and help to start and develop social interactions which are then sustained by more personal relationships.

ing provincial data from Italy, Guiso et al. (2004) find that the effect of social capital is stronger in provinces where legal enforcement is weaker. Social capital also appears to be more important among the less educated, implying that trust is more important when contracts are regarded as too complex. Miguel et al (2005) show that conventional measures of initial social capital are statistically unrelated to subsequent industrial development in Indonesia during the 1985-95 period. They instead attribute the rapid Indonesian development to an improved institutional environment.

We argue that there is an important missing link between results from micro and macro studies of social capital. In particular, the micro studies highlight how the effect of social capital depends on the level of formal institutions, while the macro studies assume that the effect is linear and independent of the level of formal institutions. In order to rationalize the micro results and test their validity on the macro level, we suggest a simple theoretical framework for the relationship between social capital and institutions and then proceed by testing the implications of the model using cross-country data.

We further borrow insights from behavioral economics and a large body of experiments showing that economic agents in contractual settings often do not behave in ways that are rational from a purely economic point of view, but rather by trusting others or behaving trustworthy. More specifically, trust can be seen as a calculation under uncertainty whereby trust is an expectation of trustworthiness and trustworthiness, in turn, is due to reciprocity (for surveys, see Camerer, 2003; Ostrom and Walker, 2003). Alternatively, agents may trust others and behave trustworthy because they have social preferences for altruism or other unconditional social factors (for a survey, see Fehr and Schmidt, 2002). Our model is most closely related to the latter perspective, by making the simplest possible case and assuming away uncertainty about agents' preferences and payoffs.

In summary, we argue that our article offers two specific contributions to the literature. Firstly, our model rationalizes the empirical regularity that social capital matters for investment mainly when institutions are relatively weak. Secondly, our article is the first one to demonstrate empirically that the marginal impact of social capital on economic growth is declining in institutional strength.

The article is organized as follows. In section 2 we present the model and derive the key results for the relevance of social capital and institutions. In section 3 we display the empirical specifications and present the results. Section 4 concludes the exposition.

2 The Model

In order to provide an aid for thinking about the effects of institutions and social capital on growth, we present in this section a simple model of an investment game between a Lender and a Producer, inspired by the empirical literature referred to above. The purpose of the model is to provide a micro-foundation for our hypotheses regarding the interrelationships between social capital and institutions at the macro level.

2.1 The Investment Game

The model is a sequential, principal-agent investment game with a representative Lender and Producer and a Court as described in extensive form in Figure 1. We have chosen to analyze an investment problem since it is standard to regard investment as a key engine of economic growth, but similar types of situations also apply in supplier-producer and buyer-seller situations with trade credit. We also believe that this type of game is quite similar to the scenarios described in the empirical literature referred to above. The game is one of perfect information and players are assumed to be risk neutral and non-cooperative. There are no other agents in the economy.

In the initial Credit Stage, Lender chooses whether to lend the required amount of capital k or not. If she chooses not to, the game ends, no production occurs, and payoffs are $u_L = u_P = 0$ for Lender and Producer respectively. This is the 'autarkic' or status quo situation where agents remain in subsistence production.

<Figure 1 about here>

In the second Contract Stage, the players have entered a market economy where a lending of k units of capital has occurred and production has been undertaken. Producer considers the option of fulfilling the credit contract which would result in Producer receiving a net monetary payoff of $\pi_P > 0$ plus a non-monetary social benefit of cooperation $s_P > 0$. Likewise, Lender would in this case get the credit k in return and in addition get a monetary compensation $\pi_L > 0$ and social payoff from being trusting $s_L > 0$. This is clearly the socially optimal situation in the sense that it maximizes aggregate welfare and total monetary payoffs.

The s_i-terms capture rewards stemming from the trust and trustworthiness among our representative agents. These extra payoffs are a kind of social reward such as a strengthened reputation or the moral satisfaction from living up to a norm towards cooperation.[5] The payoffs only materialize if the player in question has shown a trustworthy behavior. If Producer reneges he forgoes this social payoff whereas Lender retains it throughout the game if she has provided the credit. We further assume that social payoffs are fully observable by both players.

The conventional payoffs from the investment π_P and π_L have been agreed upon in the contract. π_L could take the form of an interest payment to Lender or indeed as profit-sharing of some form. We leave it open here what type of financing arrangement the two players have agreed upon, although we could have easily made such a choice endogenous.

The other option for Producer is to renege on the contract, by which is meant that he retains the compensation to Lender π_L that was stipulated by the contract and repudiates Lender's claims to a repayment of k. The dispute may then end up in court in the third stage. This is the Lawsuit Stage, where the Lender decides whether to take the reneging Producer to court or not. Should the Lender choose not to go to court the Producer keeps the total monetary payoff from the project $\pi_L + \pi_P$ while we assume that he cannot benefit from the credit that he has failed to repay.[6] The Lender is left with a social payoff s_L and with a loss of his credit.[7] If Lender chooses to go to court, the court will enforce the contract with a probability β, which is our indicator of the strength of contracting institutions. β is simply meant to reflect how strong courts are and is not intended to imply any form of strategic interaction between the Court and the Producer. The cost of going to court is covered by a loser-pays-principle, according to which the losing party pays a fine of d to the court. If the contract is properly enforced, Lender gets her credit in return and receives a net payoff of $\pi_L + s_L$ while Producer receives $\pi_P - d$.

If the contract is not enforced by the court, Producer ends up with $\pi_L + \pi_P$. Lender receives no compensation and no repayment of the credit and thus

[5] See for instance Guth and Ockenfels (2005) and Francois and Zabojnik (2005) for similar 'intrinsic rewards' from cooperation.

[6] We make this assumption so that a failure to act trustworthy is also associated with a kind of waste in terms of total monetary payoffs. This is not a critical assumption but simplifies derivations.

[7] Another possibility, often observed in reality, is that Lender offers a renegotiation at this point, offering Producer not to be socially disgraced, perhaps in return for the credit and a smaller part of the net surplus from the investment.

receives a net utility of $-k-d+s_L$ from lending. Obviously, many Lenders would require some form of collateral for the loan, but for simplicity we abstract from that in this simple setting. We also leave out aspects like the degree of contract complexity or additional social costs of a negative court ruling.

Using the payoff structure above, we can easily derive the following results:

Result 1: *The best response strategies of the players and the SPNE of the game are determined by the following conditions:*

$$\begin{array}{lcl}
\text{Credit stage} & : & \left\{\begin{array}{c} \textit{Lend} \text{ if any of the following conditions applies:} \\ (i)\ L \equiv s_L + \beta\left(\pi_L + k + d\right) - k - d \geq 0 \\ (ii)\ s_L - k \geq 0 \\ (iii)\ \textit{Producer will fulfill} \\ \textit{Not lend} \text{ if none of (i), (ii), or (iii) applies.} \end{array}\right. \\
\text{(Lender)} & & \\
\text{Contract stage} & : & \left\{\begin{array}{c} \textit{Fulfill} \text{ if } F \equiv s_P + \beta\left(\pi_L + d\right) - \pi_L \geq 0 \\ \textit{Renege} \text{ otherwise} \end{array}\right. \\
\text{(Producer)} & & \\
\text{Lawsuit stage} & : & \left\{\begin{array}{c} \textit{Not to Court} \text{ if } s_L - k \geq 0 \text{ and} \\ \beta\left(\left(\pi_L + k + d\right)\right) - d \leq 0 \\ \textit{To Court} \text{ otherwise.} \end{array}\right. \\
\text{(Lender)} & &
\end{array}$$

The key expressions in Result 1 are $L = L(s_L, \beta, \pi_L, k, d)$ and $F = F(s_P, \beta, \pi_L, d)$ which determine whether the socially optimal equilibrium (*Lend, Fulfill*) is obtained or not. Obviously, Lender's willingness to lend and Producer's willingness to fulfill should increase with the social payoffs from trustworthy behavior s_L and s_P and from the strength of court institutions β. Social capital and institutions are substitutes in the sense that either increases s_L and s_P or an increase in β could make L or F positive. The size of the investment, given by k, affects Lender in the sense that she becomes more cautious and less willing to lend as k increases. Note further that Lender's willingness to lend will, as expected, be positively associated with her investment returns π_L, whereas these will have a negative influence on Producer's willingness to fulfill since a higher level makes it more tempting to try to appropriate this payoff.

Disregarding all other variables for a moment and assuming that $s_L = s_P = s < k$, we can write $L(s, \beta)$ and $F(s, \beta)$. Let us imagine a situation where court institutions are at a low level β^{low} such that $L(s, \beta^{low}) < 0$ and $F(s, \beta^{low}) < 0$, which means that monetary payoffs are $(0, 0)$. There is then a $\Delta s > 0$ such that

either $L(s+\Delta s, \beta^{low}) = 0$ or $F(s+\Delta s, \beta^{low}) = 0$, which means that Lender supplies the credit and production occurs. In other words, at low levels of β, it is quite possible that an increase in social capital s leads to economic development. However, at a high level of court strength β^{high} such that $L(s, \beta^{high}) \geq 0$ and $F(s, \beta^{high}) \geq 0$, the socially optimal equilibrium is already obtained and an equivalent increase Δs will have no effect. Hence, in this model, social capital increases will have a stronger positive effect when institutions are weak.

2.2 A Numerical Example

In order to illustrate the last point further and achieve a focus on the essentials, let us discuss the following example:

Example 1: $\pi_L = \pi_P = 3$, $k = 2$, $d = 1$, $s_L = s_P = s$.

This simplification allows us to analyze the relationship between the two remaining variables in the system; the strength of court institutions β and the social payoff s. The example assumes a relatively small investment with a relatively high total payoff and a payoff/investment ratio of $(\pi_L + \pi_P)/k = 6/2 = 3$. We believe that this particular example might illustrate a typical decision in credit-constrained small-scale agricultural or manufacturing sectors in a developing country.[8]

As was mentioned in the introduction, we do not attempt to explain how court institutions and social capital have emerged in the first place, but we recognize that they could both be driven by the same underlying set of forces (history, geography, ethnic fractionalization, etc) and are likely to be positively correlated.[9] Let us think of s as being proportional to the average level of social capital in society, i.e. the total stock of interpersonal relationships and trust that has accumulated over the years. We assume that the higher the average level, the greater the payoff from acting trustworthy. Equivalently, if the average level of trust is small, people will not be expected to cooperate and the social opportunity cost of reneging (s) should be relatively small.

The potential outcomes of this game are follow from Result 1 above. It is immediately clear from inspection of the game that the 'good' subgame perfect Nash equilibrium (SPNE) of (*Lend, Fulfill*) with payoffs $(3+s, 3+s)$ can be obtained if either the social payoff s or the strength of courts β are high, or

[8] We will later discuss the implications of assuming a much lower payoff/investment ratio.

[9] See for instance Congdon Fors and Olsson (2007) for a model of endogenous institutional change.

if both are high. More formally, standard backward induction shows that the socially optimal solution will be the SPNE if Lender in the first Credit stage finds it worthwhile to lend despite the risk of contract breach. This is always the case when $L = s + 6\beta - 3 \geq 0$. Lender will in any case provide the credit as long as $s \geq 2$, in accordance with (ii) in Result 1.

Lender will further lend if she is certain that Producer will fulfill, which is determined in the second Contract stage. Producer fulfills if the expected utility from reneging is lower than the certain utility of fulfilling the contract, which will be the situation if $F = s + 4\beta - 3 \geq 0$. Producer will not renege in this case since he knows that Lender would then take him to court which would be a worse outcome than fulfilling. The game would then end at the socially optimal SPNE.

If Producer has reneged so that the game has gone to the third Lawsuit stage, then Lender will only choose the *Not to Court*-response if the social payoff from investment is higher than the level of physical investment ($s \geq 2$) and institutions are very weak ($6\beta \leq 1$). Otherwise, she will always take the case to court.

The four different scenarios are outlined in Figure 2, which is drawn i β, s – space. The A-area shows the 'input requirement set' of court strength and social capital for the $(3 + s, 3 + s)$ equilibrium to apply. The line defined by $\beta = \frac{3-s}{4}$ shows the combinations of β and s where Producer is indifferent about reneging or fulfilling ($s + 6\beta - 3 = 0$). The curve is negatively sloped and linear, indicating that in this setup social capital and formal institutions are perfect substitutes. The equivalent line for Lender is given by $\beta = \frac{3-s}{6}$ in the $s \in [0, 2)$-interval. In the B-area are the combinations where the players end up in court. The area defined by $\beta \leq \frac{1}{6}$ and $s \geq 2$ makes up the C-are where Producer reneges but Lender will not go to court. Since β and s in reality tend to be correlated, it is rather unlikely that an economy could end up here. The D-area, lastly, hosts combinations where $\beta < \frac{3-s}{6}$ and $s < 2$, which yields the outcome with no investment $(0, 0)$.

<Figure 2 about here>

The main point of the figure is to illustrate intuitively how the effect of an exogenous increase in social capital can depend on the level of institutional strength. The four arrows in the A,B, and D-areas show equally large increases

in social capital.[10] In the A-area, an increase in s has no effect since the players are already in the good equilibrium. In fact, at all levels $\beta \geq \frac{3}{4}$, Producer is deterred from breaking the contract and the level of social capital will not matter for the outcome. This might be thought of as equivalent to a first-best outcome which would always be in place if institutions were perfect.

Two arrows originate in the D-area. An increase in s of the magnitude outlined in the arrows will have different effects depending on the exact ex ante circumstances. The lower placed arrow shows that higher social capital may not be enough to push the economy into a better equilibrium. As mentioned above, we do not think that this scenario with a very low β and a relatively high s is often observed in reality.[11] The upper arrow originating in the D-area shows that beginning at a higher level of court strength can make all the difference. However, even though the level of court strength generally matters for the effect of a subsequent improvement in social capital, a very large increase beyond approximately $s = 3$ would be enough to deter Producer from cheating at any level of β. In the B-area, finally - where Lender supplies the credit, Producer reneges, and the contract is settled in court - an increase in social capital is very likely to lead to the good equilibrium. The main insight from the figure is thus that the impact of increases in social capital will very much depend on the strength of formal institutions.

Some implications of our example are also shown in Figure 3, where we have depicted the relationship between the total monetary investment surplus from the credit deal ($\pi_L + \pi_P$) and the level of social capital. The vertical axis might thus be considered as roughly equivalent to economic growth in this two-player world. We see that when court institutions are very strong (for example $\beta = \frac{5}{6}$), there is no relationship between growth and social capital. If institutions are at intermediate level $\beta = \frac{1}{2} + \phi$, where ϕ is an infinitesimally small number, the players will initially be in the court scenario with an expected aggregate payoff of approximately 4, whereas an $s > 1$ will induce the players to end up in the good equilibrium. There is a non-linear, positive relationship between growth and social capital when institutions are very weak ($\beta = \frac{1}{8}$), but s must be quite high in order to increase growth.

[10] We recognize that the effect of exogenous increases in social capital also will depend on the level of institutional strength.

[11] Such a scenario might perhaps be observed in countries where the state has more or less collapsed and where social bonding has taken its place, as in Somalia in the 1990s. Such countries will, however, not be included in our empirical analysis.

<Figure 3 about here>

Is the main implication driven by our assumption of a very high payoff/investment ratio? If we altered the example and assumed instead $k = 10$ and $\pi_L = \pi_P = 1$ so that the ratio fell from 3 to 0.2, what would happen then? It might be argued that such levels are more common in advanced economies. The result would be that the F-curve would determine the outcome and there would only be two possible equilibria; the *Not Lend*-solution and (*Lend,Fulfill*).[12] The equivalents of the B and C-regions in Figure 2, associated with lending despite contract breach, would not exist. However, the same basic pattern would emerge in the sense that an increase in social capital could induce a shift from the bad equilibrium directly to the good equilibrium, but only if institutions are weak.

In summary, the very simple framework employed here gives at least three insights. To begin with, our model has the feature that formal institutions and social capital can be substitutes in the pursuit of the growth-maximizing equilibrium. This 'result' is however more or less imposed by the setup of the game. More interestingly perhaps, the model also shows that at high levels of institutional strength, social capital can be irrelevant for the 'growth outcome'. Thirdly, at low and intermediate levels of institutional strength, increases in social capital might have a positive effect on the total payoff from investment. For these cases, there is a (discontinuous) positive relationship between social capital and growth. In a condensed form, the model thus implies that the impact of an increase in social capital should decrease with the level of institutional strength. In the next section, we demonstrate that this prediction also holds at the macro level.

3 Empirical Evidence

Both our model and our overview of the micro literature indicate that the effect of social capital on economic performance will be nonlinear and depend on the quality of institutions. Likewise, the effect of institutions on economic performance will differ between low-trust countries and high-trust countries. In this section we will use econometric tools to provide further support for this line of theory. To keep our investigation comparable to the focal papers in the literature on social capital and growth, Knack and Keefer (1997) and Zak and Knack (2001), we employ a standard cross-country Barro-style growth model. Besides

[12] Lender's L-curve would be entirely outside the F-curve and would thus be irrelevant.

comparability with previous research this has two additional advantages - we can use what may be the best proxy available for social capital, interpersonal trust from World Values Surveys (WVS), and yet have sufficient variation in institutional quality. The growth regression technique has its well-known drawbacks (see e.g. Brock and Durlauf, 2001) but even for the sceptic it can point to interesting patterns of correlation and the results are straightforward to interpret.[13] The basic variables include measures of initial income, investment, and human capital and to these we add the nexus of social capital and institutions.

3.1 Model and data

The econometric models we employ will be variations on

$$\begin{aligned} & \left\{ \begin{array}{ll} (i) & g\,\mathrm{row}\,th_{i,1995-2005} \\ (ii) & investment\ rate_{2000} \end{array} \right\} \\ = \ & \beta_0 + \beta_1 \cdot initial\ income_i + \beta_2 \cdot investment\ prices_i + \beta_3 \cdot human\ capital_i \\ & + \beta_4 \cdot social\ capital_i + \beta_5 \cdot institutions_i + \beta_6 \cdot social\ capital_i \cdot institutions_i \\ & + error_i. \end{aligned}$$

Our predictions regarding the signs of the coefficients of interest are that $\beta_4, \beta_5 > 0$ but $\beta_6 < 0$. Where possible we will use initial values as regressors to mitigate concerns of reversed causality.[14] In our main regressions we use growth in real per capita GDP and life expectancy from the World Bank (2006a) and initial income and investment prices from Heston, Summers, and Aten (2006).[15] Interpersonal trust is coded from WVS data as the weighted share of respondents answering that "most people can be trusted" when asked "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?".

Interpersonal trust is an imperfect measure for social capital, but there is no such thing as a perfect measure for the norms of a society. In our model we pick one aspect whereby social capital can affect economic performance – that individuals gain a positive utility from acting trusting and honestly. We expect that the effect on utility will be different in different societies, not because people

[13] In the words of Lant Pritchett: "Growth regressions are incredibly useful in providing a general empirical background of stylized facts about the world." (2001:275)

[14] All specifications are estimated with OLS unless we explicitly state otherwise.

[15] By using life expectancy instead of average years of schooling like Knack and Keefer (1997) and Zak and Knack (2001) we are able to include six more countries in our sample (Bulgaria, Czech Republic, Malta, Nigeria, Romania and Russia).

are different but the norms that structure their actions are. Where the norms for trusting and honest behavior are stronger more people will act trusting and honestly, ceteris paribus. When more people are acting trusting and honestly we will see a larger fraction of the respondents answering that most people can be trusted, giving the country a higher score on interpersonal trust.[16]

In our main specifications we use Quality of Government in 1995 from the International Country Risk Guide (ICRG) as the measure of institutional quality. Variable descriptions and descriptive statistics for the variables used in our main specifications are presented in tables 2 and 3. Quality of Government is the average of ICRGs measures of corruption, law and order, and bureaucracy quality, all of which are arguably related to the risk and cost involved in trying to enforce a contract. Ideally, we would use a direct measure for quality of contracting institutions since this would take us even closer to our theoretical investment game, but to our knowledge no such measure is available for a large enough sample for 1995 or earlier. The World Bank's (2006b) measures for the number of procedures involved in, as well as the number of days required for, and the cost of enforcing a contract, comes very close to the concept of contracting institutions but using them is inviting severe problems of reverse causality. That said, in the appendix we show that our findings are robust to using these measures instead of Quality of Government.

3.2 Results

The central results from the growth regressions are presented in table 4. In equation (4.5) interpersonal trust and institutions enter positively and their interaction term enters as negative and all three are estimated with high precision. Comparing specification (4.5) with specification (4.4) and (4.2) we see that the introduction of the interaction term increases the estimated coefficients of interpersonal trust, and a straightforward interpretation is that the growth-enhancing effect of more interpersonal trust when institutions are at a low level is underestimated in (4.2) and (4.4).[17] The significant interaction term means

[16] Zak and Knack (2001) use values on interpersonal trust from as late as 1995 to explain growth between 1970 and 1992, and this raises concerns of reversed causality. Nevertheless, due to sample size considerations we are also forced to include some countries where data on interpersonal trust was not available untill in 1996 or 1997. When available we use interpersonal trust measured between 1990 and 1995. Then we include countries where trust was measured in 1996, 1997, and between 1981-89, which gives us 8 additional countries (Bulgaria, Colombia, Dominican Republic, Pakistan, Peru, the Philippines, Uruguay, and Venezuela).

[17] Institutional quality and trust are correlated (a bivariate correlation of 0.72) and tests show that we have multicollinearity in the model. Institutional quality is even more correlated

that the marginal effect of interpersonal trust will be different at different levels of institutional quality. The average growth rate in per capita GDP between 1995 and 2005 in the sample of countries included in the growth regression is 2.42 percent, with a standard deviation of 1.44 percentage points. At the 25th percentile of institutional quality the marginal effect of a one standard deviation increase in interpersonal trust is 1.10 percentage points higher annual growth in GDP/capita, while it is 0.68 percentage points higher at median institutional quality and 0.36 percentage points at the 75th percentile.[18]

The other side of the coin is that the marginal effect of an improvement in institutional quality also will depend on the level of interpersonal trust. A one standard deviation increases in institutional quality at the 25th percentile of interpersonal trust implies 1.17 percentage points higher annual growth in per capita GDP, while the corresponding figures at the median and at the 75th percentile of interpersonal trust are 0.91 and 0.53 percentage points respectively. Clearly, countries with low institutional quality have the most to gain from better social capital and countries with low levels of social capital has the most to gain from improvements in institutional quality.

To investigate the effects on investment directly the same regressors as in the growth regression are used but the investment rate from World Bank (2006a) is used as regressand.[19] The result from this exercise is presented in table 5 where neither interpersonal trust nor institutions enter significantly when they are included by themselves or together. When we include both of them as well as their interaction in specification (5.5) they get the expected signs and the estimates are statistically significant. Just as was the case for the growth rate the positive effect of social capital on the investment rate is higher at lower levels of institutions, and the positive effect of institutions is higher at lower levels of social capital. The average investment rate in 2000 for the countries included in regression (5.5) is 22.31 percent of GDP, with a standard deviation of 3.93 percentage points. At the 25th percentile of institutional quality the marginal effect of a one standard deviation increase in interpersonal trust is

with initial income and life expectancy (0.82 and 0.89 respectively), illustrating that dropping variables simply due to high correlation would result in a theoretically crippled model. Furthermore, we do not think that this is hurting our results considering that the results are fairly robust to the changes in variables and sample size we have tried.

[18] Zak and Knack (2001) estimated that a standard deviation increase in social capital would increase annual growth by "nearly" 1 percentage point. Thus, while their estimate does not take the differential effects stemming from differences in formal institutional quality into account, it is on the same order of magnitude as ours.

[19] The investment rate correctly termed the gross capital formation in percent of GDP which consists of outlays on fixed assets and inventory investments.

2.67 percentage points higher investment rate, while it is 0.63 percentage points higher at median institutional quality and 0.98 percentage points lower (sic) at the 75th percentile. This negative figure could be the result of our restricted OLS set-up rather a genuine effect, but it is nonetheless clear that the effect will not be the same for all countries.

A one standard deviation increase in institutional quality at the 25th percentile of interpersonal trust implies 3.16 percentage points higher investment rate, while the corresponding figures at the median and at the 75th percentile of interpersonal trust are 2.24 and 0.81 percentage points respectively. That the estimated effect on the investment rate seems too moderate to fully explain the effect on the growth rate is in perfect order. First, it would be a gross oversimplification to assume that institutions and social capital affected growth only via more investments, and that it was so is not something we would advocate. Second, the measure for investment rate is a measure of the quantity of investments rather than the potentially more important aspect of the quality of investments. It is a fairly safe assumption that we will see positive effects on growth from a higher quality of investment, such as a smaller fraction being directed to activities that are not primarily profit generating (monitoring, insurance, security, etc.).

Does our result depict a genuine relationship? We have performed a variety of robustness tests such as instrumenting for social capital and institutions to make larger samples possible, dealing with measurement errors, and yet avoid problems of reverse causality. We also try changes in basic variables like human capital, investment, income, social capital and institutions, inclusion of new conditioning variables such as ethnic fractionalization and legal origins, and so on, and our results are generally stable. For details we refer to the tables and discussion in the appendix of Ahlerup et al (2007).

Is it backwardness in the form of low income, rather than weak institutions, that gives a high return to social capital? Knack and Keefer (1997) and Zak and Knack (2001) interact initial income and trust and get a significant and negative coefficient when regressing growth 1980-1992, and both growth and investment share 1970-1992 respectively. Whereas Knack and Keefer (1997) propose that this implies that trust is more needed where contracting institutions are weak (without providing any evidence that this is the mechanism that makes the interaction term negative), Zak and Knack (2001) argue that the result implies that backwardness is more of an advantage in high-trust countries. The latter argue that this mechanism finds further support in the fact that initial income

becomes nonsignificant once the interaction of initial income and trust is included. When we interact trust with income instead of with institutions we also obtain a negative and significant interaction term.[20] However, we believe that the reason that initial income turns nonsignificant (in one case only marginally so) could well be that the interaction term introduces severe multicollinearity in the model, as indicated by very high variance inflation factors, both in the growth regression and in the investment rate regression.[21] Thus, while we do not aim to explicitly refute Zak and Knack's argument that "formal institutions [...] increase growth in part by building trust" (2001:316), our evidence indicates that formal institutions directly determine the effect of trust on growth. With our estimated direct mechanism whereby formal institutions and social capital affect growth and investment we believe that we have presented a stronger case for differentials in the effects of interpersonal trust.[22]

4 Concluding Remarks

This paper provides new insights into the current debate about the roles of social capital and institutions in economic development. Arguing that there is a missing link from micro studies to macro studies of social capital, it presents a simple theoretical framework and cross-country evidence showing that the effect of social capital on economic growth, as well as on the investment rate, is nonlinear and dependent on the quality of formal institutions. More specifically, it shows that social capital matters the most when formal institutions are weak and almost ceases to matter when institutions are strong.

For example, a one standard deviation increase in social capital is estimated to increase the growth rate by 1.8 percentage points in Nigeria but only by 0.3

[20] See specifications (A6.8) and (A6.9) of table A6 in the appendix for more details.

[21] The highest VIF values are reported for the interaction term. The variance inflation factor for the interaction term is 237.63 in the growth regression (A6.8) and 261.88 for the investment rate regression (A6.9), see the appendix for more details.

The corresponging values for specification (4.5) is 50.00 and for specification (5.5) 37.22. A rule-of-thumb says that VIF values over 10 indicates severe multicollinearity, which means that multicollinearity is a potential problem in all these specifications and that one should be cautious before boasting the result that some variables do not enter as statistically significant

[22] In an attempt to find out which mechanism is the stronger one we included both the interaction of income and trust and the interaction of institutions and trust. In our growth regression the result is that neither of them enters significantly, but when investment rate is the dependent variable the interaction between trust and institution continue to be estimited with precision. One should not overinterpret the results from this kind of exercise but a reasonable interpretation is that if anything the level of formal institutions rather than the level of income matters for the effect of trust on economic performance.

percentage points in Canada, which is in sharp contrast to earlier cross-country studies that argue that social capital always improves economic growth. This implies that present attempts at building social capital creates, if successful, a strong pro-growth potential for poor countries with bad institutions. Concerns have been raised that social capital is waning in the western world and that this will have economic consequences. The findings presented in this paper imply that as long as the formal institutions are kept strong these concerns are premature. Though the Canada-Nigeria example should be regarded as an illustration, the general results are highly robust to a number of different specifications in the basic variables.

The World Bank has made large efforts at promoting better formal institutions in developing countries and also, in recent years, begun focusing on building social capital as well. Efforts aimed at building social capital is conducted in community-level projects. However, the extent to which these efforts have been successful is rather unclear (World Bank, 2005). Our results indicate that much could be gained by making these projects work in areas with poor institutions.

Furthermore, much of the scholarly debate evolves around social capital and formal institutions as either mainly substitutes or complements. The result of this paper suggests that the relationship is mainly about substitution. However, the paper assumes away any dynamic process between the variables. The deeper determinants as well as the evolution of the relationship over time are still largely unresolved issues and provide potential avenues for fruitful research, both theoretical and empirical.

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Table 1: Relevant studies on social capital and institutions.

Author(s)	**Agents**	**Social Capital measure(s)**	**Institutional measure(s)**	**Relevant Findings**
Beckman and Roger (2004)	Hog farmers in two Poland	Dependence on buyer; duration of business relationship; buyer specific investments	Farmers' preception of court strength	Farmers are unwilling to take cases to court when the measures of social capital are high
Beugelsdijk and Smulders (2004)	Citizens of 54 European regions	Density of associational activity; importance of family and friends.	None	Bridging social capital (associational activity) is positively related to economic growth whereas bonding social capital (family ties, etc) is not.
Bigsten et al. (2000)	Manufacturing firms in 6 African countries	Length of business relationship.	None	Renegotiations of broken contracts are helped by (trust creating) long-term relations. Better institutions may encourage risk taking and therefore also lead to more recourse to courts in case of contract breach.
Fafchamps and Minten (2002)	Agricultural traders in Madagascar	Number of relatives in agricultural trade; traders known; and potential informal lenders	None	Positive effect on firm productivity for better connected traders. Social capital lowers transaction costs.
Grootaert and Narayan (2004)	Households in 4 rural communities in Bolivia.	Membership in local associations.	"Effectiveness and universality of municipal government"	Social capital matters more for the poor than the non-poor. Social capital has a positive effect on welfare only in the more weakly institutionalized communities.
Guiso, Sapienza and Zingales (2004)	Households in Italy	Electoral turnout, blood donation and trust (as measured by World Value Surveys).	Mean number of years it takes to complete a first-degree trial.	More social capital implies a more frequent use of checks, more investment in stocks a apposed to cash and more institutional rather than informal credit. The effect is stronger in areas with weaker legal enforcement.
Johnson, McMillan and Woodruff (2002)	Firms and customers in 5 East European countries	(Relational contracting?)	Stated belief that courts can enforce contracts.	Trust-based interaction ("relational contracting") more likely when institutions are weak.
Krishna (2001)	Villages in rural India.	An index created labour-group participation, assessments on the cooperative attitude, and trust, solidarity and	Various variables measuring the agency power: how strong are the caste leaders; local government; patron-client links; political	Social capital is beneficial for development only if it is activated by agency power (i.e. needs some minimum level of institutions). Social capital without agency power does not help development.

		reciprocity.	parties' power; village councils and the capacity of young and educated leaders.	
McMillan and Woodruff (1999)	Managers of manufacturing firms in Vietnam	Percent of relationships involving community sanctions and networks	None	Social capital is important since courts and private property rights are weak. Loss of future business opportunity is not an important sanction. Instead, scrutinization of potential clients, community sanctions, and renegotiation are commonly used.
Miguel, Gertler and Levine (2005)	Districts in Indonesia	Relative expenditures on festivals and ceremonies and a subjective assessment on the traditional level of ethic and mutual cooperation. A number of measures of formal community groups.	None	Initial level of social capital does not predict subsequent industrial development.

Table 2: Variable descriptions

Variable Name	Variable Description
Growth	Annual growth in GDP per capita 1995-2005
InitInc	Log GDP per capita (Constant Prices: Laspeyres), Penn
Inst. /Quality of Government	Quality of government, ICRG
InvPrice	Price level of investment , PPP, Penn
InvRate (Penn)	Investment Share of RGDPL in 1995, Penn
LifeExp	Life expectancy at birth, total (years)
Trust (v.1)	Interpersonal trust in WVS survey 1990-95+96,97,81-89, imputed
Trust (v.2)	Interpersonal trust in WVS survey 1990-95+96-99,81-89, imputed

Table 3: Descriptive statistics

For countries and variables in spec (4.5):

variable	N	Mean	Std dev	Min	Max
Growth	46	2.42	1.44	-0.36	7.87
InitInc	46	9.23	0.85	6.85	10.29
InvPrice	46	86.91	30.65	33.85	171.16
LifeExp	46	72.05	6.86	45.18	79.54
Trust	46	0.32	0.16	0.05	0.66
Inst.	46	0.76	0.21	0.36	1.00

For countries and variables in spec (5.5):

variable	N	Mean	Std dev	Min	Max
InvRate	61	22.31	3.93	13.69	32.76
InitInc	61	9.28	0.85	6.98	10.78
InvPrice	61	67.06	23.47	17.63	137.50
LifeExp	61	72.89	6.89	43.78	81.08
Trust	61	0.30	0.14	0.05	0.66
Inst	61	0.68	0.21	0.31	1.00

Table 4: Social capital, institutions, and growth 1995-2005

	(4.1)	(4.2)	(4.3)	(4.4)	(4.5)
Dep. Variable	gr9505	gr9505	gr9505	gr9505	gr9505
InitInc	-0.280	-0.695	-1.700	-1.504	-1.608
	(0.34)	(1.27)	(2.97)**	(2.87)**	(3.31)**
InvPrice	-0.016	-0.024	-0.028	-0.029	-0.023
	(2.69)*	(3.12)**	(3.68)**	(4.21)**	(3.44)**
LifeExp	0.036	0.024	0.050	0.039	0.052
	(0.43)	(0.43)	(0.93)	(0.79)	(1.13)
Trust		6.668		4.028	15.896
		(5.41)**		(3.14)**	(3.59)**
Inst			8.021	5.500	8.728
			(5.94)**	(3.76)**	(4.90)**
Trust*Inst					-14.143
					(2.78)**
Constant	3.857	7.053	10.827	10.567	7.594
	(2.01)+	(3.46)**	(4.89)**	(5.26)**	(3.54)**
N	46	46	46	46	46
R^2	0.15	0.51	0.54	0.63	0.70

Note: Absolute value of t-statistic in parentheses, + significant at 10%; * significant at 5%; ** significant at 1%. In (4.1) robust standard errors are used. In all regressions InitInc, InvPrice, and LifeExp are from 1995, while Trust is Interpersonal Trust(v.1) and Inst. is Quality of Government in 1995.

Table 5: Social capital, institutions, and the investment rate in 2000.

	(5.1)	(5.2)	(5.3)	(5.4)	(5.5)
Dep. Variable	InvRate	InvRate	InvRate	InvRate	InvRate
InitInc	0.277	0.122	-0.640	-0.639	-1.952
	(0.24)	(0.10)	(0.47)	(0.46)	(1.60)
InvPrice	-0.037	-0.038	-0.042	-0.042	-0.010
	(1.21)	(1.25)	(1.38)	(1.36)	(0.36)
LifeExp	0.163	0.164	0.144	0.144	0.144
	(1.42)	(1.42)	(1.25)	(1.23)	(1.44)
Trust		1.865		-0.142	55.616
		(0.44)		(0.03)	(4.33)**
Inst			5.414	5.475	30.728
			(1.19)	(1.10)	(4.39)**
Trust*Inst					-73.752
					(4.56)**
Constant	10.352	11.202	16.927	16.936	9.491
	(1.57)	(1.62)	(1.97)+	(1.96)+	(1.25)
N	61	61	61	61	61
R^2	0.08	0.08	0.10	0.10	0.35

Absolute value of t statistics in parentheses, + significant at 10%; * significant at 5%; ** significant at 1%. In all regressions InvRate, InitInc, InvPrice, and LifeExp are from 2000, while Trust is Interpersonal Trust(v.2) and Inst. is Quality of Government in 2000.

Figure 1: The investment game

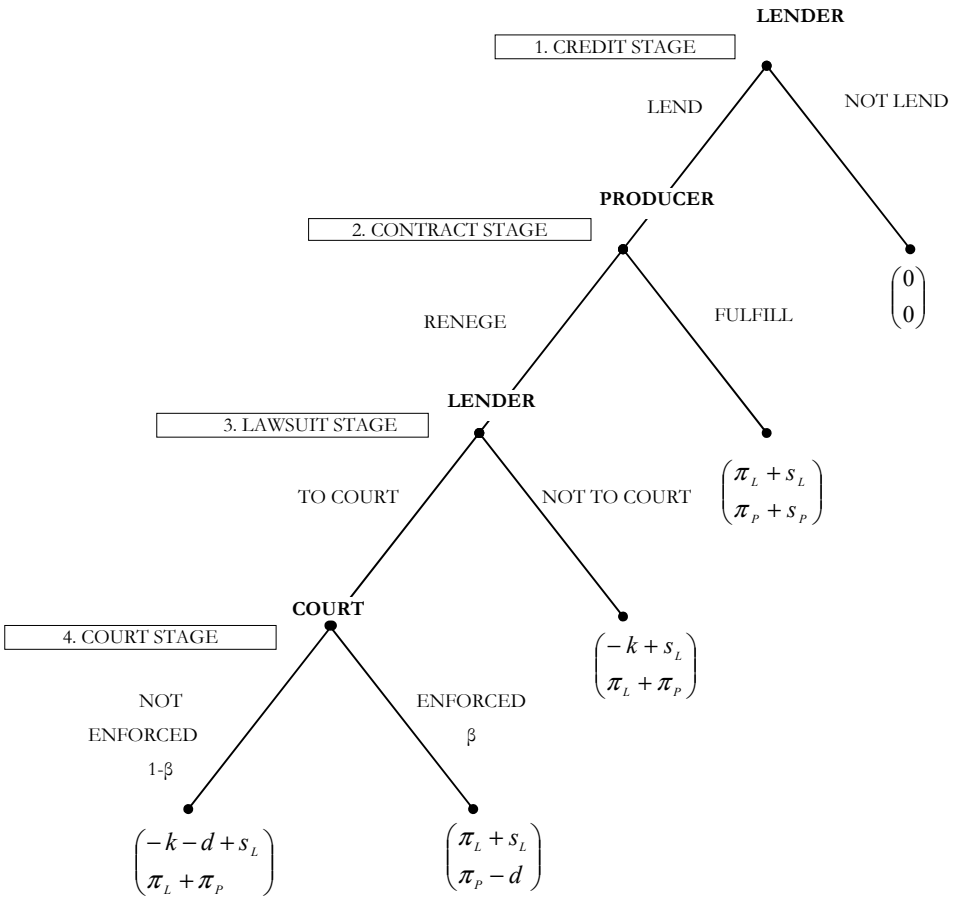


Figure 2: Investment game equilibria under varying strengths of court institutions and social capital.

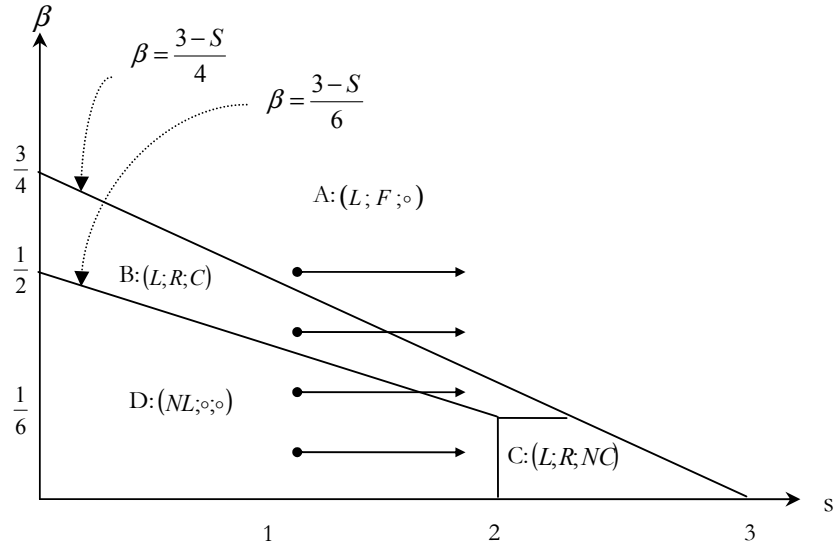
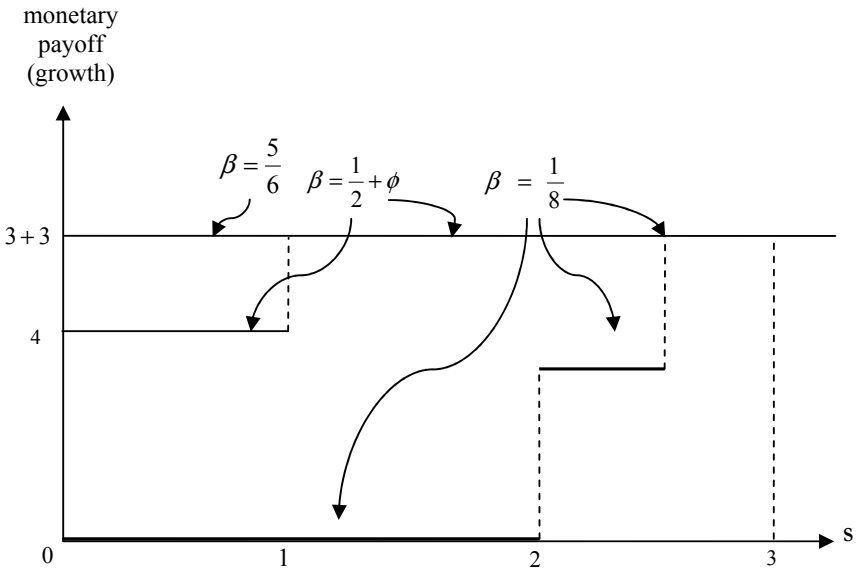


Figure 3: Relationship between total monetary payoff (growth) and social capital under varying levels of court strength.



Appendix to Social Capital vs Institutions in the Growth Process (not for publication)

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Robustness analysis

Among the more important problems with growth regressions in general is that there is a phletora of possible explanatory variables (Sala-i-Martin, 1997 and Brock and Durlauf, 2001) and that possible parameter heterogeneity is not taken care of carefully enough (Durlauf and Fafchamps, 2004). While the latter problem is the raison d'être of this paper the former is in essence impossible to avoid, but we do what we can by testing alternative specifications. The more specific problem of robustness of the econometric work on social capital is discussed in Durlauf (2002), Durlauf and Fafchamps (2004), and Beugelsdijk, de Groot, and van Schaik (2004). In the latter the findings in Knack and Keefer (1997) and Zak and Knack (2001) are scrutinized in several ways and it is argued that while the latter study is fairly robust the former is not and that this is due to differences in sample size rather than omitted variables. Our sample is larger than any of theirs.

Since it is not unlikely that both interpersonal trust and institutions are measured with error, may be correlated with possible omitted variables that end up in the error term, and since we would like to be able to obtain a larger sample, which requires including post-1997 values, we reestimate specification (4.5) with IV methods in specifications (A1.2) and (A1.3) of table A1. The instruments used in (A1.2) and (A1.3) are valid since the overidentifying restrictions cannot be rejected, but they are on the border of being weak following the critical values in Stock and Yogo (2002).[1] The solution is to use LIML which is more

[1] The instruments used are are legor_uk (British legal origin), legor_so (Socialist legal

reliable when instruments are weak.[2] Equation (A1.2) and (A1.3) confirm the findings in equation (4.5) and (A1.1). Testing show that the exogeneity of the instrumented variables can be rejected which means that the OLS estimates are biased.[3]

We have the same concerns for the investment rate regressions as for the growth regressions so we reestimate specification (5.5) with IV methods in specifications (A1.5) and (A1.6) of table A1. That the magnitude of the estimated coefficients increase when we use IV methods implying that the OLS estimates suffered from measurement error driven attenuation bias, while a Hausman test of the instrumented variables shows that they are exogenous, which implies that OLS would be consistent. We present the 2SLS and LIML results for completeness.

In table A2, A3, and A4 we try different proxies for our basic variables: (1) investment - the result is robust to using gross capital formation as share of GDP from the World Bank (2006), investment rate as share of GDP from Heston et al. (2006), and telephone mainlines from World Bank (2006); (2) human capital - the result is robust to using average years of schooling and school enrolment, both from World Bank (2006); (3) initial income - the result is robust to using non-logged values and values from World Bank (2006); (4) interpersonal trust - the result is robust to using a variety of periods and sample sizes for interpersonal trust from WVS (2006); (5) institutions - the result is robust to using risk of expropriation 1982-97 from the PRS, quality of public institutions in 1982 from ICRG, bureaucratic delays 1972-1995 from BERI, and the number of procedures involved in, as well as the number of days, and the cost of enforcing a contract from the World Bank, as well as a linear combination of the three. We also test for measures of corruption, the social infrastructure index and government antidiversion policies from Hall and Jones (1999) and get the same results (not

origin), abslat (Distance from equator), and distcr (Mean distance from coast or river). See table A1 and table A9 for more information.

[2] We cannot use the often cited F<10 rule of thumb (Staiger and Stock, 1997) since we have more than one endogenous variable. In the terminology of Table 1 and 2 in Stock and Yogo (2002) we have n=3 (endogenous) and K=4 (instruments) and we accept a 10% 2SLS bias (compared to 15% which is used for the rule of thumb). Table 1 do not list values for n=3 and K<5, but the critical F-value for the 2SLS bias with n=3 and K=5 is 6.61, and the value for K=4 would be lower. Since the lowest first stage F-value for our equation (A1.2) is 7.12 we could conclude that we do not have weak instruments. Table 2 lists critical values for 2SLS size but do not include n>2, so for the sceptic we present LIML estimates as well. Stock and Yogo (2002) argues that if instruments are weak LIML is better than 2SLS, since the former is median unbiased in presence of weak instruments.

[3] We test the overidentifying restrictions, and find that instruments are valid, and testing of the exclusion restriction shows that OLS estimates will be inconsistent.

reported). Since the various measures are available for samples of different sizes this can also be seen as a mild test of the robustness of the results to different samples.

In tables A5 and A6 we present some of the controls for other conditioning variables that we have performed, and these include proxies for social distance (fractionalization from Alesina et al. (2003)) and proximate causes of unrest (polarization from Reynal-Querol, 2006), as well as proxies for historical factors such as state antiquity from Bockstette et al. (2002), legal origin and identity of past colonial power, distance from the equator, government share of GDP and openness to trade as share of GDP, and the main result remains standing and the magnitudes of the estimated coefficients are remarkably stable.

In (A6.4) to (A6.7) we show how the effects of investment prices and investment ratio, as well as the effect of initial income, change as we introduce trust and institutions. The coefficient for investment ratio falls and eventually becomes nonsignificant while we see the opposite trend for initial income and investment prices. One interpretation of this is that the effect of trust and institutions on growth does go via a higher investment ratio, and that the benefit of relative backwardness and low investment prices is conditional on the institutional framework.

Finally, in table A7 we restrict our sample by excluding countries with very high or very low values on institutions and income and find that the results are mostly robust to these smaller samples with less variation (see also table A3, specifications (A3.5) and (A3.6), for the same exercise with trust). We also find that these results seem to hold also in the very small sample of 21 OECD countries for which we have data on our variables, even if the estimated coefficients seem unreasonably high. This could shed light on the conflicting findings in Helliwell (1996) of a negative association between social capital, measured both as trust and as associations, and productivity growth 1962-89 in a sample of OECD countries and in Knack (2001) of a positive correlation of trust and investment in the OECD, since the failure to include relevant interaction terms and other omitted variables easily makes regressions very sensitive.

In Table A8 we list all countries that are included in specification (5.5) along with their score on interpersonal trust, institutional quality, as well as which income group they belong to. The table also lists the countries included in specifications (4.5), (A3.5), and (A3.6), the latter two specifications based on excluding countries with low trust, and both low and high trust respectively. What is evident is that the OECD countries and Upper Middle Income countries

(based on World Bank classifications) are overrepresented in our sample, and that the lower income countries are underrepresented. This may not be too big a problem since the main difference in e.g. level of trust between different income groups is mainly between the OECD and the rest. Following the World Bank classifications the mean value for interpersonal trust in our sample is 0.42 in the OECD, 0.24 among the Upper Middle Income countries, 0.21 among Lower Middle Income countries, 0.24 among the Low Income countries (5 observations), and 0.20 among High Income, non-OECD countries (2 observations).

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Table A1: IV Estimations for Growth 1995-2005 and Investment Rate 2000.

	(A1.1)	(A1.2)	(A1.3)	(A1.4)	(A1.5)	(A1.6)
Dep. Variable	Growth	Growth	Growth	InvRate	InvRate	InvRate
Est. Method	OLS	2SLS	LIML	OLS	2SLS	LIML
InitInc	-0.452	-1.224	-1.412	-1.952	-1.820	-1.941
	(0.61)	(0.82)	(0.73)	(1.60)	(0.95)	(0.95)
InvPrice	-0.036	-0.010	0.001	-0.010	0.014	0.018
	(4.00)**	(0.40)	(0.04)	(0.36)	(0.36)	(0.44)
LifeExp	-0.014	0.009	0.023	0.144	0.148	0.149
	(0.18)	(0.08)	(0.15)	(1.44)	(1.29)	(1.26)
Trust	20.656	81.121	102.852	55.616	79.729	86.135
	(5.23)**	(2.39)*	(2.09)*	(4.33)**	(1.91)+	(1.85)+
Inst	7.466	28.040	35.223	30.728	41.577	44.549
	(2.82)**	(1.87)+	(1.68)+	(4.39)**	(1.98)+	(1.91)+
Trust*Inst	-20.445	-95.135	-122.915	-73.752	-112.338	-121.241
	(4.02)**	(2.16)*	(1.93)+	(4.56)**	(2.06)*	(1.98)+
Constant	4.369	-7.798	-13.162	9.491	0.400	-0.755
	(1.40)	(0.69)	(0.84)	(1.25)	(0.03)	(0.05)
N	61	60	60	61	60	60
R^2	0.46	-0.52	-1.38	0.35	0.24	0.20

Note: Absolute value of t-statistic in parentheses, + significant at 10%; * significant at 5%; ** significant at 1%. In (A1.1) robust standard errors are used. In (A1.1), (A1.2), and (A1.2) InitInc, InvPrice, and LifeExp are from 1995. In (A1.4), (A1.5), and (A1.6) InvRate, InitInc, InvPrice, and LifeExp are from 2000. Trust is Interpersonal Trust(v.2) and Inst. is Quality of Government in 2000. Instrumented variables are: Trust, Inst, and Trust*Inst. Instruments are legor_uk legor_so abslat distcr. Spec (A1.2): First stage F-values are 11.90 for Trust, 7.12 for Inst, and 12.05 for Trust*Inst. Sargan's test of overidentification of all instruments: P-value=0.18472. Wu-Hauman test for exogenous regressors: P-value= 0.00346. Spec (4.3): First stage F-value: same as (A1.2). Anderson-Rubin's test of overidentification of all instruments, P-value= 0.23032. Spec (A1.5): First stage F-values are 9.10 for Trust, 6.91 for Inst, and 9.94 for Trust*Inst. Sargan's test of overidentification of all instruments: P-value= 0.27626. Wu-Hauman test for exogenous regressors: P-value= 0.40179. Spec (A1.6): First stage F-value: same as (A1.5). Anderson-Rubin's test of overidentification of all instruments, P-value= 0.27951.

Table A2: Changes in Basic Variables.

Dep.Variable.	(A2.1) Growth	(A2.2) Growth	(A2.3) Growth	(A2.4) Growth	(A2.5) Growth	(A2.6) Growth	(A2.7) Growth	(A2.8) Growth	(A2.9) Growth
InitInc (Penn)	-1.608	-1.757	-1.733	-2.160	-2.342	-1.676	-1.608		
	(3.31)**	(4.16)**	(6.59)**	(4.20)**	(4.74)**	(2.93)**	(3.31)**		
InitInc (World Bank)								-1.047	
								(2.89)**	
InitInc (Penn, not logged)									-0.000
									(3.66)**
InvPrice	-0.023	-0.017	-0.025				-0.023	-0.016	-0.020
	(3.44)**	(1.99)+	(5.37)**				(3.44)**	(1.80)+	(2.95)**
InvRate (World Bank)				0.039					
				(1.28)					
InvRate (Penn)					0.018				
					(0.64)				
Telephone mainlines						-0.004			
						(2.14)*			
LifeExp	0.052			0.096	0.106	0.107	0.052	0.048	-0.003
	(1.13)			(1.95)+	(2.08)*	(2.38)*	(1.13)	(0.98)	(0.11)
Average years of schooling		0.147							
		(1.26)							
Secondary school enrollment			0.031						
			(3.75)**						
Trust	15.896	16.514	15.512	18.953	20.340	18.239	15.896	13.782	14.794
	(3.59)**	(3.29)**	(3.88)**	(3.90)**	(4.23)**	(3.90)**	(3.59)**	(3.01)**	(3.42)**
Inst	8.728	9.317	8.508	8.253	8.881	9.291	8.728	7.495	7.739
	(4.90)**	(5.09)**	(6.01)**	(3.90)**	(4.29)**	(4.84)**	(4.90)**	(4.32)**	(4.68)**
Trust*Inst	-14.143	-15.636	-14.543	-17.783	-19.618	-15.903	-14.143	-11.401	-11.158
	(2.78)**	(2.66)*	(3.53)**	(3.18)**	(3.58)**	(2.89)**	(2.78)**	(2.18)*	(2.24)*
Constant	7.594	10.796	10.643	6.955	8.046	2.825	7.594	2.293	-1.254
	(3.54)**	(3.80)**	(6.20)**	(2.80)**	(3.27)**	(0.86)	(3.54)**	(1.13)	(0.53)
N	46	40	42	46	46	46	46	46	46
R^2	0.70	0.72	0.76	0.62	0.61	0.64	0.70	0.68	0.71

Note: Absolute value of t statistics in parentheses, + significant at 10%; * significant at 5%; ** significant at 1%. In all regressions InitInc, InvPrice, and LifeExp are from 1995, while Trust is Interpersonal Trust(v.1) and Inst. is Quality of Government in 1995.

Table A3: Changes in Social Capital Definition and Sample.

Dep. Variable	(A3.1) Growth	(A3.2) Growth	(A3.3) Growth	(A3.4) Growth	(A3.5) Growth	(A3.6) Growth
InitInc	-1.392	-1.465	-1.475	-1.318	-1.416	-1.207
	(2.98)**	(3.05)**	(3.06)**	(2.72)**	(2.87)**	(2.00)+
InvPrice	-0.022	-0.024	-0.024	-0.023	-0.022	-0.022
	(3.24)**	(3.66)**	(3.61)**	(3.16)**	(3.42)**	(3.15)**
LifeExp	0.035	0.047	0.044	0.037	0.039	0.026
	(0.81)	(1.05)	(0.97)	(0.82)	(0.83)	(0.48)
Inst	9.790	8.324	8.684	10.128	10.246	8.728
	(5.51)**	(3.20)**	(3.46)**	(5.37)**	(4.45)**	(2.61)*
Trust	17.438	16.868	17.083	17.755	22.573	17.771
	(3.75)**	(2.59)*	(2.68)*	(3.33)**	(3.11)**	(1.79)+
Trust*Inst	-17.105	-15.094	-15.428	-17.948	-21.229	-16.203
	(3.24)**	(2.04)+	(2.16)*	(2.95)**	(2.75)**	(1.46)
Constant	6.244	6.966	7.047	5.351	5.244	5.604
	(2.81)**	(2.60)*	(2.66)*	(2.16)*	(1.95)+	(1.80)+
Trust (version)	(v.2)	(v.3)	(v.4)	(v.5)	(v.1)	(v.1)
Sample	All available	All available	All available	All available	Trust>p10	Trust>p10 & Trust<p90.
N	51	38	37	51	40	34
R^2	0.66	0.73	0.73	0.64	0.71	0.54

Note: Absolute value of t statistics in parentheses+ significant at 10%; * significant at 5%; ** significant at 1%. In all regressions InitInc, InvPrice, and LifeExp are from 1995, Inst. is Quality of Government in 1995, , while Trust is Interpersonal Trust (v.x). See Table A9. (variable description for exact coding. Trust>p10 means that countries with a trust value less than the 10^{th} percentile is removed from the sample.

Table A4: Changes in Institutional Measure.

Dep. Var.	(A4.1) Growth	(A4.2) Growth	(A4.3) Growth	(A4.4) Growth	(A4.5) Growth	(A4.6) Growth	(A4.7) Growth	(A4.8) Growth
InitInc	-1.525	-1.057	-0.494	-1.048	-3.400	-2.818	-3.306	-3.446
	(2.64)*	(1.36)	(0.59)	(1.27)	(3.83)**	(5.23)**	(3.48)**	(6.68)**
InvPrice	-0.017	-0.015	-0.029	-0.016	0.003	0.003	-0.000	0.003
	(2.35)*	(1.72)+	(2.58)*	(1.58)	(0.18)	(0.33)	(0.01)	(0.35)
LifeExp	0.041	0.050	-0.005	0.028	0.212	0.206	0.241	0.220
	(0.80)	(0.80)	(0.08)	(0.35)	(2.58)*	(2.95)**	(2.41)*	(3.58)**
Trust	21.225	17.783	23.124	16.947	5.751	5.895	5.032	5.150
	(2.41)*	(3.91)**	(4.00)**	(2.57)*	(3.74)**	(2.22)*	(3.01)**	(2.33)*
Inst	0.983	0.417	1.060	1.896	1.821	1.969	2.049	3.762
	(3.44)**	(1.79)+	(2.74)*	(1.66)	(4.33)**	(2.03)*	(4.63)**	(4.19)**
Trust*Inst	-1.834	-1.469	-3.151	-4.455	-3.835	-5.901	-4.543	-8.141
	(1.88)+	(2.71)*	(3.17)**	(1.83)+	(3.02)**	(1.76)+	(3.53)**	(2.80)**
Constant	5.202	4.857	2.725	5.104	17.162	12.403	14.758	17.383
	(1.72)+	(1.41)	(1.08)	(1.33)	(3.89)**	(3.65)**	(3.47)**	(4.87)**
Trust (version)	(v.1)	(v.1)	(v.1)	(v.1)	(v.5)	(v.5)	(v.5)	(v.5)
Institutional Measure	Risk of Expropriation, 1982 - 1997	Quality of Public Institutions, 1982	Bureaucratic delays, 1972 - 1995	Contract Enforceability, 1972 -1989	Cost of contract enforcement	Days for contract enforcement	Procedures in contract enforcement	Composite contract enforcement institutions
N	46	39	38	28	62	60	60	60
R^2	0.62	0.62	0.62	0.47	0.47	0.41	0.48	0.54

Note: Absolute value of t statistics in parentheses, + significant at 10%; * significant at 5%; ** significant at 1%.

Table A5: Conditioning Variables.

	(A5.1)	(A5.2)	(A5.3)	(A5.4)	(A5.5)	(A5.6)	(A5.7)	(A5.8)
Dep. Variable	Growth	Growth	Growth	Growth	Growth	Growth	Growth	Growth
InitInc	-1.367	-1.559	-1.502	-2.159	-2.228	-1.708	-1.527	-1.545
	(2.89)**	(3.33)**	(2.94)**	(3.71)**	(4.00)**	(3.07)**	(2.84)**	(3.01)**
InvPrice	-0.024	-0.024	-0.024	-0.019	-0.019	-0.022	-0.024	-0.017
	(3.74)**	(3.65)**	(3.49)**	(2.62)*	(2.70)*	(2.94)**	(3.21)**	(1.93)+
LifeExp	0.011	0.018	0.036	0.098	0.116	0.059	0.045	0.055
	(0.23)	(0.39)	(0.71)	(1.91)+	(2.26)*	(1.16)	(0.84)	(0.94)
Trust	14.495	15.015	16.511	13.684	13.208	16.574	15.378	14.258
	(3.41)**	(3.51)**	(3.64)**	(3.04)**	(2.95)**	(3.39)**	(2.98)**	(2.81)**
Inst	7.951	8.790	9.085	9.117	9.620	9.124	8.153	7.366
	(4.60)**	(5.13)**	(4.87)**	(4.76)**	(5.25)**	(4.42)**	(3.43)**	(3.26)**
Trust*Inst	-12.732	-12.986	-14.820	-12.227	-11.923	-14.969	-13.375	-12.179
	(2.61)*	(2.64)*	(2.85)**	(2.40)*	(2.36)*	(2.63)*	(2.29)*	(1.86)+
Constant	9.468	9.820	7.699	8.968	7.710	7.775	7.898	7.097
	(4.31)**	(4.21)**	(3.56)**	(4.05)**	(3.13)**	(3.46)**	(3.27)**	(2.55)*
Control Variable(s)	Ethnic Fractionalization	Linguistic Fractionalization	Religious Fractionalization	Ethnic Polarization	Religious Polarization	State Antiquity	Colonial dummies	Legal Origin Dummies.
Coefficient of control	-1.474	-1.183	-0.467	-0.340	0.596	-0.284	-	-
	(2.28)*	(2.04)*	(0.71)	(0.61)	(1.07)	(0.42)		
N	46	46	46	41	41	45	46	46
R^2	0.73	0.73	0.70	0.74	0.74	0.69	0.70	0.72

Absolute value of t statistics in parenthese, s+ significant at 10%; * significant at 5%; ** significant at 1%. The colonial and legal origin dummies can be found in Table A9.

Table A6: More Conditioning Variables, Effect on Investment and Income-Mediated Social Capital.

Dep. Variable	(A6.1) Growth	(A6.2) Growth	(A6.3) Growth	(A6.4) Growth	(A6.5) Growth	(A6.6) Growth	(A6.7) Growth	(A6.8) Growth	(A6.9) InvRate
InitInc	-1.778	-1.606	-1.556	0.032	-0.394	-1.188	-1.371	-0.357	3.138
	(3.73)**	(3.26)**	(3.24)**	(0.05)	(0.75)	(2.24)*	(2.70)*	(0.56)	(1.97)+
InvPrice	-0.019	-0.023	-0.024	-0.016	-0.023	-0.028	-0.023	-0.023	-0.004
	(2.86)**	(3.19)**	(3.61)**	(1.64)	(3.21)**	(4.17)**	(3.48)**	(3.39)**	(0.12)
LifeExp	0.059	0.051	0.048	-0.004	-0.013	0.010	0.030	0.020	0.127
	(1.33)	(1.11)	(1.05)	(0.05)	(0.24)	(0.21)	(0.63)	(0.44)	(1.21)
Trust	14.158	15.972	15.879		6.595	4.305	14.524	35.585	170.097
	(3.25)**	(3.51)**	(3.63)**		(5.70)**	(3.46)**	(3.25)**	(3.13)**	(3.76)**
Inst	7.356	8.781	8.392			4.813	7.817	4.810	9.553
	(3.97)**	(4.66)**	(4.73)**			(3.31)**	(4.18)**	(3.50)**	(2.07)*
Trust*Inst	-12.990	-14.225	-13.925				-12.274		
	(2.63)*	(2.73)**	(2.77)**				(2.37)*		
Distance from Equator	0.027								
	(1.98)+								
Government share of GDP		-0.002							
		(0.10)							
Openness as share of GDP			0.005						
			(1.43)						
InvRate (World Bank)				0.080	0.076	0.054	0.038		
				(2.03)*	(2.55)*	(1.98)+	(1.43)		
Trust*InitInc								-3.374	-18.037
								(2.79)**	(3.78)**
Constant	8.555	7.633	7.406	1.964	5.225	8.821	6.754	1.416	-21.899
	(4.03)**	(3.46)**	(3.50)**	(0.75)	(2.55)*	(4.14)**	(3.08)**	(0.38)	(1.70)+
N	46	46	46	46	46	46	46	46	61
R^2	0.72	0.70	0.71	0.23	0.57	0.67	0.71	0.70	0.29

Note: Absolute value of t statistics in parentheses, + significant at 10%; * significant at 5%; ** significant at 1%, %. In (A6.1) to (A6.8) InitInc, InvPrice, and LifeExp are from 1995, while Trust is Interpersonal Trust(v.1) and Inst. is Quality of Government in 1995. In (A6.9) InitInc, InvPrice, and LifeExp are from 2000, while Trust is Interpersonal Trust(v.2) and Inst. is Quality of Government in 2000.

Table A7: More Sample Restrictions.

Dep. Variable	(A7.1) Growth	(A7.2) Growth	(A7.3) Growth	(A7.4) Growth	(A7.5) Growth	(A7.6) Growth	(A7.7) Growth	(A7.8) Growth
InitInc	-1.596	-1.466	-3.509	-3.620	-1.935	-1.967	-3.782	-0.830
	(3.23)**	(2.72)*	(6.68)**	(6.57)**	(4.09)**	(3.49)**	(2.66)*	(1.24)
InvPrice	-0.021	-0.024	0.003	0.007	-0.020	-0.019	-0.012	-0.030
	(2.87)**	(2.73)*	(0.41)	(0.86)	(2.89)**	(2.22)*	(2.06)+	(2.50)*
LifeExp	0.024	0.014	0.198	0.231	0.015	0.015	-0.077	0.001
	(0.50)	(0.27)	(3.06)**	(3.35)**	(0.33)	(0.28)	(0.82)	(0.01)
Trust	18.762	11.231	6.994	6.487	17.771	17.620	80.896	3.938
	(3.87)**	(1.62)	(2.62)*	(2.33)*	(4.21)**	(3.75)**	(1.89)+	(0.38)
Inst	9.322	6.397	4.474	5.400	9.151	9.175	31.960	3.840
	(4.52)**	(2.10)*	(4.07)**	(3.68)**	(5.31)**	(4.52)**	(1.97)+	(0.85)
Trust*Inst	-16.924	-5.306	-10.450	-13.357	-15.306	-15.122	-79.855	5.526
	(3.04)**	(0.56)	(2.96)**	(2.56)*	(3.18)**	(2.71)*	(1.85)+	(0.32)
Constant	8.739	10.303	19.050	17.675	12.580	12.733	15.141	7.692
	(2.94)**	(2.97)**	(5.06)**	(4.42)**	(4.36)**	(3.93)**	(1.87)+	(2.75)*
Trust (version)	(v.1)	(v.1)	(v.5)	(v.5)	(v.1)	(v.1)	(v.1)	(v.1)
Institutional Measure	Quality of Government	Quality of Government	Composite Contract Enforcement	Composite Contract Enforcement	Quality of Government	Quality of Government	Quality of Government	Quality of Government
Sample	Inst>p10	Inst>p10 & Inst<p90	Inst>p10	Inst>p10 & Inst<p90	InitInc>p10	InitInc>p10 & InitInc<p90	OECD	Non-OECD
N	41	32	54	47	42	36	21	25
R^2	0.73	0.76	0.57	0.59	0.75	0.74	0.67	0.80

Absolute value of t statistics in parentheses, + significant at 10%; * significant at 5%; ** significant at 1%. In all regressions InitInc, InvPrice, and LifeExp are from 1995.

Table A8: Countries included in the regressions.

Country	(A3.6)	(A3.5)	(4.5)	World Bank Income Region	Trust (v.2)	Inst.
Australia	1	1	1	High income: OECD	0.40	0.94
Austria	1	1	1	High income: OECD	0.32	0.89
Canada	1	1	1	High income: OECD	0.52	1.00
France	1	1	1	High income: OECD	0.23	0.78
Germany	1	1	1	High income: OECD	0.35	0.87
Japan	1	1	1	High income: OECD	0.44	0.78
Netherlands	1	1	1	High income: OECD	0.53	1.00
Switzerland	1	1	1	High income: OECD	0.41	0.94
United States	1	1	1	High income: OECD	0.44	0.89
Belgium	1	1	1	High income: OECD	0.33	0.79
Iceland	1	1	1	High income: OECD	0.44	1.00
Ireland	1	1	1	High income: OECD	0.47	0.78
Italy	1	1	1	High income: OECD	0.34	0.75
Malta	1	1	1	High income: nonOECD	0.24	0.78
Portugal	1	1	1	High income: OECD	0.21	0.81
Spain	1	1	1	High income: OECD	0.33	0.74
United Kingdom	1	1	1	High income: OECD	0.44	0.94
Argentina	1	1	1	Upper middle income	0.20	0.69
Bulgaria	1	1	1	Lower middle income	0.30	0.57
Chile	1	1	1	Upper middle income	0.23	0.75
Czech Republic	1	1	1	Upper middle income	0.27	0.75
Hungary	1	1	1	Upper middle income	0.25	0.85
Korea, Republic of	1	1	1	High income: OECD	0.34	0.64
Russia	1	1	1	Upper middle income	0.30	0.31
Slovak Republic	1	1	1	Upper middle income	0.22	0.73
Uruguay	1	1	1	Upper middle income	0.22	0.50
Venezuela	1	1	1	Upper middle income	0.14	0.47
Dominican Republic	1	1	1	Lower middle income	0.26	0.53
Mexico	1	1	1	Upper middle income	0.33	0.52
Poland	1	1	1	Upper middle income	0.29	0.64
Romania	1	1	1	Lower middle income	0.16	0.47
South Africa	1	1	1	Upper middle income	0.28	0.44
Bangladesh	1	1	1	Low income	0.21	0.39
India	1	1	1	Low income	0.36	0.64
Nigeria	1	1	1	Low income	0.20	0.31
Pakistan	1	1	1	Low income	0.21	0.44
Denmark	0	1	1	High income: OECD	0.58	1.00
Norway	0	1	1	High income: OECD	0.65	0.94
Finland	0	1	1	High income: OECD	0.63	1.00
Sweden	0	1	1	High income: OECD	0.66	1.00
China	0	1	1	Lower middle income	0.56	0.49
Brazil	0	0	1	Lower middle income	0.07	0.44
Colombia	0	0	1	Lower middle income	0.11	0.34
Turkey	0	0	1	Upper middle income	0.10	0.53
Peru	0	0	1	Lower middle income	0.05	0.50
Philippines	0	0	1	Lower middle income	0.06	0.56
Luxembourg	0	0	0	High income: OECD	0.26	0.94
New Zealand	0	0	0	High income: OECD	0.49	0.94
Slovenia	0	0	0	High income: nonOECD	0.16	0.75
Estonia	0	0	0	Upper middle income	0.28	0.75
Greece	0	0	0	High income: OECD	0.24	0.69
Lithuania	0	0	0	Upper middle income	0.31	0.56
Belarus	0	0	0	Lower middle income	0.25	0.49
Croatia	0	0	0	Upper middle income	0.22	0.68
Latvia	0	0	0	Upper middle income	0.19	0.61
Ukraine	0	0	0	Lower middle income	0.30	0.44
Albania	0	0	0	Lower middle income	0.27	0.31
Armenia	0	0	0	Lower middle income	0.25	0.36
Azerbaijan	0	0	0	Lower middle income	0.21	0.42
El Salvador	0	0	0	Lower middle income	0.15	0.56
Moldova	0	0	0	Low income	0.22	0.56

All countries in this table are indluded in (5.5), and the column header (4.5) refers to the equation with that number and so on. Countries with a 1 in respective column are included in the regression with that number. Trust is Trust(v2), and inst is Quality of Government in 2000.

Table A9: Variable Descriptions.

Variable Name	Variable Description	Source:
Average Years of Schooling	Average years of schooling of adults in 1995 (aged 15+)	World Bank (2006a)
bri_col	British colony	CEPII (2006)
Bureaucratic delays 1972-1995	Bureaucratic delays 1972-1995, BERI	Teorell et al. (2006)
Composite contract enforcement	Composite court quality, calculated as the mean of the other three measures from World Bank (2006b)	World Bank (2006b)
Contract enforceability 1982-89	Contract enforceability, 1982-89, BERI	La Porta et al. (1997)
Cost of contract enforcement	Cost to enforce contract (norm) in 2003	World Bank (2006b)
Days for contract enforcement	Time to enforce contract (norm) in 2003	World Bank (2006b)
Abslat/Distance from Equator	Absolute latitude in degrees	CEPII (2006)
Distcr	Mean distance to coast or river	Gallup et al. (2001)
esp_col	Spanish colony	CEPII (2006)
Ethnic Fractionalization	Ethnic fractionalization	Alesina et al. (2003)
Ethnic Polarization	(mean) ETH12POL	Reynal-Querol (2006)
fra_col	French colony	CEPII (2006)
Government share of GDP	Government Share of RGDPL in 1995	Heston et al. (2006)
Growth	Annual growth in GDP per capita1995-2005	World Bank (2006a)
InitInc	Log GDP per capita (Constant Prices: Laspeyres)	Heston et al. (2006)
Inst. /Quality of Government	Quality of government, ICRG	Teorell et al. (2006)
InvPrice	Price level of investment , PPP	Heston et al. (2006)
InvRate / InvRate (World Bank)	Gross capital formation in 2000(% of GDP)	World Bank (2006a)
InvRate (Penn)	Investment Share of RGDPL in 1995	Heston et al. (2006)
legor_fr	French legal origin	La Porta et al. (1997)
legor_sc	Scandinavian legal origin	La Porta et al. (1997)
legor_so	Socialist legal origin	La Porta et al. (1997)
legor_uk	British legal origin	La Porta et al. (1997)
LifeExp	Life expectancy at birth, total (years)	World Bank (2006a)
Linguistic Fractionalization	Linguistic fractionalization	Alesina et al. (2003)
Openness as share of GDP	Openness in Constant Prices in 1995	Heston et al. (2006)
Procedures in contract enforcement	Procedures to enforce contract(norm) in 2003	World Bank (2006b)
prt_col	Portugese colony	CEPII (2006)
Quality of public institutions, 1982	Quality of public institutions, 1982	Teorell et al. (2006)
Religious Fractionalization	Religious fract.	Alesina et al. (2003)
Religious Polarization	Rel pol	Reynal-Querol (2006)
Risk of Expropriation 1982-1997	Risk of expropriation 1982-1997, ICRG	Glaeser et al. (2004)
Secondary School Enrollment	School enrollment, secondary (%gross)	World Bank (2006a)
State Antiquity	State Antiquity by 1950, v3.	Putterman (2006)
Telephone Mainlines	Telephone mainlines in 1995 (per 1,000 people)	World Bank (2006a)
Trust (v.1)	Interpersonal trust in survey 1990-95+96,97,81-89, imputed	WVS (2006)
Trust (v.2)	Interpersonal trust in survey 1990-95+96-99,81-89, imputed	WVS (2006)
Trust (v.3)	Interpersonal trust in survey 1981-95	WVS (2006)
Trust (v.4)	Interpersonal trust in survey 1990-95	WVS (2006)
Trust (v.5)	Interpersonal trust in survey 1981-2004	WVS (2006)