

Regulation and Distrust

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May 2, 2008

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1 Introduction

In a cross-section of countries, government regulation is strongly negatively correlated with social capital. We document, and try to explain, this highly significant empirical correlation. The correlation works for a range of measures of social capital, from trust in others to trust in corporations and political institutions, as well as for a range of measures of regulation, from product markets, to labor markets, to judicial procedures.

We present a simple model explaining this correlation. The model turns on the idea that education makes people both more productive and more civic. Compared to educated people, the uneducated ones are both less productive and impose a negative externality on others when they produce (e.g., pollute). The community (whether through voting or through some other political mechanism) restricts production through regulation when the negative externalities are large. But when production is restricted through regulation, investment in education does not pay off. In this model, when people expect to live in a civic community – when they trust others, – they expect low levels of regulation, and so invest in education. Their beliefs are justified, and education leads to civility, low regulation, and high output. When people expect to live in an uncivic community, they do not invest in education and remain uncivil and unproductive. Their beliefs again are justified, as lack of education lead to incivility, high regulation, and low production. The model has two Pareto ranked equilibria.

The model explains the correlation between regulation and distrust, but it also has a number of additional implications, which we bring to the data. To begin, the model predicts, most immediately, that distrust influences not just regulation itself, but beliefs about regulation. Using the World Values Survey, we show both in a cross-section of countries, and in a sample of individuals from around the world, that distrust has a profound influence on beliefs about government ownership and about the effectiveness of economic management in a democracy. Controlling for various personal characteristics, individuals who do not trust others believe in a big role for the state.

The most fundamental implication of the model, however, is that culture (as measured by distrust) and institutions (as measured by regulation) co-evolve. Culture shapes institutions, and institutions shape culture. The causality runs in both directions. This means, in particular, that if we find some exogenous forces that shape culture, then these forces, through their influence on trust, in turn shape regulation. Conversely, if we find some exogenous forces that shape regulation, then these forces in turn shape beliefs and trust. Following Putnam (1983) and La Porta et al (1997), we consider hierarchical religion as an exogenous influence on trust. Following the work on legal origins (La Porta et al. 1998, 2008), we consider legal traditions,

particularly in colonies, as an exogenous influence on regulation. We use these variables to investigate the two directions of causality. We find that causality runs both ways.

Although our paper combines ideas about regulation and distrust in an apparently novel way, it follows a large literature on related topics. Following Banfield (1958), Gambetta (1988) and Coleman (1990), Putnam (1993) reinvigorated research on social capital by showing tremendous dispersion of levels of trust and social capital across Italian regions as well as the ability of social capital measures to predict government performance. Knack and Keefer (1997) and La Porta et al. (1997) are early empirical studies showing that social capital predicts good economic outcomes in a cross-section of countries. Recent studies in a related vein are Guiso, Sapienza, and Zingales (2004, 2006) and Tabellini (2005). Relatedly, Alesina and Glaeser (2004) and Alesina and Angeletos (2005) describe a large variation in beliefs about redistribution across European countries, and show how these beliefs influence, and are influenced by, actual policies. Two recent innovations have further advanced research in this area. First, Tabellini (2007a) and Guiso, Sapienza, and Zingales (2007a) present new evidence of deep historical roots of modern variation of trust among regions of Europe and Italy, consistent with Putnam's view that trust is a measure of highly persistent culture. Second, and more closely related to the current paper, Bisin and Verdier (2001), Tabellini (2007b), and Guiso, Sapienza and Zingales (2007b) focus on explicit cultural transmission of beliefs within families, which is in part shaped by economic incentives. Algan and Cahuc (2007) offer empirical evidence consistent with these models using data on second-generation Americans. These papers, however, do not note the connection between distrust and regulation, nor the role of regulation in undermining social capital accumulation.

A second literature intimately related to the current research focuses on cross-country determinants of regulation, and in particular on the role of legal traditions in shaping regulatory patterns. These papers show that countries whose laws originate in the English legal tradition (common law) have less aggressive government regulation than do countries whose laws originate in the French legal tradition (French civil law) in such diverse areas as entry regulation (Djankov et al. 2002), labor market regulation (Botero et al 2004), regulation of the legal process (Djankov et al. 2003), and military conscription (Mulligan and Shleifer 2005). This research is summarized and integrated by La Porta et al. (2008). We use the data and the findings from this research in our analysis.

A third literature intimately related to our work deals with centrality of education in propagation of social values (Becker, 1963, Coleman 1990). A small literature in economics (e.g., Glaeser et al. 2007), and a much larger and earlier literature in political science (e.g., Lipset 1959, 1960, Almond and Verba 1989, 1st ed. 1963) stresses the contribution of schooling to

civic behavior and not just productivity in the marketplace. In our model, education is the relevant investment decision, and it is the persistence of education that generates the persistence of beliefs and institutions.

Finally, a couple of recent papers have emphasized, more broadly than we do, the idea that a lack of trust in institutions is an important reason why voters might dislike capitalism (Di Tella and McCulloch 2007, Landier et al. 2007). We return to these studies later in the paper.

2 Basic facts

This section correlates distrust and government regulation across countries. The exact definitions of variables are summarized in the Appendix.

2.1 Data on distrust

We use data on distrust from the *World Values Survey* (WVS). The WVS database is an international social survey consisting of three main waves 1981-84, 1990-93 and 1999-2003, denoted henceforth 1980, 1990 and 2000.¹ This survey provides a range of indicators of distrust in others, in markets, and in institutions for a large sample of countries around the world.

The basic measure of distrust comes from 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?*”. We construct a *distrust* indicator equal to 0 if the respondent answers “Most people can be trusted” and 1 if she answers “Can’t be too careful”. We take the average country-level of distrust over the three waves 1980, 1990 and 2000.

We also use indicators of distrust associated with the lack of civic spirit. As stressed by Glaeser et al. (2000), the question about trust may capture trustworthiness of others rather than trust in others. We use the following question from the World Value Survey: “*Do you think that it is unjustifiable to cheat on government benefits?*”. The answer ranges from 1 for “*never justifiable*” to 10 for “*always justifiable*”. We define the proportion of *uncivic* households as those who do not think that it is never justifiable to cheat on public benefits.

Distrust can be measured not only with respect to other people but also as confidence in business, in unions, and in the legal and political system. We consider the following set of questions provided by the WVS : “*Do you have a lot of confidence, quite a lot of confidence, not very much confidence, no confidence at all in the following : Major Companies? Unions ? Justice ? Parliamentary democracy?*”. The answers range from 1 for a lot of confidence, to 2

¹The World Value Survey also provides a wave in 1995 but for a smaller set of countries and questions.

for quite a lot of confidence, to 3 for a little confidence, to 4 for no confidence. We create a 1-0 dummy which is equal to 1 if the respondent chooses the answer no confidence, and zero otherwise. We thus have four dummy variables *distrust in companies*, *distrust in organized labor*, *distrust in legal system*, and *distrust in political system*.

2.2 Data on regulation

To measure regulation, we start with government regulation of the product market. We use Djankov et al. (2002) data on the number of steps that an entrepreneur must complete to open a business legally. The measure is available for the year 1999 and covers almost all countries present in the WVS database. We also use an index of the frequency of price controls by the state. Gwartney et al. (1998) construct an index of the extent to which companies can set prices freely, from 0 for no freedom at all to 10 for perfect freedom. La Porta et al. (2002) use the average of this index for the two available years 1989 and 1994 as a measure of price controls.

Next, we look at the regulation of the labor market. Botero et al. (2004) construct an index of the rigidity of employment regulation which aggregates three areas: i) Difficulty of hiring, ii) Rigidity of hours, and iii) Difficulty of firing. The sub-index of hiring difficulty measures the availability of temporary and alternative contracts. The sub-index of hours rigidity measures the legal maximum number of hours, and restrictions over evening hours, and minimum vacations. The sub-index of firing rigidity measures the legal procedures, such as advanced notice, required to terminate a job. We also use a measure of the extent of state regulation of the minimum wage, which takes into account the existence of a statutory legal minimum wage and the potential exceptions based on age, skills, industries, or regions. This index is from Aghion et al. (2008) and covers 21 OECD countries. We also look at formalism of legal procedures from Djankov et al. (2003).

Using these data, we can estimate the empirical relationship between distrust and regulation for a maximum of 56 countries. The list includes: Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Croatia, Czech Republic, Denmark, Dominican Republic, Egypt, Finland, France, Germany, Greece, Hungary, India, Indonesia, Ireland, Italy, Jordan, Japan, Korea, Latvia, Lithuania, Morocco, Mexico, Netherlands, Nigeria, Norway, New Zealand, Pakistan, Peru, Philippines, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, South Africa, Sweden, Switzerland, Taiwan, Turkey, United Kingdom, Ukraine, Uruguay, Vietnam, United States and Venezuela. The sample of countries changes slightly depending on the indicators for distrust and the type of regulation we are looking at.

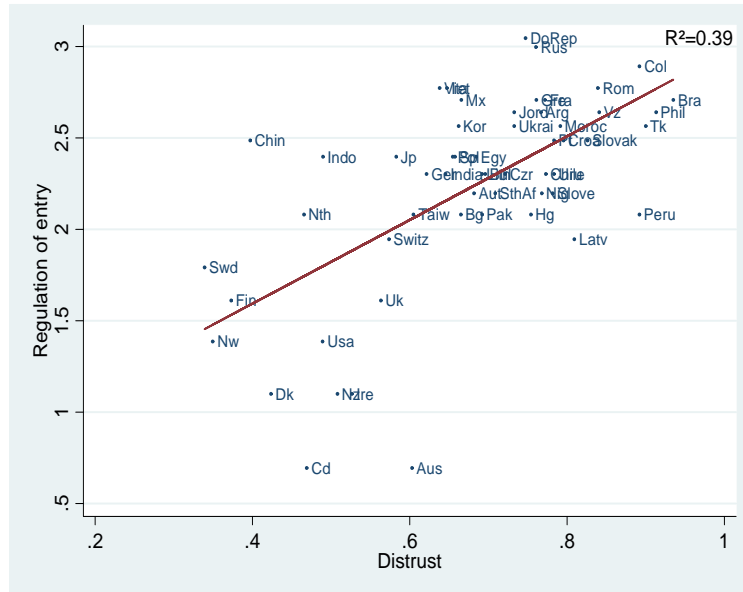


Figure 1: Distrust and Regulation of entry. Regulation is measured by the (ln)-number of procedures to open a firm. Sources: World Value Survey and Djankov et al. (2002).

2.3 The correlation between distrust and regulation

We present nine figures illustrating the relationship between distrust and regulation. Figure 1 illustrates the strong positive cross-country correlation between the regulation of entry as measured by the (ln)-number of steps to open a business, and the country level of distrust. High-trusting countries such as Nordic and Anglo-Saxon countries impose very few controls for opening a business while low-trusting countries, typically Mediterranean, Latin-American, and African countries, impose heavy regulations. More than one-third of the cross-country variation in the regulation of entry is explained by distrust.

Figure 2 presents the evidence on the correlation between state control of price-setting and country-level distrust. A strong negative correlation shows up between the freedom that firms enjoy in setting their prices and distrust. High-trusting countries tend to let firms choose their prices, while low-trusting countries impose many more state controls of prices. The R^2 is also around 0.34.

Figure 3 and 4 present the relationship between regulation of the labor market and distrust. Figure 3 reports the correlation between the rigidity of employment contracts and distrust. A strong positive correlation shows up between this indicator and distrust. Nordic countries such as Finland, Norway, and Sweden are outliers in this figure. Yet, when we focus on state regulation of the minimum wage, these Nordic countries fit much more with the other high-trusting countries

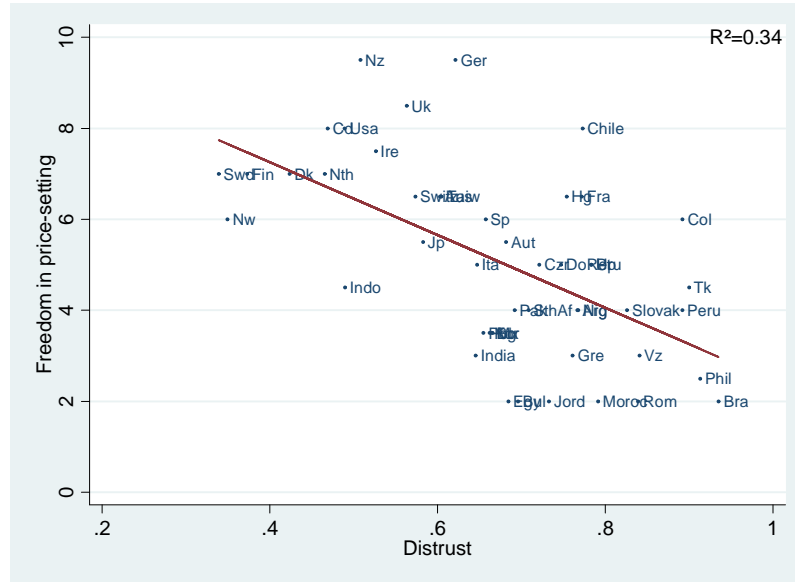


Figure 2: Distrust and Freedom of firms in setting prices on the good-market. The indicator ranges from 1 for no freedom at all to 10 for perfect freedom. Source: WVS database and Laporta et al. (2002).

such as Denmark or Anglo-Saxon countries. Figure 4 shows that the correlation between state regulation of the minimum wage and the country-level of distrust is strongly positive; 65 percent of the variance in distrust is explained by state regulation of wages.

Figure 5 shows that the same relationship holds between distrust and court formalism. High-trusting countries tend to have less judicial formalism.

Figures 6 through 9 show the correlation between entry regulation and distrust of big companies, of unions, of parliament, and of the legal system, respectively. The figures reveal a strong positive correlation between the (ln)-number of procedures to open a business and distrust. The most significant relation shows up for distrust of companies, of the parliament and of the legal system, the R^2 reaching .22, .23 and .33 percent, respectively.

Tables 1 and 2 confirm these correlations in regressions controlling for per capita income and education.

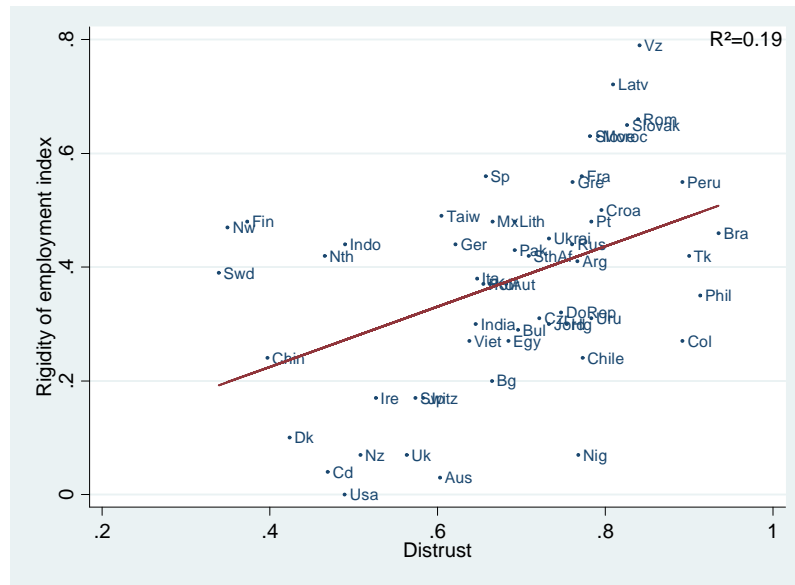


Figure 3: Distrust and Rigidity of employment index. Sources: World Value Survey and Botero et al. (2004).

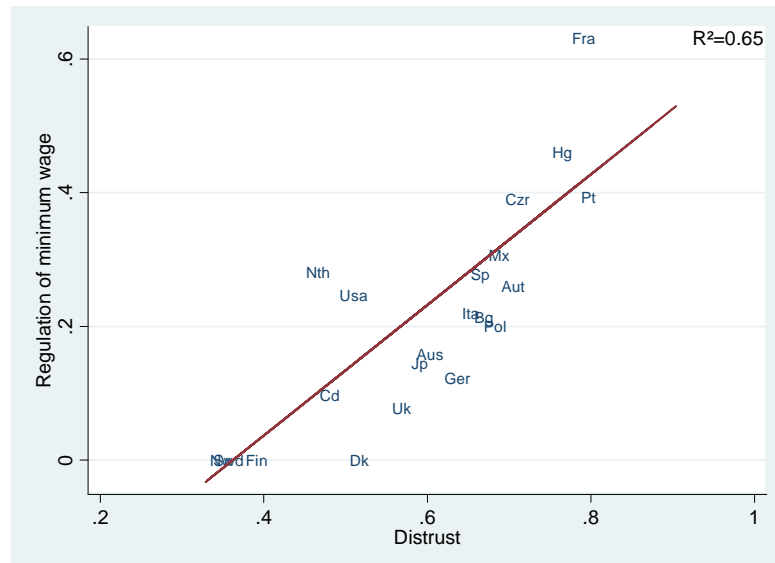


Figure 4: Distrust and State regulation of minimum wages. Source: WVS database and Aghion, Algan, Cahuc (2008).

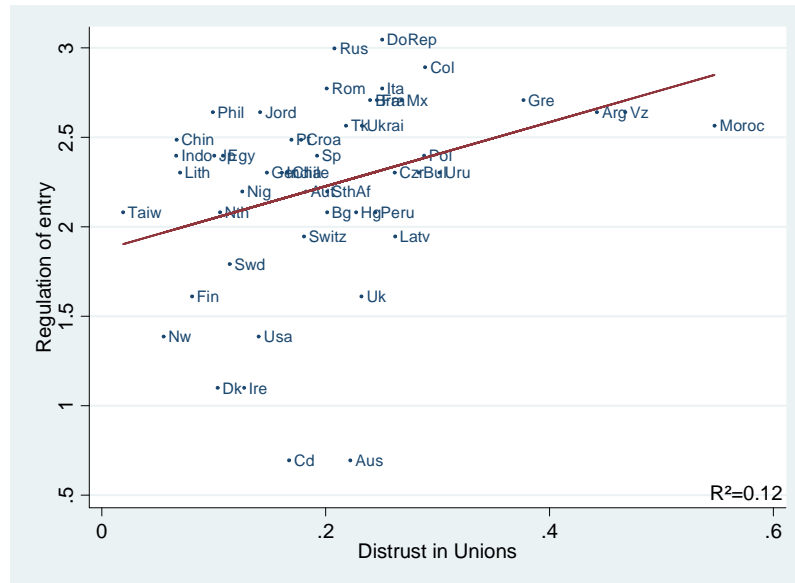


Figure 7: Distrust in unions and regulation of entry. Regulation is measured by the (ln)-number of procedures to open a firm. Sources: World Value Survey and Djankov et al. (2002).

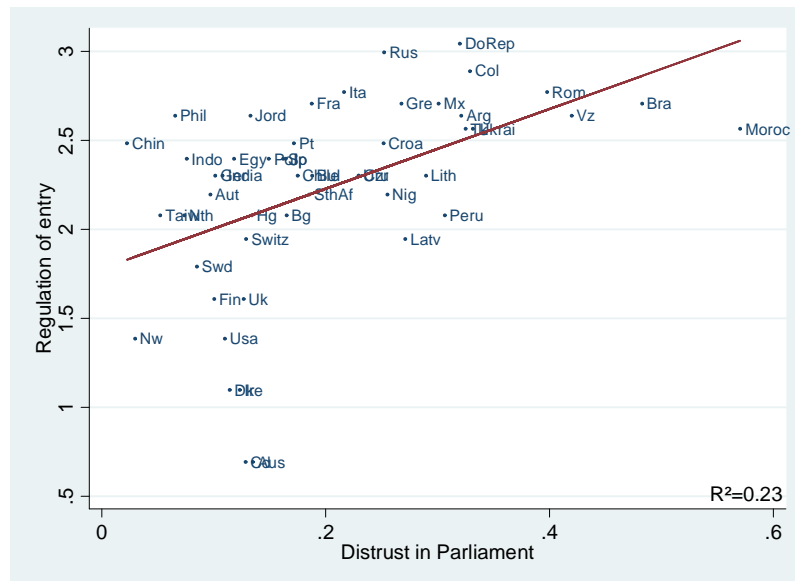


Figure 8: Distrust in Parliament and regulation of entry. Regulation is measured by the (ln)-number of procedures to open a firm. Sources: World Value Survey and Djankov et al. (2002).

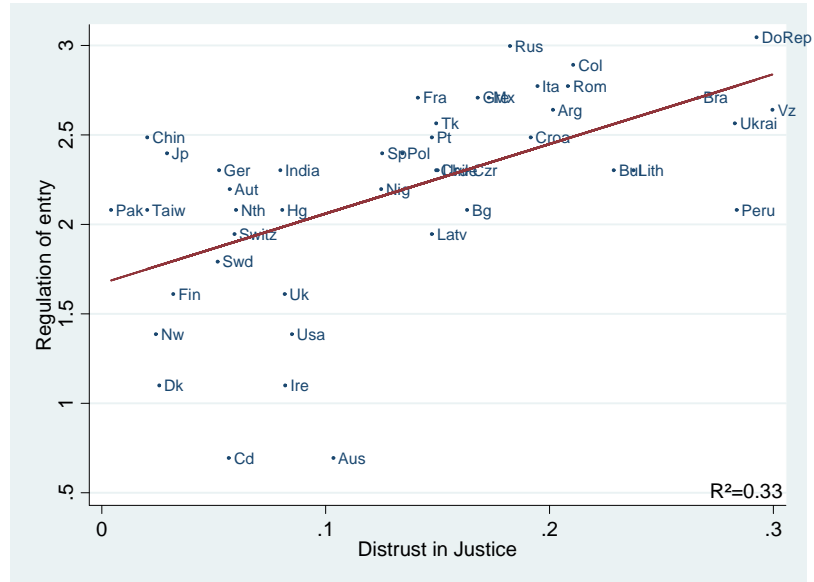


Figure 9: Distrust in justice and regulation of entry. Regulation is measured by the (ln)-number of procedures to open a firm. Sources: World Value Survey and Djankov et al. (2002).

3 The model

We present a simple model that highlights the interplay between distrust and regulation, with causality running in both directions. When individuals distrust others, they fear a negative externality from the others' actions. They thus call for heavier public regulation, forbidding a broader range of exchanges or productive activities. Conversely, strict regulation of activities makes it unattractive for an individual to invest in education, with all the benefits it entails for both private productivity and social capital, since the occasions for productive activities are limited.

We consider an economy in which public authorities choose whether to forbid or to authorize productive activities that can generate negative externalities. Each individual can be either educated or not. Educated individuals are civil and productive. Uneducated individuals are uncivil and unproductive. Production by trustworthy individuals does not entail negative externalities, while production by uncivil individuals generates negative externalities. We can think of these externalities as pollution or deception that affect the whole community.

In this framework, there are two stable equilibria. In the first, there is zero investment in education and public authorities forbid productive activities because people are uncivic. In the second equilibrium, individuals invest in education and become civic, and as a consequence public authorities allow productive activities. The second equilibrium Pareto dominates the

first. We present a very stark model illustrating the multiplicity – smoother models are also possible.

There is a continuum of identical risk neutral individuals of mass one. There are two goods: labor and a numeraire good produced with labor. The timing of events is as follows:

1. Individuals can either invest a fixed amount $i > 0$ to be educated or not invest at all. Educated individuals are able to produce one unit of the numeraire good and do not generate a negative externality when they produce. Uneducated people produce y , $0 < y < 1$, and generate a negative externality which costs ℓ per capita. Education is a private investment.

2. People vote to authorize or to forbid production (alternatively, public authorities maximize social welfare). Public authorities can forbid production activity at zero cost. It is impossible to forbid production by the uneducated and to authorize production by the educated.

3. People produce if production is authorized.

We make the following two assumptions: (1) investment in education has positive private returns if the productive activity is authorized:

$$1 - i > y$$

and (2) the social returns of production are negative if people are not educated

$$y < \ell$$

Denote by α the share of people who become educated. In the second step, production is authorized if and only if:

$$\alpha + (1 - \alpha)(y - \ell) > 0$$

or

$$\alpha > \frac{\ell - y}{1 + \ell - y} = \bar{\alpha}$$

Private returns of education are positive if and only if productive activity will be authorized. Thus, the best reply for each individual is to invest in education if $\alpha > \bar{\alpha}$ and not to invest if $\alpha < \bar{\alpha}$. This implies that there are two stable equilibria.

1. Everybody invests in education ($\alpha = 1$) and it is optimal to authorize the productive activity.

2. Nobody invest in education ($\alpha = 0$) and the productive activity is not authorized.

The second equilibrium clearly dominates the first since social welfare is zero in the equilibrium without education and $1 - i > 0$ in the equilibrium with education.

In this simple model, culture and institutions are jointly determined. Trust in others invites investment in education, which in turn creates civic communities that do not wish to heavily regulate and restrict production. Absence of these restrictions justifies private investment in education. Conversely, lack of trust in others causes people to expect heavy regulation of economic activities, and discourages investment in education, keeping communities uncivil and unproductive. The model thus explains the strong positive correlation between regulation and distrust documented in the previous section. But the model goes further than that. Its central idea is that distrust in others causes individuals to wish to rely on the state to regulate production. Below, we test this prediction. The model also emphasizes that causation between regulation and distrust runs in both directions. We examine this prediction of the model as well. Finally, the model stresses the social aspect of education, a third element we consider empirically.

4 The Effect of Distrust on Regulation

We examine empirically the impact of distrust on regulation. We first show that individuals are more favorable to state regulation when they distrust each other. We then provide some evidence of a causal link from distrust to both regulation and support for regulation by instrumenting distrust with hierarchical religion.

4.1 Distrust and Political support of regulation

4.1.1 Data

This section documents the relationship between distrust and political support for regulation. We show that countries where people are more distrustful also display higher support for regulation. We measure political support for regulation using two sets of questions in the WVS database. The first question refers to direct state control of firms: “*How would you place your views on this scale? 1 means you agree completely with the statement on the left: State gives freedom to firms; 10 means you agree completely with the statement on the right: State control firms.*” This question is provided in the wave 2000 of the WVS database for 25 countries: Austria, Belgium, Bulgaria, Check Republic, Croatia, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Turkey, United Kingdom, Ukraine.

We also use a question about the efficiency of the economy under democracy: “*Here are*

some things that people sometimes say about a democratic political system. Could you please tell me if you agree strongly, agree, disagree or disagree strongly, after I read each one of them? In democracy, the economic system runs necessarily badly". We create a dummy variable equal to 1 if the respondent strongly agrees or agrees with that statement, and equal to zero otherwise. This question covers 52 countries of the initial sample of 56 countries presented in the previous section, with 4 missing observations for Colombia, Korea, New Zealand and Pakistan.

4.1.2 OLS estimates

Table 3 presents the cross-country correlation between distrust and political support for state regulation. The first column shows that distrust is positively correlated with political support for direct control of firms by the state. The effect is statistically significant at the 1 percent level, and the R^2 is 40 percent. The second column shows that the relationship remains statistically significant when we control for income per capita and the average years of education. Remarkably, national distrust is the only statistically significant variable.

Table 3 - Column 3 shows that the same statistically significant relationship holds between distrust and the average number of households who consider that the economy necessarily runs badly in a democracy. The effect is economically sizeable: a 1 percent increase in national distrust in others yields an increase by 0.53 percent in the share of skeptical about the efficiency of the economy in a democracy. The fourth column shows that the same statistically significant relationship holds when income per capita and average education are controlled for.

Table 4 reports the corresponding regression at the micro level on the WVS database. The micro estimates allow us to control for country fixed effects and an extensive set of individual characteristics such as age, gender, education, income, political affiliation and religious affiliation, in addition to the individual level of distrust.

Table 4 - Column 1 reports the ordered probit estimate of the relationship between distrust and the answer to the question "*How would you place your views on this scale? 1 means you agree completely with the statement on the left: State gives freedom to firms; 10 means you agree completely with the statement on the right: State control firms.*" The probability of backing state control of firms is positively related to distrust. The effect is statistically significant at the one percent level. The effect is also economically sizeable, since it is ten times as high as the coefficient on the years of education.

Table 4 - Column 2 shows the marginal probit estimate of the relationship between individual distrust and the answer to the question: "*In democracy, the economic system runs badly*". The dependent variable is a dummy equal to 1 if the respondent strongly agrees with the statement,

and 0 otherwise. A higher level of distrust is associated with a higher probability of considering democracy an ill-suited system for the efficiency of the economy.

4.2 IV estimates

We explore further the relationship between distrust and regulation and its support by using Instrumental Variables. To find an instrument for distrust, we rely on Putnam (1993) and La Porta et al. (1997) evidence that distrust is influenced by hierarchical religions. Putnam (1993) argues that the Catholic Church has crowded out the formation of trust in Italy by imposing a hierarchical structure on the society. La Porta et al. (1997) find that hierarchical religion is a strong predictor of the country level of trust. They define the indicator of hierarchy as the percentage of the population belonging to a hierarchical religion such as Catholic, Eastern Orthodox, or Muslim. The data on hierarchical religions are taken from La Porta et al. (1997) and Barro, and defined for the year 2000.

Table 5 presents the results. Panel A presents the 1st stage regressions of distrust on hierarchical religion, controlling for education and per capita income. The columns differ only in the number of countries in each regression, which matches the second stage regression. In these regressions, hierarchical religion is an extremely powerful predictor of distrust. The relationship between distrust and hierarchical religion is statistically significant at the 1 percent level. The economic effect is also sizeable: an increase of 1 percentage point in the share of individuals who belong to a hierarchical religion is associated with a rise by one quarter percentage point in the country-share of individuals who trust each other. In contrast, income per capita and education are poor predictor of distrust when hierarchical religion is controlled for.

Panel B shows the second stage regressions, in which predicted distrust is used as an independent variable determining three measures of regulation, and measures of support for regulation. The measures of regulation refer to the three indicators presented in section 2. Columns 1 to 3 shows that predicted distrust has a statistically significant effect at the 1 percent level on the three measures of regulation. Column 4 reports a similar statistically significant effect of predicted distrust on support for regulation, measured by the country-share of individuals who think that the economy runs badly under democracy. The magnitude of the effect is sizeable. A 1 percentage point increase in predicted distrust is associated with a rise by 0.5 percentage point in the country-share of individuals who consider democracy as ill-suited for the efficiency of the economy. The IV regression is consistent with distrust causing regulation.

5 The effect of regulation on distrust

In this section, we follow the research on legal origins (La Porta et al. 2008) and use legal origins as instruments for regulation, especially in colonies. This is not an entirely correct procedure, since the exclusion restriction might be violated. We use the classification of legal origins given by La Porta et al. (2008). They distinguish between the Anglo-Saxon legal origin (common law), French legal origin (civil law), German legal origin, and Scandinavian legal origin. We continue with the sample of countries presented in section 2. The sample covers 56 countries for the distrust indicator for which we have the maximum number of observations. According to La Porta et al. (2008), the group of countries with French legal origin is made up of the following 27 countries: Argentina, Belgium, Brazil, Chile, Colombia, Dominican Republic, Egypt, France, Greece, Indonesia, Italy, Jordan, Lithuania, Morocco, Mexico, Netherlands, Peru, Philippines, Portugal, Romania, Russia, Spain, Turkey, Ukraine, Uruguay, Venezuela, Vietnam. A group of 10 countries have common law origins: Australia, Canada, India, Ireland, Nigeria, New Zealand, Pakistan, South Africa, United Kingdom, United States. A cluster of 15 countries have German legal origin: Austria, Bulgaria, China, Croatia, Czech Republic, Germany, Hungary, Japan, Korea, Latvia Poland, Slovakia, Slovenia, Switzerland, Taiwan. 4 countries have Scandinavian legal origins: Denmark, Finland, Norway, Sweden.

Table 6 presents the IV regressions of distrust on regulation, using legal origins as instruments for regulation. The first stage shows, consistent with the work summarized in La Porta et al. (2008), that legal origins are strong predictors of regulation. French legal origin countries regulate more than the common law countries in the areas of entry regulation, labor market regulation, and regulation of legal procedure. German legal origin countries regulate more as well, although the difference with the common law countries is not as large. Scandinavian legal origin countries are not as heavy regulators, except in labor markets.

Table 6 - Panel B shows the effects of predicted regulation on distrust. Predicted regulation of the good markets and formalism of legal procedures have a statistically significant effect at the 1 percent level on distrust. Predicted regulation of the labor market has a statistically significant effect at the 5 percent level. These IV results are consistent with the causality running as well from regulation to distrust, consistent with our theoretical model.

A potential caveat of the previous regressions is that a legal system could have been shaped by beliefs in cooperation in the past, which have a persistent effect. Glaeser and Shleifer (2002) argue that distrust and disorder were central to the divergence between common and civil law at their origins in the 12th century. Likewise, *Code Civil* was perhaps implemented after the French Revolution as an answer to the mounting social disorder in the country.

To address this concern, we restrict our attention to former colonies, which have inherited their legal systems from their colonizers. We have evidence on the extent of distrust for a sample of 23 former colonies in the WVS database. Former colonies with French legal origin are: Argentina, Brazil, Chile, Colombia, Dominican Republic, Egypt, Indonesia, Jordan, Morocco, Mexico, Peru, Philippines, Uruguay, Venezuela, and Vietnam. Former colonies with common law legal origin are: Australia, Canada, India, New Zealand, Nigeria, Pakistan, South Africa and the United States. We have only one former colony with German legal origin (Taiwan).

Table 7 shows that the results of the previous table hold for the former colonies as well. The first stage shows that the legal origins have highly persistent effect on regulation in past colonies. French legal origin former colonies still regulate more than do common law former colonies and have much more judicial formalism. Panel B shows that predicted regulation has still a statistically significant effect in the sample of former colonies.

6 Distrust, legal origin and civic education

As a final piece of evidence, we return to the central element of our model that accounts for the perpetuation of both culture and institutions, namely education. We document the relationship between civic education, distrust and regulation. In our model, stringent regulation crowds out the incentives to invest in cooperative attitudes such as feelings of responsibility and respect of others since individuals do not have to interact with others. In this case, schools or parents put more emphasis on transmitting respect for authority than on developing feeling of responsibility and unselfishness.

The indicators for civic education are taken from the three waves of the WVS database. We document this channel by using the following set of questions in the World Values Survey: *“Here is a list of qualities which children can be encouraged to learn at home. Which, if any, do you consider to be especially important: - Tolerance and respect for other people ? Unselfishness”*. The answer is equal to one if the respondent mentions that the value is especially important to transmit to the children, and zero otherwise. The 56 countries of our initial sample are covered by this question.

Table 8 - Panel A reports the marginal probit estimates, which show that trusting individuals consider it to be important to learn tolerance and respect (Col. 1) , and unselfishness (Col. 2). The relation is statistically significant at the 1 percent level. The probability that the respondent considers it important to teach respect drops by 4.2 percentage points if the respondent distrusts others. By comparison with other individual characteristics, the effect is four times as high as belonging to a low income category and ten times as high as having one more year of education.

Table 8 - Panel B reports the marginal probit estimates describing the relationship between legal origins, used as a proxy for regulation, and educational values. Living in a French legal origin country sharply decreases the probability that the respondent finds it important to teach respect and tolerance, or unselfishness, to children. The effect is statistically significant at the 1 percent level and economically sizeable. Living in a French legal origin country is associated with a decrease by 14.9 percent in the probability that the respondent finds it important to teach respect. The effect of French legal origin is economically higher compared to any individual characteristics and to most country fixed effects.

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7 Appendix

Table 1: Distrust and Regulation: OLS estimates

Dependent variable	Regulation of product market (1)	Regulation of labor market (2)	Court formalism index (3)
Panel A - Distrust and regulation			
Distrust in others	1.695 ^{***} (.4283)	.5306 ^{***} (.176)	2.922 ^{***} (.790)
Ln (GDP per capita)	-.0537 (.056)	.002 (.023)	.0343 (.102)
Education	-.046 (.031)	-.001 (.012)	-.0372 (.058)
Observations	56	56	55
R ²	.44	.139	.25
Panel B - Lack of civic spirit and regulation			
Uncivic	.943 ^{**} (.448)	.365 ^{**} (.176)	1.635 ^{**} (.767)
Ln (GDP per capita)	-.085 (.061)	-.0110 (.0241)	-.0765 (.105)
Education	-.092 ^{***} (.034)	-.011 (.013)	-.076 (.059)
Observations	50	50	50
R ²	.36	.07	.14

Table 2: Distrust in Business, Institutions and Regulation: OLS estimates

Dependent variable	Regulation of product market (1)	Regulation of labor market (2)	Court formalism index (3)
Panel A - Distrust in business and regulation			
Distrust in major companies	1.881 ^{***} (.638)	.528 ^{**} (.239)	2.646 ^{***} (1.180)
Ln (GDP per capita)	-.050 (.062)	.016 (.023)	-.000 (.115)
Education	-.085 ^{**} (.035)	.020 (0.13)	-.067 (.065)
Observations	48	48	48
R ²	.40	.12	.12
Panel B - Distrust in unions and regulation			
Distrust in unions	1.309 ^{**} (.590)	.526 ^{**} (.227)	3.749 ^{***} (.940)
Ln (GDP per capita)	-.078 (.064)	-.016 (.023)	-.081 (.096)
Education	-.080 ^{**} (.037)	-.004 (.013)	-.024 (.055)
Observations	50	50	50
R ²	.35	.15	.25
Panel C - Distrust in the Legal system and Regulation			
Distrust in justice	2.964 ^{***} (.804)	.780 ^{**} (.323)	5.790 ^{***} (1.274)
Ln (GDP per capita)	-.018 (.062)	-.004 (.025)	.055 (.099)
Education	-.078 ^{**} (.034)	-.003 (.013)	-.043 (.055)
Observations	45	45	45
R ²	.41	.10	.30
Panel D - Distrust in Parliament and Regulation			
Distrust in parliament	1.356 ^{**} (.551)	.645 ^{***} (.207)	3.235 ^{***} (.920)
Ln (GDP per capita)	-.077 ^{**} (.059)	-.010 (.022)	-.042 (.099)
Education	-.063 [*] (.035)	.001 (.013)	-.008 (.058)
Observations	50	50	50
R ²	.36	.17	.20

Table 3: Distrust and political support in favor of state regulation: Macro estimates

Dependent variable	State should control firms		Economic system runs badly under democracy	
	(1)	(2)	(3)	(4)
Distrust	3.684 ^{***} (.933)	3.418 ^{**} (1.477)	.531 ^{***} (.108)	.563 ^{***} (.118)
Ln (GDP per capita)		-.163 (.154)		-.034 [*] (.015)
Education		.072 (.106)		.023 ^{**} (.008)
R ²	.403	.456	.322	.412
Observations	25	25	52	52

Table 4: Distrust and Political support in favor of regulation: Micro evidence

Dependent variable	State should control firms	Economic system runs badly under democracy
	(1)	(2)
Distrust in others	.105 ^{***} (.018)	.059 ^{***} (.004)
Controls	Yes	Yes
R ²	.162	.081
Observations	26171	54619

Controls: country fixed effects, , gender, age, education, income, religion.
Robust standard error with clustering at the country level.
***:1%, **: 5%, *: 10. Source WVS database

Table 5: Impact of distrust on regulation: IV estimates

Panel A - 1st Stage : Distrust					
	(1)	(2)	(3)	(4)	(5)
Hierarchical religion	.249 ^{***} (.043)	.249 ^{***} (.043)	.245 ^{***} (.043)	.258 ^{***} (.044)	.209 ^{***} (.065)
ln (GDP per capita)	-.026 [*] (.013)	-.026 [*] (.013)	-.023 [*] (.013)	-.026 [*] (.013)	-.044 [*] (.025)
Education	-.002 (.008)	-.002 (.008)	-.002 (.008)	-.002 (.008)	-.023 [*] (.011)
R ²	.523	.523	.523	.532	.717
Panel B - Second Stage : Regulation					
	Regulation of good market (1)	Regulation of labor market (2)	Court formalism (3)	Economy runs badly under democracy (4)	State should control firms (5)
Distrust	1.937 ^{***} (.680)	.760 ^{***} (.284)	5.524 ^{***} (1.383)	.506 ^{***} (.171)	2.524 (2.530)
ln (GDP per capita)	-.047 (.055)	.008 (.023)	.008 (.011)	-.026 (.013)	-.220 (.197)
Education	-.041 (.031)	.002 (.013)	.015 (.065)	-.002 (.008)	.033 (.136)
R ²	.464	.162	.140	.375	.446
Observations	56	56	56	52	25

Table 6: Distrust and Legal origins: IV estimates

Panel A - 1st stage : Regulation			
	Regulation of good market (1)	Regulation of labor market (2)	Court formalism (3)
Common law		Reference	
French Legal origin	.918 ^{***} (.103)	.267 ^{***} (.055)	1.281 ^{***} (.248)
German Legal origin	.766 ^{***} (.111)	.249 ^{***} (.059)	.916 ^{***} (.264)
Scandinavian Legal origin	.070 (.165)	.183 ^{**} (.009)	.214 (.387)
ln (GDP per capita)	-.084 ^{**} (.037)	-.012 (.020)	-.026 (.090)
Education	-.039 [*] (.021)	-.004 (.011)	-.035 (.052)
R ²	.737	.331	.385
Panel B - Second Stage : Distrust			
	(1)	(2)	(3)
Regulation	.178 ^{***} (.042)	.382 ^{**} (.162)	.111 ^{***} (.033)
ln (GDP per capita)	-.007 (.015)	-.020 (.016)	-.017 (.015)
Education	-.004 (.009)	-.014 (.009)	-.009 (.009)
R ²	.404	.342	.366
Observations	56	56	55

Table 7: Distrust and Legal origins in colonies: IV estimates

Panel A - 1st stage : Regulation			
	Regulation of good market (1)	Regulation of labor market (2)	Court formalism (3)
Common law		Reference	
French Legal origin	.813 ^{***} (.135)	.205 ^{***} (.064)	1.466 ^{***} (.375)
German Legal origin	.629 ^{**} (.313)	.230 ^{***} (.145)	.100 (.857)
Scandinavian Legal origin	-	-	-
ln (GDP per capita)	-.142 (.100)	.055 (.047)	.151 (.276)
Education	-.049 (.047)	-.045 (.022)	-.123 (.131)
R ²	.786	.498	.385
Panel B - Second Stage : Distrust			
Regulation	.143 ^{**} (.058)	.248 [*] (.162)	.084 ^{***} (.027)
ln (GDP per capita)	.037 (.033)	-.009 (.042)	.008 (.031)
Education	-.014 (.017)	-.001 (.024)	-.012 (.015)
R ²	.410	.295	.530
Observations	23	23	23

Table 8: Civic Education, Distrust and Regulation: Micro evidence - Marginal probit effect

	Respect for others (1)	Unselfishness (2)
Panel A : Distrust and Education		
Distrust	-.042 ^{***} (.008)	-.028 ^{***} (.006)
R ²	.028	.087
Observations	116481	116481
Panel B : Legal origin and Education		
Common law	Reference	
French legal origin	-.149 ^{***} (.006)	-.153 ^{***} (.007)
German legal origin	-.135 ^{***} (.002)	-.185 ^{***} (.001)
Scandinavian legal origin	.081 ^{***} (.002)	-.026 ^{***} (.002)
R ²	.028	.084
Observations	121450	121450
Controls: country fixed effects, gender, age, education, religion, income. Robust standard error with clustering at the country level. ***:1%, **: 5%, *: 10		

Table 9: Variable definitions

Variables	Description	N Countries
Individual questions on distrust		
Distrust	Share of people who answer “need to very careful in dealing with people” 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?”. We measure the average country level of distrust over three waves of the WVS database in 1980, 1990 and 2000	56
Uncivic	Share of people who do not answer “never justifiable” to the question: “Do you think it is unjustifiable or not to cheat on government benefits”. The answers ranges from 1 for never justifiable to 10 for always justifiable. We calculate the country-share of respondents who answers never justifiable averaged over the three waves of the WVS database in 1980, 1990 and 2000	50
Distrust in companies	Share of people who answer “no confidence” to the question: “Do you have confidence in major companies”. The answers range from 1 for a lot of confidence to 4 for no confidence. We calculate the average country-share of respondents who answers no confidence over the three waves of the WVS database in 1980, 1990 and 2000	48
Distrust in unions	Share of people who answer “no confidence” to the question: “Do you have a lot of confidence, not very much confidence, no confidence in labor unions”. The answers range from 1 for a lot of confidence to 4 for no confidence. We calculate the average country share of respondents who answers no confidence over the three waves of the WVS database in 1980, 1990 and 2000	50
Distrust in legal system	Share of people who answer “no confidence” to the question: “Do you have confidence in the legal system”. The answers range from 1 for a lot of confidence to 4 for no confidence. We calculate the average country share of respondents who answers no confidence over the three waves of the WVS database in 1980, 1990 and 2000	45
Distrust in parliament	Share of people who answer “no confidence” to the question: “Do you have confidence in the parliament”. The answers range from 1 for a lot of confidence to 4 for no confidence. We calculate the average country share of respondents who answers no confidence over the three waves of the WVS database in 1980, 1990 and 2000	50

Table 10: Variable definition

Variables	Description	N Countries
	Individual questions on regulation and education	
State should control firms	Country average score to the question: “Do you think that the state should give complete freedom to the firm or that the state should control firm”. The answers range from 1 for complete freedom to 10 for complete control. The score is averaged over the three waves of the WVS database in 2000	25
Economic system runs badly under a democracy	Share of respondents who answer yes to the question: “Do you think that the economic system runs necessarily badly under a democracy”. The indicator equal one if the respondent answers yes and 0 if the answer is no. The indicator is averaged over the three waves of the WVS database in 1980, 1990 and 2000	52
Education: tolerance and respect for other people	Share of respondents who answer “especially important” to the question “Here is a list of qualities which children can be encouraged to learn at home. Which if any do you consider to be especially important: Tolerance and Respect for other people”. The indicator equal 1 if the answer is “especially important”, and 0 if the answer is “not important”. The indicator is averaged over the three waves of the WVS database in 1980, 1990 and 2000	56
Education: Unselfishness	Share of respondents who answer “especially important” to the question: “Here is a list of qualities which children can be encouraged to learn at home. Which if any do you consider to be especially important:Unselfishness”. The indicator equal 1 if the answer is “especially important”, and 0 if the answer is “not important”. The indicator is averaged over the three waves of the WVS database in 1980, 1990 and 2000	56

Table 11: Variable definition

Variables	Description	N Countries
Other variables		
Log of GNP per capita	Natural logarithm of GNP per capita in 1997, Atlas method, expressed in current US dollars. Source: World Bank, World Development Indicators (2001).	56
Legal origin	Identifies the legal origin of the company law or commercial code of each country (English, French, Socialist, German or Scandinavian). Source: La Porta et al. (2008).	56
Average years of schooling	Years of schooling of the total population aged over 25, average of 1995 and 2000. Source: Barro and Lee (2000) < http://www.cid.harvard.edu/ciddata/ciddata.htm >.	56
Ethnolinguistic fractionalization	The index measures the probability that two randomly selected people from a given country will not belong to the same ethnolinguistic group. The index is based on the number and size of population groups as distinguished by their ethnic and linguistic status. Source: Easterly and Levine, (1997).	56
Hierarchical religions	The index measures the share of people belonging to hierarchical religions: Catholic, Eastern Orthodox and Muslim religions Source: La Porta et al. (1997) and Barro's webpage.	35
Regulation of good market	The index measures the (ln) number of steps in order to open a business in 1999. Source: Djankov et al. (2002).	56
Regulation of labor market	The index measures the rigidity of employment contracts in 1999, based on i) difficulty of hiring, ii) rigidity of hours, iii) difficulty of firing. Source: Botero et al. (2004).	56
Court formalism index	The index measures substantive and procedural statutory intervention in a case for evicting a tenant that has not paid rent or to collect a bounced check. Source: Djankov et al. (2003).	55