

# Why doesn't Capitalism flow to Poor Countries?

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## Abstract

We find anecdotal evidence suggesting that governments in poor countries have a more left wing rhetoric than those in OECD countries. Thus, it appears that capitalist rhetoric doesn't flow to poor countries. A possible explanation is that corruption, which is more widespread in poor countries, reduces more the electoral appeal of capitalism than that of socialism. The empirical pattern of beliefs within countries is consistent with this explanation: people who perceive corruption to be high in their country are also more likely to lean left ideologically (and to declare support for a more intrusive government in economic matters). Finally, we present a model explaining the corruption-left connection. It exploits the fact that an act of corruption is more revealing about the fairness type of a rich capitalist than of a poor bureaucrat. After observing corruption, voters who care about fairness react by increasing taxes and moving left. There is a negative ideological externality since the existence of corrupt entrepreneurs hurts good entrepreneurs by reducing the electoral appeal of capitalism.

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## Introduction

Casual examination of right wing political rhetoric reveals large differences across countries. Right wing parties in poor countries extol the virtues of capitalism less often than their counterparts in rich countries. Instead, they appear tolerant of government intervention to regulate markets and of subsidies to contain income disparities. An intriguing possibility is that few voters in poor countries want to have a US-style capitalist system. Since economists believe that such a system is the most conducive to growth, a puzzle is, why isn't capitalism, as a way to get a country out of poverty, a more attractive idea in poor countries?

One potential explanation for these patterns in the data is cultural differences across poor and rich countries. For example, it has been argued that capitalism spread in the countries that are rich today because the prevailing religious culture approved of success and the accumulation of individual wealth, whereas in today's poor countries other cultures (such as Catholicism) stood in the way of capitalism.<sup>1</sup> An alternative explanation, economic in nature, is that voters in poor countries are choosing left wing governments to redistribute the little income there is. More inequality, in this view, moves average income up relative to the median, and may introduce a desire for redistribution. A number of authors, however, have emphasized that, at least amongst advanced industrial nations more unequal countries seem to distribute less, not more.<sup>2</sup> And since countries can move to the center, and redistribute within a market economy, it does not explain why many countries loose faith in the private sector altogether.

A more promising hypothesis is suggested by taking at face value what political parties say. Simple inspection of the traditional platforms of established parties, such as the PT in Brazil and the PRI in Mexico, reveals that corruption of the capitalist class is often invoked when justifying a more paternalistic role of government. Thus, a striking difference in the rhetoric of politicians that support redistribution across rich and poor countries is how often those in the latter group make reference to corruption. Thus, in the main part of the paper we explore empirical evidence bearing on the hypothesis that support for left wing parties originates in perceptions of corruption. We discuss

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<sup>1</sup> In some extreme cases, wealth was indicative of a person's moral standing (and likely after-life performance). A classic reference for the role of cultural affinities in the spread of capitalism is Weber (1958). For discussions and evidence, see Iannaccone (1998), Grier (1997), La Porta *et al* (1997).

three types of evidence. The first is simply a reinterpretation of the work of Djankov *et al* (2002) on the regulation of entry. They find that countries with more regulation on the entry of firms, in terms of delays and money spent in the process, also have more corruption. This, we argue, is also consistent with the idea that corruption invites regulation (and other left wing policies). The second type of evidence concerns corruption levels aggregated at the country level. We show that there is a positive correlation within countries between the total amount of corruption today and how left the government becomes in later years. Finally, analysis of subjective data within countries reveals that individuals who believe that there is more corruption are also more likely to be in favor of more government intervention in the economy. Interestingly, there is no evidence that corruption is correlated with non-economic attributes of ideology.

In the final part of the paper we present a simple model that can help explain why people who see more corruption in government are more left wing. It is based on the idea that corruption reduces the “moral legitimacy” of business because voters are concerned with fairness. When they observe corruption, voters react by moving left, even if this is costly to them, much as there are rejections of positive offers in the ultimatum game.<sup>3</sup> There is a negative externality in the sense that the existence of corrupt entrepreneurs hurts good entrepreneurs by reducing the general appeal of capitalism.

Our paper builds on the literature studying the role of the social contract and how economic organization is built on beliefs (e.g., de Tocqueville (1955), Lipset and Rokkan (1967), Lipset (1979), Rokeach (1973), Feldman (1988), Inglehart (1990), Denzau and North (1994), Putterman (1996), *inter alia*). Two important papers are Piketty (1995) and Benabou (2000). The former shows that an initial distribution of beliefs concerning the importance of effort in determining performance can lead to two different types of equilibria, one (the other) with low (high) taxes and a belief, which holds in reality, that individual effort is (is not) important in determining income.<sup>4</sup> Benabou (2000), on the other hand, shows that for a class of interventions that increase output, such as public

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<sup>2</sup> See Peltzman (1980). In section I we show that inequality is *positively* correlated with the election of right wing parties. See also work on inequality and growth (e.g., Alesina and Rodrik (1994), Persson and Tabellini (1994), Perotti (1996)).

<sup>3</sup> See, in particular, the evidence in Hoffman *et al* (1994) and Ruffle (1998) whereby performance on a skill testing contest is positively related to earnings in ultimatum and dictator games.

<sup>4</sup> A recent paper by Benabou and Tirole (2002) shows how multiple equilibria can arise out of a distribution of beliefs when individuals have self-control problems. One advantage over Piketty’s approach is that beliefs have more “texture” in the sense that some individuals will believe that mainly luck determines performance and will still want to persuade themselves that effort is important. Hochschild (1981) discusses this and other aspects of American beliefs on

education when capital markets are imperfect, multiple steady states can arise. Finally, Alesina and Angeletos (2002) show how fairness can influence the choice of taxes: if a society believes that luck or corruption (rather than effort) determine wealth, it will choose high (rather than low) taxes, thus distorting allocations and making these beliefs self-sustaining. Putterman, Roemer and Sylvestre (1998) and Alesina, Glaeser and Sacerdote (2002) review the contributions to this growing literature. In our model, different beliefs on the importance of corruption determine how much government intervention voters will support. Since such interventions increase corruption levels, it can be shown that this class of models also has the potential for multiple equilibria.

We also draw on the corruption literature.<sup>5</sup> Some authors have emphasized how corruption has undermined popular support for economic reforms.<sup>6</sup> Our work can be seen as formalizing these ideas in the context of general economic ideology (and not to views solely about reforms), exploiting the distinction between two different forms of corruption: extortion and capture. A number of economists have shown how corruption may reduce growth (see Rose-Ackerman (1978), Shleifer and Vishny (1993); for empirical evidence see Mauro (1995) and Knack and Keefer (1995)). An early paper by Andvig and Moene (1990) describes how multiple equilibria in corruption can arise. Work in this literature has also studied how government interventions may improve social welfare even when corruption originates in these very same interventions (see Banerjee (1997), Ades and Di Tella (1997), Acemoglu and Verdier (2000) and Djankov *et al* (2003)). An implication of this approach is that it may be hard to justify interventions in very poor countries that cannot afford to pay the high salaries necessary to control corruption, a point made explicitly in Acemoglu and Verdier (2000). Our paper is closer to Glaeser and Shleifer (2002). They explain the rise of regulation in America as the efficient response to the subversion of justice by robber barons during the Gilded Age, when the scale of business can be assumed to have grown (see also Djankov *et al* (2003)). Finally, a large literature has studied how countries may get to have intrusive regulations (Stigler (1971), Peltzman (1976), Becker (1983), Kroszner and Stratmann (1999), *inter alia*), or bad institutions that retard growth (e.g., North and Thomas (1973), De Long and Shleifer (1993), Acemoglu, Johnson and

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distributive justice. See also Klugel and Smith (1986) and Ladd and Bowman (1998). In the same spirit, we try to incorporate how perceptions of corruption are a component of beliefs about distributive justice.

<sup>5</sup> A large literature in political science has focused on the determinants of legitimacy in political representation. The literature on the legitimacy of commercial institutions is more limited, but see the discussion in Rose-Ackerman (2002). della Porta (2000) and Seligson (2002) discuss empirical evidence based on exposure to corruption. See also Dahl (1956), Huntington (1968), and Weatherford (1992). Political scientists have also studied how party identification moves over time in the US (see, for example, Jennings and Markus (1984)).

Robinson (2001), *inter alia*), or get to choose bad policies (e.g., Alesina and Drazen (1990), Fenandez and Rodrik (1990), *inter alia*). But in these models voters want to have good policies (and capitalism), and there is some impediment to their adoption. We are focused on the case where voters do not want capitalism.

Section I motivates the paper with (new) evidence consistent with the idea that poor countries elect governments that tend to use left-wing rhetoric. Section II explores the empirical connection between corruption and ideological position in three settings: across countries, within countries over time, and across individuals (within countries). Section III presents a model where the observation of corruption changes citizens' beliefs about a characteristic of capitalists (their fairness level) and increases the desire for government intervention. Section IV concludes.

## **I. Motivation: Anecdotal Evidence on Political Rhetoric across Countries**

The claim that political parties in poor countries are less capitalist than those in rich countries, which serves as motivation for this paper, is not well documented. There is some suggestive historical evidence available. For example, a standard informal justification for military coups in Latin America in the 1970's is that they were the only way that right wing ideas could get to be implemented, given their small electoral appeal.<sup>7</sup> The case of Argentina, where the center-left Radical and Peronist parties have alternated in government during the last century, is another case in point.<sup>8</sup> A more systematic approach would involve using data on the pre-electoral rhetoric of political parties around the world. We are, however, unaware of the availability of data on political rhetoric across countries. An examination of voting records of legislators could be a useful proxy, but unfortunately, data with that level of detail are not available beyond OECD countries. Furthermore, politicians sometimes change their "ideology" once in office (and we are interested in their proposed policies *while* they are running for office. See Cukierman and Tommasi (1996). Interestingly, in the one systematic study of

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<sup>6</sup> See Stiglitz (2000).

<sup>7</sup> See, for example, Jauretche (1947). The involvement of the "Chicago boys" with the military dictatorships of Chile and Argentina is sometimes discussed in these terms (e.g., Green (1995)). An alternative explanation is that some degree of authoritarianism is consistent with economic liberalism when pressure groups break the law (see Skidelsky (1988)). See section I below for the general patterns in the dictatorship and ideology data across countries.

<sup>8</sup> Peronists are often labeled right wing given the role of fascism in shaping Peron's ideology. Yet, over the last century, the labor share has been highest with Peronist administrations and the Peronist march intones "*the Peronist lads will fight capital*". Likewise it is claimed that the Menem administration in the 1990's turned right wing, which is plausible, but does not deny the fact that Menem was elected on a populist platform that included a massive wage hike or "*salarioazo*".

this issue available for non-OECD countries, *all* the recorded cases of switches involve populist parties becoming more right wing (see, for example, Stokes (2001)).

### *I.a. Data Source on Capitalist Rhetoric across Countries*

Closer to our needs is the data set compiled by Beck *et al* (2001). They use a two-step approach. First, they record the party identification of a country's political leaders. These include the chief executive (prime minister or president), the largest government party and the three largest parties in the government coalition. Second, they classify the parties following preferences regarding greater or less state control of the economy – the standard left-right scale. This is inferred by their name and by the information contained in a set of sources. Thus, parties that contain terms such as “conservative” or “Christian democratic” in their names are classified as right-wing. Similarly, they are classified as left-wing if their name includes the words communist, socialist, or social democratic. The category center is reserved for parties that are called centrist. Parties that cannot be classified in these categories are recorded as “other” and not included in our study (these are frequently parties in non-competitive electoral systems).<sup>9</sup> When the orientation of the party was not immediately obvious from the name, Beck *et al* checked a set of sources, again with the criteria of greater or less state control of the economy. Parties are classified as center if these sources reveal them to advocate the strengthening of private enterprise but also to support a redistributive role for government. These sources included *The Europa Handbook* and Banks' *Political Handbook of the World* as well as *Political Parties of Africa and the Middle East: A Reference Guide* (1993), *Political Parties of Eastern Europe, Russia and the Successor States: A Reference Guide* (1994) as well as <http://www.agora.stm.it/elections/parties.htm> a website maintained by Agora Telematica which provides short definitions of parties. In the rare case sources disagreed, Beck *et al* noted it in their database (and we exclude them here). The sample includes a maximum of 136 countries over the period 1975-97.

### *I.b. Some Results*

Perhaps the simplest measure to study initially is the color of the party to which the chief executive is affiliated. In 1997 there are data on 105 countries. If we divide this group of countries by income within the sample (real purchasing power) we find that, within the richest third, 44% are classified as left, 3% as center and 53% as right wing. Within the poorest third, 63% are classified as left, 6% are

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<sup>9</sup> Beck *et al* also code governments as nationalistic, regional, rural and religious. They state “*These dimensions were chosen because they do not necessarily correlate with each other: religious or nationalistic parties adopt both left and right wing economic policies;...*”

center and 31% are right. If we use the world distribution of income, which gives us 49 (25) countries in the top (bottom) third, we find that within the richest group countries are evenly split with 24 left and 24 classified as right. Within the poorest group, 68% of countries are classified as left, 8% as center and 24% as right. Moving to a simple table of frequencies for the full 1975-97 sample presents similar results. There are 2,311 country/year observations. Of the 488 for OECD countries, 39% (50%) have a chief executive affiliated to a party classified as left (right) by Beck *et al.* Of the 1,823 observations for Non-OECD countries, 61% (33%) are classified as left (right).

Table A1 in appendix 1 adopts a definition of government that follows more closely electoral appeal (as opposed to political maneuvering) based on the color of the largest government party (rather than of the chief executive). It partitions the sample symmetrically by thirds on the basis of within-sample income. Again the data suggest that successful right wing parties are more frequent in rich countries. Their frequency relative to left wing governments is monotonically increasing in income. This is not affected when the data are analyzed at two points in time in Table A2. Although during the early part of the sample (1975-80) left wing governments were more common than later on (1992-97), in both periods right wing governments are relatively more common in rich countries.

Table A3 compares three alternative definitions of color of government available from Beck *et al.*, chief executive, largest government party and 3 main parties in government. We also assign a cardinal scale to the parties (assigning 1 to right wing parties, 0 to center parties and -1 to left wing parties) so as to simplify comparisons. For all definitions of government a simple t-test strongly suggests that right wing parties are more common in richer countries. In other words, the data give a similar picture to that presented in Table A1.<sup>10</sup> This is still true even when we weigh data on party ideology by the proportion of the total available seats obtained.

Other variables may affect the relationship between government ideology and level of development. An obvious candidate is inequality. Given the low quality of the data it is best to start with raw frequencies of political color and partition the sample in two using data on the Gini coefficient from Deininger and Squire (1996). See Table A4. Availability of inequality data limits the sample

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<sup>10</sup> There do not seem to exist significant trends over time. For example, using the “*Chief Executive*” definition the biggest difference between OECD and non-OECD occurred in the 1980’s (difference equals 0.57), while the smallest was in the 1990’s (difference equals 0.21). In all periods the OECD had significantly more right-wing governments.

(asymmetrically with respect to income). Again poor countries are more left wing and, if anything, more unequal countries seem to be more right wing.

The previous tables treat each country/year observation in our data set as independent. However since our data include repeated observations on the same country over time it is of interest to relax this assumption and give more weight to changes in government. A simple approach is to look at random effects regressions that allow for serial correlation in the error term.<sup>11</sup> Table A5 reports the results. We also include other controls. We include *Freedom*, a country's level of political rights as measured by Freedom House, a control for whether the countries were experiencing civil war (from Doyle and Sambanis (2000)) and a control for inequality (see appendix 2 for data definitions). This is desirable given the correlation between redistribution, democracy and inequality predicted in theories of the growth of government (Peltzman (1980)), of the Kuznets curve and extension of the franchise (Acemoglu and Robinson (2000)) and in theories of capital-skill complementarities during development (Galor and Moav (2003) and Galor *et al* (2003)). Data availability on these new controls reduces the sample to 80 countries. For clarity we also eliminate countries in the Soviet block prior to 1990 (so that only 75 remain) although the results are unaffected by this choice.

Rich countries (i.e., in the top third of the income distribution in our original sample) are again associated with more right wing governments across all definitions, even after controlling for other variables that could be associated with different color of government. It is worth noting that more unequal countries tend to have more right wing parties. This point, which has been made informally contrasting the US and European experiences, is the starting point of Piketty (1995) and Benabou (2000) and, to our knowledge, has not been documented before. The coefficient on *War* indicates a positive and statistically weak association between right-wing government and there being a civil conflict in the corresponding country. Results remain similar if we exclude the smallest 25% of countries based on population size.

There is no correlation between *Freedom* and the ideological orientation of the government. One could still argue that controlling for democratic differences in this way is insufficient to study the robustness of the left/poor correlation and that one should only look at countries with *perfect* degrees

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<sup>11</sup> The need to eliminate the role of serial correlation may seem obvious. But rational voters in a democracy typically *intend* the government to stay the full length of the term.



of freedom. This would be misleading for two reasons. First, countries that are perfectly democratic that are not in the richest third are still very rich relative to the rest of the sample. Thus, we would be studying if capitalism flows to countries that are rich (but not in the richest third). Second and more importantly, our *Freedom* variable concerns how democratic are governments *once in power*, not if they got there through democratic means. Thus, a finding that dictatorships lean left more often than right would still be consistent with right wing parties being unattractive to voters. The reason behind the left/authoritarian correlation may be found in the left-wing view of pressure groups (the “forces of reaction”) as using violence and misinformation through the media (and not just offering bribes). Thus, repression of individual rights is necessary to carry out socialist reforms and socialist countries score low on *Freedom* (Fidel Castro is an actual case of a left-wing politician that is initially popular and then justifies becoming increasingly autocratic in these terms).

## II. The Link between Corruption and Ideological Orientation: Three Pieces of Evidence

As noted in the introduction, informal evidence suggests that the rhetoric of left wing parties in less developed countries is closely connected to corruption. See also Jauretche (1947). In this section we explore evidence bearing on the hypothesis that the resistance to adopting capitalism in the third world is correlated with the public’s perception of corruption. We propose three pieces of evidence. The first comes from re-examining the evidence on the regulation of entry presented in Djankov *et al* (2002). The second comes from examining the relationship between aggregate levels of corruption and political orientation of government within countries (using the Beck *et al* (2001) data set). And the third piece of evidence comes from examining subjective opinions on corruption and the role of government across individuals using World Values Survey data.

### II.a. A Reinterpretation of "The Regulation of Entry" by Djankov *et al* (2002)

In their comprehensive study, Djankov *et al* collect data on the procedures regulating firm entry across countries, including the number of procedures, the time for putting the firm into operation, and total cost.<sup>12</sup> They report that they cannot reconcile the evidence available with public interest theories of regulation. Instead their evidence is consistent with "tollbooth" theories whereby regulations are put into place to allow rent extraction by bureaucrats. For example, a basic finding is

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<sup>12</sup> The procedures include screening (to certify business competence, a clean criminal record, check name for uniqueness, etc), tax related requirements, safety as well as environment related requirements. See Table I, in Djankov *et al* (2002).

that the number of procedures enters positively in bad-performance regressions (i.e., where the dependent variable is water pollution, deaths from intestinal infection, etc). They then present corruption regressions where the number of procedures, time and cost measures all enter positively. They state, "*While the data are noisy, none of the results support the predictions of the public interest theory*" (page 25), favoring instead the "tollbooth theory". Lastly they find that lack of political rights in the country enter positively in regulation regressions (dependent variable=number of procedures). Thus, regulation is heavy in autocratic countries, "*consistent with the public choice theory that sees regulation as a mechanism to create rents for the politicians and the firms they support*" (page 34).

This evidence can also help explain why capitalist ideas don't flow to poor countries. When business people are perceived to be failing to deliver on their social contract, either because they are polluting the environment or because they are corrupting bureaucrats, offended citizens vote for more controls in the forms of more regulations. A simple way to distinguish this explanation from the "tollbooth" theory is to look at evidence at the individual level. A finding that people who perceive corruption to be widespread also want more government regulation would be difficult to explain if regulations were simply facilitating rent extraction by bureaucrats. This kind of evidence is discussed in section II.c. As for the finding that autocrats regulate more, there seems to be an equally appealing interpretation to the one proposed by Djankov *et al*, namely that they are passing these laws and regulations to "buy" the legitimacy that they lack from a democratic electoral process. Remember that their paper focuses on written regulations. By increasing the amount of written regulations, more autocratic leaders strengthen the bargaining position of bureaucrats *vis a vis* firms. But why would they do that? One possibility is that they are simply trying to buy the support of the bureaucracy. But this approach would risk alienating the - typically - more powerful business community. A more plausible story, then, is that autocrats are regulating as a way to discipline business and get the support of the general population, because as Djankov *et al* emphasize, few dictators have a secure position.<sup>13</sup>

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<sup>13</sup> Djankov *et al* argue that "*dictators need the political support of various interest groups, and use the distortionary policies to favor their friends*". They then assert "*the choice of distortionary policy is not mitigated by public pressure since he faces no elections.*" (page 28). An alternative explanation is that there is little exit and at the same time equilibrium industry profits with regulation are so much higher that they compensate for the firm's lower bargaining power.

### *II.b. Corruption and Ideology at the Aggregate level*

A simple approach to see if corruption is playing a role in the appeal of capitalism is to examine the within-country correlation of measures of aggregate corruption and ideology of the government. Table B looks at the correlation between the Beck *et al* (2001) measure of government ideology and the International Country Risk Guide (ICRG) corruption index introduced into economics by Knack and Keefer (1995). The corruption variable is available since 1984 and indicates the opinion of analysts on each country regarding how widespread is corruption. We focus on OLS fixed effect panel regressions and three different definitions of color of government (chief executive, largest government party and three main government parties). The results show that high levels of corruption are correlated with less right wing governments (with a three year lag), across all definitions of government. The relationship is statistically significant. Columns (4) and (5) show that these correlations are robust to weighting the largest government party and three main government parties by the proportion of seats that each of them controls. The analysis is not designed to deal convincingly with problems of endogeneity, so it has to remain illustrative. (As a small step towards addressing these issues, we have lagged the right-hand variables three years).<sup>14</sup> If we also control for an index of development in the above regressions (for example, GDP per capita adjusted for purchasing power parity) then the coefficients on corruption become more negative and significant across all specifications. Interacting the level of corruption with the level of income in these regressions gives a positive and significant interaction term, indicating that the correlation between corruption and how left the government is gets larger in size at low levels of income. This is consistent with the idea that a given level of corruption is more effective in moving the electorate left in poor countries.

### *II.c. Evidence on Individual Beliefs from the World Values Survey*

The data for this section come from the World Values Survey Series (WVS, see Appendix 2). A large random sample of individuals are interviewed and asked a series of questions to "*contribute to a better understanding of what people all over the world believe and want out of life*". The 1995-7 wave includes one survey in each of 51 nations that asks a question on corruption. It asks, "*How widespread do you think bribe taking and corruption is in this country?*" The four relevant response categories are: 1. *Almost no public officials are engaged in it.* 2. *A few public officials are engaged in it.* 3. *Most public officials are engaged in it.*

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<sup>14</sup> We also examined the opposite timing. Granger causality tests comfortably reject the hypothesis that corruption is correlated with lagged left wing government. Results are available upon request.

4. *Almost all public officials are engaged in it.* Accordingly, four dummy variables capturing each of these responses are created: *Perception of Corruption – almost none, - few officials, - most officials, - almost all officials.*

Table C1 uses this variable to study ideological inclination. This is possible because individuals also answer a question on ideological self-placement: *"In political matters, people talk of "the left" and "the right". How would you place your views on this scale, generally speaking?"* The interviewer then shows a scale with numbers 1 to 10 written down with the word *"Left"* below the number 1 and the word *"Right"* below the number 10. Accordingly, the variable *Right Wing* is created taking the values 1-10. A total of 51,810 people across 48 countries answer both questions of interest.

Regressions (1-2) in Table C1 present ordered probit regressions, of the form:

$$Right_{ij} = a Perception\ of\ Corruption_{ij} + b Personal\ Controls_{ij} + Country_j + \varepsilon_{ij}$$

where  $Right_{ij}$  is the ideological position of individual  $i$  living in country  $j$ ,  $Perception\ of\ Corruption_{ij}$  is the perception of corruption of individual  $i$  living in country  $j$ , while  $\varepsilon_{ij}$  is a standard error term (i.i.d) and  $Country_j$  is a country dummy. We also include a large set of personal controls,  $Personal\ Controls_{ij}$  (including gender, age, marital status, income, education, country of residence and employment status of the respondent). When we use all this information the sample reduces further to 37,278 people across 43 nations.

Regression (1) in Table C1 shows that individuals who perceive corruption to be widespread are less likely to identify themselves as right-wingers. Regression (2) shows that the result survives the inclusion of personal controls. They enter with the expected signs: people on higher income, men and the self-employed all tend to lean ideologically towards the right. In both regressions the effect of *Perception of Corruption* is monotonic and large. To obtain a measure of the size of the effect, note that a person who perceives corruption to be widespread (almost all officials engaged in it) is predicted to move toward the left-end of the scale by 0.14 units of the underlying continuous variable relative to the base category (*Almost no public officials are engaged in it*). The size of this effect is bigger than a fall from the top to the bottom income quintile, and suggests that an aggregate corruption shock of this size would move 4.5% of the electorate to the left (i.e., from an even split to 54.5% vote left and 45.5% vote right). A similar estimate, although smaller in size, obtains when

we limit the sample to countries in the OECD. This again supports the idea that the left-corruption connection is stronger in poorer countries.

Although the strength of the average effect is striking, there are examples suggesting that the effects vary in intensity depending on the historical circumstances. Indeed, the pro-market reforms of the early 1990's in Argentina were sometimes justified by the high levels of corruption in the state-owned companies. This suggests that it is worth comparing countries that differ in their history of interventionist governments. Specifically we compare the effect of observing corruption on ideological inclination for countries with different starting ideology. This is done by including the variable *Largest Government Party* (equal to one when the largest government party is right and  $-1$  when it is left, see Appendix 2) averaged over the previous five years into regression (2), as well as an interaction term. This leaves a sample of 33,244 individuals in 35 countries. Standard errors are clustered at the country level. Specifically, the coefficient on perception of corruption (cardinalized with equal distance between the categories) is  $-0.033$  (s.e. 0.016), the coefficient on *Largest Government Party* (right) equals 0.198 (s.e. 0.080), while the interaction between *Largest Government Party* (right) and *Perception of Corruption* equals  $-0.055$  (s.e. 0.020). Thus, individuals who perceive there to be more corruption within the country are more likely to be left and on average people are more right in countries that have had a right wing government over the past five years. Importantly, the observation of corruption turns people left more when the government has been ideologically to the right. Similar results obtain with other definitions of government ideology (*Chief Executive* and *Three Main Government Parties*).

This suggests, more generally, that corrupt acts differ in the way they are perceived by the electorate. The corruption literature has suggested that there are two different types of corruption: extortion and capture. The former is initiated by a bureaucrat on a firm that would otherwise be honest; the latter is initiated by a firm on a bureaucrat (or politician) that typically has to change the law to favor the firm.<sup>15</sup> The WVS includes the question "*Generally speaking, would you say that this country is run by a few big interests looking out for themselves, or that it is run for the benefit of all the people?*" The possible answers are 1. *Run for all the people* and 2. *Run by a few big interests*. We define the variable *Captured* as those answering the second option. Regression (3) includes *Captured* together with *Perception of Corruption* in

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<sup>15</sup> Legally, a firm that pays up under extortion is not guilty of bribery. Often, however, a firm that is being extorted can also obtain favors from the bureaucrat (that harms competitors), so the distinction is blurred in practice.

our ideology regressions. The coefficient on *Perception of Corruption* after controlling for *Captured* provides us with one rough measure of the extent to which individuals see corruption of the extortion variety. The effect of *Perception of Corruption* is smaller, reflecting the high correlation between the measures of the two types of corruption. Interestingly, the effect is negative and significant suggesting that corruption, even of the extortion variety, moves people left.

These findings introduce two restrictions on the theoretical explanations that we derive below (Section III). First, the effects should vary with the history of intervention in the country. Observing corruption in an interventionist environment has a smaller effect than observing it in an environment where taxes and intervention are low. Second, corruption even of the extortion type (typically involving low-level bureaucrats) sometimes makes people upset with firms. More generally, these results are difficult to rationalize using the results in Djankov *et al* (2002). These authors show that the "tollbooth" theory of regulation performs better than the "public interest" theory. Our results suggest, however, that the tollbooth theory cannot be the full story. If bureaucrats are putting in regulation to extract bribes, then why would it be that rational people who observe corruption want more intervention? In section III below, we develop a simple theory of regulation based on the idea of the "legitimacy" of business.

#### *Robustness: Perceptions of Corruption and Economic Attitudes*

People may have different views on what they define as left and what they define as right. The differences that occur across countries are absorbed into the country dummies included in our regressions. It is still of interest to examine the connection between corruption and the various components of ideology. Previous work emphasizes how left/right political choices reflect the basic cleavages in society. Lipset and Rokkan (1967), for example, argue for the importance of the religious and class (or economic) cleavage. A large part of the variation in the latter that explains party choice can be captured by an individual's belief concerning three basic economic questions: beliefs concerning the role that individual needs should play in determining income, beliefs concerning the role of merit in determining income, and the beliefs concerning how desirable is private ownership of property.<sup>16</sup>

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<sup>16</sup> The literature discussing the nature of political beliefs is vast (see, for example, de Tocqueville (1955), Lipset (1979), *inter alia*; see also the discussions in Rokeach (1973), Feldman (1988), Inglehart (1990) and Zaller (1991)). Beliefs are defined as the combination of the available information with a set of more stable individual values (that condition the acceptance/rejection of particular arguments). See Zaller (1991) for a recent discussion.

Table C2 uses a similar regression to the one above but with different dependent variables that capture these different dimensions of ideology. We start with the role of needs as captured by attitudes towards poverty. For ease of exposition we treat the variable *Perception of Corruption* as cardinal (assigning the value 1 to “almost no officials” and 4 to “almost all officials”). We also attach the letter R (L) if, in the natural interpretation, higher values are associated with a right wing (left wing) ideological placement. The dependent variables in the first three columns deal with attitudes towards poverty. Column (1) in Table C2 uses the answer to the question “*Why, in your opinion, are there people in this country who live in need? Here are two opinions: which comes closest to your view?*” The two relevant options are 1. *They are poor because of laziness and lack of willpower*, OR 2. *They are poor because society treats them unfairly*. The variable, which is called *Not Lazy-L* is positively associated with *Perception of Corruption*, suggesting that people who perceive corruption to be widespread are more likely to reject the idea that poverty is due to laziness in favor of the idea that the poor are unfairly treated by society, compared to those that do not think that corruption is widespread.

Column (2) explores a different framing. It asks “*In your opinion, do most poor people in this country have a chance of escaping from poverty, or there is very little chance of escaping?*” The two relevant answers are 1. *They have a chance* or 2. *There is very little chance*. Again those who perceive high levels of corruption also express a left wing view. Column (3) focuses on the question “*Do you think that what the government is doing for people in poverty in this country is about the right amount, too much, or too little?*” The relevant answers are 1. *Too much* or 2. *About the right amount*, or 3. *Too little*. It reveals that people who perceive corruption to be widespread are also more likely to say that the government is doing too little to alleviate poverty. This result is interesting for theories that see corruption arising from government intervention. One possibility is that individuals understand that the optimal intervention may be larger when the bureaucrats implementing them are corrupt, as there could be leaks. This is implausible and depends on there being no aversion to corruption per se.<sup>17</sup> Thus, the result in column (3) is consistent only with a sophisticated version of what Djankov *et al* (2002) call the “public interest” view and is inconsistent with the “tollbooth theory” where regulation is put into place to extract fees.

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<sup>17</sup> Ades and Di Tella (1997) call these “super-Pigouvian” interventions (see also Banerjee (1997), Acemoglu and Verdier (2000) and Djankov *et al* (2003)). When there is aversion to corruption, “anti-Pigouvian” policies may be optimal.

Column (4) asks about beliefs concerning the role of merit in determining income (interpreting merit as payment in proportion to individual output). The dependent variable is the answer to *"Imagine two secretaries, of the same age, doing practically the same job. One finds out that the other earns considerably more than she does. The better-paid secretary, however, is quicker, more efficient and more reliable at her job. In your opinion, is it fair or not fair that one secretary is paid more than the other?"* Individuals who perceive corruption to be widespread are more likely to say that it is not fair to pay more to the more efficient secretary.

Column (5) in Table C2 turns attention to individual beliefs concerning how desirable is private ownership of property. The dependent variable is the answer to the question, *"There is a lot of discussion about how business and industry should be managed. Which of these four statements comes closest to your opinion? 1. The owners should run their business or appoint the managers; 2. The owners and the employees should participate in the selection of managers. 3. The government should be the owner and appoint the managers; 4. The employees should own the business and should elect the managers."* Individuals who perceive corruption to be widespread are also less likely to say that business should be managed in ways that are typical of capitalism.

Columns (1b-5b) run a similar set of regressions, but also include the same set of personal characteristics used in Table C1. The results remain similar.

### **III. Corruption and Ideological Orientation: Interpretation**

The patterns present in the data raise two broad questions. First, do the correlations uncovered in Tables C1-2 involve a causal effect? Second, if the effect is causal, what explains it? In other words, why do people turn left when they observe corruption?

#### *III.a. Causality*

There are two broad causal interpretations for the corruption-left correlation uncovered in Tables C1-2. First, it could reflect that observing corruption causes people to move left. Alternatively, it could reveal that observing corruption is a fixed left wing trait. Our research approach is not designed to deal with this issue convincingly, so a full investigation is left for future research.



One possibility we explored was to see if *Perception of Corruption* was correlated with other, non-economic aspects of ideology. If there were no correlation, one could argue that observing corruption is not a general left wing trait (although it could still be an economic fixed trait). One problem we encountered reading the literature was that it was less clear what political scientists think are the core non-economic ideological beliefs. Some political scientists have argued for the increasing importance of values that emphasize a libertarian/authoritarian dimension as well as “post materialist” values that focus on quality of life (rather than economic preservation).<sup>18</sup> A recent example is a paper by Knutsen and Kumlin (2003), which identifies moral values (religious versus secular), libertarian/authoritarian and ecology versus growth orientation as the three central (non-economic) values used in party choice. When we correlate *Perception of Corruption* with variables included in the World Values Survey to capture these categories, we get a mixed picture. For example, the moral core value of ideology is captured by asking “Please tell me if homosexuality can always be justified, never be justified or something in between”. The scale reveals that 1 equals “Never justifiable” while 10 equals “Always justifiable”. The correlation with *Perception of Corruption* is negative and, once personal controls are included, significant at the 1% level. People who perceive corruption to be widespread are more likely to report the standard right-wing answer (*Never justifiable*) not the left-wing one (*Always justifiable*). This is contrary to what was found in Table C2 where economic attitudes were used. When we study the other variables available in the WVS capturing non-economic attributes of ideology identified in previous work we obtain more mixed results (available upon request).

A more formal approach is to compare the effect of corruption perceptions on right wing inclination under three different specifications. The first involves only one right-hand variable: *Perception of Corruption*. The second involves this variable, as well as the set of economic beliefs included in the WVS. And the third involves *Perception of Corruption* and the set of non-economic beliefs included in our data source. The coefficient on *Perception of Corruption* is unchanged when moving from the first to the third specification; whereas it is halved when we move from the first to the second specification (equality of the corruption effect on the first and second specifications is rejected at the 10% level). This is suggestive of the idea that part of the effect of corruption on ideology operates through its impact on economic beliefs.

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<sup>18</sup> See Inglehart and Klingemann (1976), Flanagan (1987), Kitschelt (1994), *inter alia*.

### *III.b. Two Interpretations*

From the point of view of the objectives of the paper, however, the ambiguity about causal effects is perhaps less worrying. The reason is that, even if there is a non-causal interpretation and left wingers just happen to see corruption everywhere, the evidence would still explain the findings in tables A and B. In particular, it would explain the main question in the paper, namely why capitalist rhetoric doesn't flow to poor and corrupt countries. To see this, assume that a left and a right wing party compete for votes. The left wing rhetoric includes the word corruption whereas right leaning politicians never mention it. Now assume that a shock increases the amount of corruption in the country. Voters that observe this will see that the left-wing politician was correct on this issue. Other things equal, this will make voters lean left. Thus, shocks that increase the perception of corruption would lead voters to choose left wing parties, and for capitalist ideas not to be adopted, even if the corruption-left connection is a fixed effect at the individual level.

A more difficult challenge conceptually is to build a causal theory, whereby corruption is observed and people then turn left. We develop the notion that commercial institutions have to be "legitimate" as a mirror to the idea of legitimacy in government which has been discussed in the political science literature. Thus, the public decides to tax, regulate, monitor and control business according to how "deserving" they perceive them to be. Businesses, in turn, are more deserving the more they share the social norms of society, for example in terms of fairness and honesty, as well as the more productive they are. Before making these notions more precise in a model, we note some requirements that we impose on our explanation. First, as discussed in section II.c, it has to explain why an act of corruption turns the public against businesses when both business and bureaucrats have to be willing participants in such acts. Second, and also as discussed in section II.c., we ask that the predictions vary with the general level of intervention in the economy. Thus, corruption when intervention is heavy is less damaging to firms than when government intervention is low.

Finally, historical examples suggest that we should ask the theory to account for the many historical cases in which right wing parties fail to convince voters that they will be tough on capitalists. An example of this is the failed presidential bid of novelist and liberal candidate Mario Vargas Llosa in Peru in 1990. His candidacy had everything one would expect is needed to achieve a "separation" between the right and bad capitalists (e.g., his wealth was not derived from contracts with the state).

A standard informal explanation is that people vote by emotional association.<sup>19</sup> Thus, voters in corrupt countries may emotionally associate the capitalist party with bad entrepreneurs, regardless of the policies the party proposes. This can be interpreted as a form of fairness motives in the utility function. Interestingly, an important case where separation between the pro-capitalist party and bad capitalists was achieved is Theodore Roosevelt's presidency in the US. The standard account of how he achieved this appears to be consistent with a (variant) of fairness motivations as the need for regulating big business was connected to morality in some of his writings (see Morris (2001)). This episode suggests that when a second policy is available (punishment and regulation of the offending firms), other pro-business policies are possible. Note also that fairness helps explain the separation failure because it is based on previous information. Thus, voters are not attracted to a party that credibly promises to stop corruption from now on as what they want is someone that can reduce the payoff of the (corrupt) capitalists. In this view, capitalism can only succeed only after the bad capitalists are "punished". On how laws conceive the corporation as a moral actor, see Rose-Ackerman (2002).

We propose a model where corruption reveals information about the type of capitalists in terms of how "fair" or deserving they are. (The working paper version of the paper develops a model based on rational preferences where capitalists have different productivities; available upon request). In it, the decision of the public to adjust bureaucratic wages is absent. This is done without serious loss of generality as long as in equilibrium technology (in particular monitoring ability) and distribution of preferences (moral costs) are such that it is not optimal for the public to set wages in such a way as to deter all forms of corruption. See Besley and McLaren (1993) and Mookherjee and Png (1993).

#### *A Link between Corruption and Ideology based on Fairness Considerations*

The setup is a one shot "dictator" game augmented with a prior signal concerning the corruption of the capitalists and the bureaucrats. We consider only one broad policy available to voters. We assume a type of preferences that mean that workers do not fully confiscate the rich because they would regard that as "unfair" (e.g., Akerlof and Yellen (1991), Rabin (1993)). In particular individuals have "reciprocal preferences", as in Levine (1998) and Rotemberg (2002, 2003).

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<sup>19</sup> If capitalism in the past has been implemented by a ruthless dictator or by a colonial power, then voters in subsequent elections would find hard to push for pro-business capitalist policies.

### *Preferences*

Giving the subscripts  $b$ ,  $f$  and  $v$  to variables corresponding to the bureaucrat, firm and worker respectively, and denoting by  $U$  their material payoffs (i.e., their payoffs aside of any altruistic feelings) we define their preferences as

$$W_b = U_b + \lambda_b U_v \quad (1)$$

$$W_f = U_f + \lambda_f U_v \quad (2)$$

$$W_v = U_v + \lambda_{vf}(\hat{\lambda}_f)U_f + \lambda_{vb}(\hat{\lambda}_b)U_b \quad (3)$$

where  $\lambda_s$  is a parameter denoting the unconditional level of altruism of the  $s$ =*firm, bureaucrat* towards the agent and  $\lambda_{vs}(\hat{\lambda}_s)$  is the worker's altruism, assumed to be an increasing function of  $\hat{\lambda}_s$ , the worker's best estimate of the firm's (or bureaucrat's) altruism.<sup>20</sup> Without loss of generality we assume that there are no altruistic feelings between firms and bureaucrats. This formulation assumes that workers would want to respond like with like. As stressed by the above authors, this function has to adopt some positive values in order to explain voluntary contributions in public goods experiments, and negative values in order to explain rejections of positive offers in ultimatum games. For the purposes of this application, it is sufficient to assume that it is an increasing function of  $\hat{\lambda}_s$ . For simplicity, it is assumed that all firms (bureaucrats) have the same altruism parameter, which can take only two values,  $\lambda_s \in \{\lambda_{sg}\} = \{\lambda_1, \lambda_2\}$  (where  $g \in \{1, 2\}$ ). The ex ante probability that altruism is  $\lambda_{sg}$  is given by  $k^{sg}$  and is common knowledge.

### *Government*

Individual workers are endowed with an amount  $R$  of resources each period that is put into the custody of the bureaucrats (e.g., for national defense). Firms pay a lump sum tax  $t$  to workers.

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<sup>20</sup> An alternative interpretation is that the perceived merits of the capitalists and bureaucrats drives the "altruism" of the worker, as in the Hoffman *et al* (1994) experiments where the property right of being the first mover is "earned" by scoring high in a general knowledge quiz and first movers with high scores exhibit more "self regarding" behavior.

### *Technology and Contracts*

There are an equal number of firms, bureaucrats and workers. Production by the firm yields  $p$ . Firms keep  $\alpha_f p$ , bureaucrats keep  $\alpha_b p$  while workers keep  $\alpha_v p$ .<sup>21</sup> It is reasonable to assume that the bureaucrat's material payoff is smaller than that of the firm's.

### *Corruption*

When the firm is honest and produces, the players receive their payoffs described in (1-3), which we now index with superscript "honest",  $W_s = W_s^{honest}$ . When there is corruption they receive  $W_s^{corrupt}$ .

In this case the worker's material payoff is 0, and the firm and bureaucrat each obtain  $\frac{R}{2} - m$ . The second term is a common moral cost that is privately observed (i.e., by the bureaucrat and the firm but not by the worker). Its distribution is common knowledge and is denoted  $F(m)$ .

### *Timing*

At the beginning of the period all bureaucrat-firm-worker trios are formed and observe a signal on the level of corruption.<sup>22</sup> A worker then estimates  $\hat{\lambda}_s$  and decides a level of taxes that maximizes expected utility. Firms and bureaucrats find out the (common) value of the moral cost. They then produce or engage in corruption and output is shared.

### *Results*

For a given level of taxes, it is possible to define a cutoff moral cost (for each altruism parameter) such that all firms with lower moral cost are corrupt. In other words, all firms for which

$$\alpha_f p - t + \lambda_{fg} U_v(R + \alpha_v p + t) \geq R/2 - m \quad (4a)$$

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<sup>21</sup> A standard assumption is that bureaucrats derive an enjoyment from the size of the public sector. Note that this effect is already present in the model, arising indirectly since higher taxes increase the payoff to workers who bureaucrats care about. Thus, our results can also be derived assuming bureaucrats care directly about the size of the public sector by letting  $U_b = g(t)$  where  $g$  is an increasing function.

<sup>22</sup> In the repeated game version, this comes from observing income in the previous period. It has to be assumed that the probability that the worker is the median voter is sufficiently small so that firms ignore signaling (see Rotemberg (2003)).

produce, where  $U(0) = 0$  and  $U_f$  is assumed linear for simplicity. Otherwise they are corrupt. Call the level of  $m$  for which the equation above holds with equality,  $m^{fg}$ . A similar logic determines  $m^{bg}$ , the level of the moral cost that makes the bureaucrat indifferent between participating in the corrupt transaction or not. In other words:

$$\alpha_b p + \lambda_{bg} U_v(R + \alpha_v p + t) = R/2 - m^{bg} \quad (4b)$$

After observing corruption, the worker's best estimate of the firm's (bureaucrat's) altruism parameter is:

$$\hat{\lambda}_s = \lambda_{s1} z(\lambda_{s1} |_{corruption}) + \lambda_{s2} z(\lambda_{s2} |_{corruption}) \quad (5)$$

where the values of  $z(\cdot)$  are conditional probabilities. Note that for corruption to occur, both bureaucrat and firm need to be willing. Since the honest material payoff to the firm is higher than to the bureaucrat, the binding moral cost is always the firm's ( $m^{fg}$ ) except when the difference in altruism is very large and a non-altruistic firm meets an altruistic bureaucrat (so  $m^{f1} > m^{b2}$ ). For the former case, Bayesian updating occurs only on the firm's level of altruism:

$$z(\lambda_{sg} |_{corruption}) = \frac{k^{sg} F(m^{sg})}{k^{s1} F(m^{s1}) + k^{s2} F(m^{s2})} \quad (6)$$

where  $s=f$ . For the case where  $m^{f1} > m^{b2}$ , updating also occurs on the altruism level of the bureaucrat. Ignoring this case momentarily, the worker's problem after observing the state  $r$ , where  $r \in \{Corruption, Honesty\}$ , is to set the level of taxes to maximize expected utility.

$$Max_t \quad EW_v|_r = \left( \sum_g z(\lambda_{fg}|_r) (1 - F(m^{fg})) \right) W_v^{honest} + \left( \sum_g z(\lambda_{fg}|_r) F(m^{fg}) \right) W_v^{corrupt} \quad (7)$$

The first order condition is given by:

$$\left( \sum_g z(\lambda_{fg}|_r)(1 - F(m^{fg})) \right) \left( \frac{\partial U_v}{\partial t} - \lambda_{vf}(\hat{\lambda}_f) \right) - \left( \sum_g z(\lambda_{fg}|_r)(1 - \lambda_{fg} \frac{\partial U_v}{\partial t}) f(m^{fg}) \right) (W_v^{honest} - W_v^{corrupt}) = 0 \quad (8)$$

Equation (8) suggests that workers balance the income from taxes with their desire to be fair to firms and the “incentive” costs of high taxes (captured here through the size of the black economy). The following proposition can be established:

**Proposition 1:**

1. The observation of corruption increases desired taxes on account of fairness considerations (as it reduces the belief that firms are altruistic towards workers).
2. Countries where firms are productive and government is small have less corruption
3. If the party of low taxes credibly promises to control corruption, its appeal may still be lower than that of the high tax party.
4. When taxes are high, corruption does not change the voter’s estimate of the firm’s altruism.
5. There is a negative externality from corrupt entrepreneurs to honest entrepreneurs.

*Proof:*

To see 1., note that  $z(\lambda_{f2}|_{corruption}) < k^{f2}$ . Then, note that when fairness considerations dominate tax-setting, we have that  $t^*|_{Corruption} > t^*|_{Honesty}$ , where  $t^*|_r = \arg \max EW_v|_r$  (The FOC reduces to  $\frac{\partial U_v}{\partial t} - \lambda_{vf}(\hat{\lambda}_f) = 0$  as  $f \rightarrow 0$  where the limit captures the importance of fairness relative to size-of-the-shadow-economy considerations. Hence if corruption is observed,  $\lambda_{vf}(\hat{\lambda}_f)$  drops which implies that taxes must rise, assuming  $\frac{\partial^2 U_v}{\partial t^2} < 0$ ).

To see 2., define a rich country as one that has a large  $\frac{P}{R}$ . Calculate the total amount of corruption

as  $\sum_g k^{fg} F(m^{fg})$  and then note that  $\frac{\partial m^{fg}}{\partial (\frac{P}{R})} < 0$  for all  $g$ .

To see 3., note that having observed corruption, reciprocal preferences mandate higher taxes (first term in equation (8)). Since future corruption levels will be controlled, there are no incentive effects of higher taxes in terms of driving entrepreneurs into the shadow economy (and the second term drops out, reinforcing the effect).<sup>23</sup>

To see 4., note that  $\lim_{t \rightarrow p} F(m^{f2}) / F(m^{f1}) = 1$ .

To see 5., note that profits for an honest firm are lower after the worker observes a corrupt firm.

To see that allowing  $m^{f1} > m^{b2}$  does not affect our conclusions, note that  $F(m^{b2}) > F(m^{f2})$  when the bureaucrat's material payoff is smaller than the firm's, so that the observation of corruption still leads to a smaller update on the bureaucrat type than on the firm's type.

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The intuition for the key result (the observation of corruption is more damaging to capitalists than to bureaucrats) is as follows. Firms dislike taxes. Bureaucrats like them (in our setup this occurs indirectly; see also footnote 21). An act of corruption means that both were, to some degree "unfair" towards workers. Why then react hurting one more than the other? First, there is the fact that voters get some of the tax receipts. Second, and more importantly, for a similar level of altruism, the bureaucrat is always ready to be corrupt because of the (assumption of) lower pay. Thus, the act of corruption is more telling (i.e., induces a larger change in the posterior) on the firm's level of altruism. This predicts that a person that sees corruption amongst public officials as widespread will declare to dislike capitalists (the correlation between these two WVS questions is significant at the 1 per cent level).<sup>24</sup> An alternative explanation is to exploit the natural distinction between extortion and capture. The distinction being that, by assumption, only bureaucrats misbehave under extortion whereas only firms misbehave in the case of capture. Then, if capture cases tend to involve better known actors from business and politics than extortion cases, they would tend to be covered more often in the media (e.g., Mullainathan and Shleifer (2002)) and to be more salient in the eyes of the public when they make their voting decisions.

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<sup>23</sup> This result is robust to modeling the incentive effects of taxes in more traditional ways (e.g., when incentive effects are derived from reduced individual effort rather than lower profit reporting).



The model emphasizes the idea of commercial legitimacy, whereby the income of business people has to be accepted by voters. This idea, which parallels the notion of legitimacy of government authority employed by political scientists, is summarized in the model by the degree of mutual respect (or reciprocal altruism) of the different members.<sup>25</sup> In particular, the main variable of interest (the level of taxation) is determined by a combination of self-interest, a sense of fairness towards others and an incentive constraint arising from the difficulty of producing output in a highly taxed economy.<sup>26</sup> This is related (but not identical) to a class of efficiency problems generated by high taxes that prevent the poor from fully taxing the rich. More precisely, in this model the main cost of taxes from the point of view of the voters is that firms hide more (i.e., join the unofficial economy). Formally this plays a similar role to having the standard efficiency costs of high taxes.<sup>27</sup> One advantage of the present set up is that voters update less when taxes are high, something that could capture the idea that corruption is more “justifiable” when taxes are high.

A difficulty in the fairness models is that outcomes are judged according to how close they are to a target or “fair” outcome, but there is no natural way to define this. We follow Levine (1998) and Rotemberg (2002, 2003) in assuming that an agent’s feelings towards others are affected by what they believe others feel towards them. Thus, a bigger weight is put on money in the hands of an individual who is thought to be more altruistic. This naturally leads to a dynamic signaling game, as a player’s actions potentially reveal their altruism. While we wish to retain the basic notion of fairness, the idea that an individual firm will change their (secret) corrupt behavior to affect these perceptions is implausible, even if these secret acts sometimes get caught. The set up we analyze, a dictator game augmented to allow for a prior signal, reflects this (as in Hoffman *et al* (1994) and Ruffle (1998)).

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<sup>24</sup> This important aspect of the model where income differences between bureaucrats and capitalists drive the changes in beliefs against the richest actor can be taken as a metaphor for the differences in power that the two have (whereas in an extortion the powerful party is the bureaucrat).

<sup>25</sup> This formalizes the idea that “*corporations have an obligation to refrain from illegal payoffs as part of the quid pro quo implied by the laws that permit corporations to exist and operate*”, Rose-Ackerman (2002).

<sup>26</sup> As in work on why the poor do not expropriate the rich (e.g., Putterman (1996), Roemer (1998) and Benabou (2001)). Note that, even if efficiency considerations were absent, a sufficiently high desire for fair outcomes would bring about an interior solution. This is desirable given that the correlation between income inequality and taxation across rich countries is weak. Moreover, the multiple equilibria arising in previous models seeking to explain the economic systems in the US and Europe are rankable in terms of GDP (if not Pareto-rankable). See, for example, Piketty (1995), Benabou (2000), Alesina and Angeletos (2003). Note also that these considerations are secondary; we are ultimately more interested in the correlates of the equilibrium level of taxes than what this level is.

<sup>27</sup> See Johnson *et al* (2000), Svensson (2001) and Choi and Thum (2003). Extending the set up to include firm investment shows that corruption is more damaging than taxes (as long as moral costs are discovered after investments), consistent with the arguments in Shleifer and Vishny (1993) and Wei (1997). An emphasis on tax evasion as a response to tax increases (e.g., versus labor supply responses) is consistent with the empirical evidence in Auerbach and Slemrod (1997).

Finally, there is an ideological externality in the sense that the individually rational acts of corrupt entrepreneurs lead to the belief that capitalists are un-deserving, hurting the rest of society (good entrepreneurs and workers). The profits of entrepreneurs are inter-dependent as corrupt acts give a bad name to capitalism and hurt good entrepreneurs (see Velasco and Tornell (1992) for a different type of externality in a model with interest groups). This result depends on the degree of correlation of altruism levels across capitalists that is assumed. This provides some justification for the preoccupation of corporations to have other firms adopt forms of corporate social responsibility. See also the discussion in section 4 of Rose-Ackerman (2002).

#### **IV. Conclusion**

Our paper is made up of three parts. In the first, we explore anecdotal evidence suggesting that political rhetoric in developing countries is tilted to the left of the ideological spectrum. Thus, right-wing rhetoric is *less* extreme in poor countries than in rich countries while the rhetoric of left-wing parties appears *more* extreme in poor countries than in rich countries. Overall, this suggests that US-style, pro-capitalist political parties have electoral difficulties in the third world. We do not have formal systematic evidence on electoral rhetoric, but data on the ideological identification of political parties around the world from Beck *et al* (2001) is consistent with this view.

In the main part of the paper we attempt to provide an explanation. Our conjecture is that corruption plays a role in shaping ideologies. The paper provides empirical evidence that is consistent with the hypothesis that corruption moves the electorate to the left. We discuss three types of evidence.

1. First, we argue that cross-country evidence showing that more regulation is correlated with more corruption (Djankov *et al* (2002)) is consistent with the idea that corruption reduces the appeal of capitalism (as well as with the “tollbooth” theory presented by these authors).
2. Second, we present evidence on a link at the aggregate level between corruption and ideology within countries. We show that there is a negative correlation between a country’s aggregate level of corruption and how much to the right is the government in later years (and there is no evidence of reverse Granger causality).

3. Third, we look at data on beliefs across individuals within countries. We show that people who think that corruption amongst public officials is widespread in the country tend to report themselves on the left of the political spectrum. The effect is monotonically increasing in the perception of corruption, well defined statistically, and comparable in size with other determinants of left-wing preferences, such as being on low income. We partition ideology into economic and non-economic attributes of ideology, and document their correlation with perceptions of corruption. People who perceive there to be widespread corruption also tend to think that the government is doing too little to fight poverty or to think that the government should run firms (rather than owners and managers).

In the third and final part of the paper, we discuss possible interpretations of these correlations. We ask that the model is consistent with three pieces of evidence, including that a) the corruption-left connection changes with a history of heavy government intervention in the country, b) corruption of all kinds (i.e., both of the capture and of the extortion variety) turn people away from capitalism, and c) even right-wing parties that credibly promise to control corruption often have electoral difficulties (i.e., there is failure to separate bad capitalists from right wing parties). The root assumption of the model is that voters are willing to pay to punish people who are of the "unfair" type (as in the ultimatum game). Bayesian updating after an act of corruption, is more unfavorable to capitalists (than to bureaucrats) because they are richer. Thus, even if we do not exploit the distinction between extortion (corruption initiated by bureaucrats which hurts firms) and capture (corruption initiated by firms for their benefit), the model can still explain why corruption hurts capitalists more than bureaucrats. The existence of corrupt entrepreneurs hurts good entrepreneurs by reducing the general appeal of capitalism. Accordingly, perhaps the most important message of the model is that it points out that corrupt entrepreneurs can have a negative effect on *all* entrepreneurs by undermining the electorate's faith in markets. A limitation of our model is that good entrepreneurs and the public have no way of disciplining corrupt entrepreneurs. In practice there may be ways of making these entrepreneurs internalize the costs of their actions (perhaps through judicial prosecution or through social norms).

Overall, the paper shows that corruption has an ideological side to it. Increases in corruption adversely influence the electoral performance of pro-capitalist parties.

**Table A1: Frequency of Political Color of Government by Income**

	Top income (1 <sup>st</sup> )	Middle Income (2 <sup>nd</sup> )	Bottom Income (3 <sup>rd</sup> )
<i>Left</i>	244 (37.7 %)	290 (45.0 %)	436 (67.6 %)
<b>Center</b>	78 (12.1 %)	59 (9.2 %)	62 (9.6 %)
<b>Right</b>	325 (50.2 %)	295 (45.8 %)	147 (22.8 %)
<b>Total</b>	647 (100 %)	644 (100 %)	645 (100 %)

**Note:** Frequencies of government (definition used is "largest government party") for 136 countries over the period 1975 to 1997. Percentiles within income group in parentheses.

**Table A2: Frequency of Political Color, Beginning and End of the Sample Period.**

1975-80	Top income (1 <sup>st</sup> )	Middle Income (2 <sup>nd</sup> )	Bottom Income (3 <sup>rd</sup> )
<i>Left</i>	65 (44.2 %)	69 (50.4 %)	73 (67.6 %)
<b>Center</b>	21 (14.3 %)	10 (7.3 %)	7 (6.5 %)
<b>Right</b>	61 (41.5 %)	58 (42.3 %)	28 (25.9 %)
<b>Total 1975-80</b>	147 (100 %)	137 (100 %)	108 (100 %)
1992-97	Top income (1 <sup>st</sup> )	Middle Income (2 <sup>nd</sup> )	Bottom Income (3 <sup>rd</sup> )
<i>Left</i>	68 (36.1 %)	92 (40.2 %)	143 (64.7 %)
<b>Center</b>	14 (7.5 %)	23 (10.0 %)	34 (15.4 %)
<b>Right</b>	106 (56.4 %)	114 (49.8 %)	44 (19.9 %)
<b>Total 1992-97</b>	188 (100 %)	229 (100 %)	221 (100 %)

**Note:** Same as Table A1 above.

**Table A3: Political Color of Government: Three Alternative Definitions**

	Chief Executive	Largest Government Party	3 Main Government Parties
<i>Richest (Top Third)</i>	0.13	0.13	0.11
<i>Poorest (Bottom Third)</i>	-0.44	-0.45	-0.42
<b>t-statistic</b>	11.4	11.6	11.8
<b>significance</b>	<0.1%	<0.1%	<0.1%

**Note:** Averages are obtained assigning value 1 to the right wing party, 0 to the center party and -1 to the left wing party. *t*-statistic refers to the difference in means test between Top Third and Bottom Third.

**Table A4: Frequency of Political Color, by Income and Inequality Levels**

		Top income (1 <sup>st</sup> )	Bottom Income (3 <sup>rd</sup> )
Low Inequality	<i>Left</i>	111 (44 %)	43 (96 %)
	<b>Center</b>	24 (10 %)	0 (0 %)
	<b>Right</b>	116 (46 %)	2 (4 %)
	<b>Total</b>	251 (100 %)	45 (100 %)

		Top income (1 <sup>st</sup> )	Bottom Income (3 <sup>rd</sup> )
High Inequality	<i>Left</i>	19 (27 %)	68 (58 %)
	<b>Center</b>	24 (34 %)	8 (7 %)
	<b>Right</b>	27 (39 %)	42 (35 %)
	<b>Total</b>	70 (100 %)	118 (100 %)

**Note:** Political color defined with color of *Largest Government Party*. *Top (Bottom) Income* denotes that the country is in the richest third of the sample *Inequality* is measured by the Gini coefficient, Deininger and Squire (1996).

**Table A5: Political Color, Random Effects Regressions, 75 Countries, 1975-1997.**

	(1) Chief Executive	(2) Largest Gov't Party	(3) 3 Main Gov't Parties	(4) Largest Gov't Party - Seats	(5) 3 Main Gov't Parties - Seats
<i>Middle (center third)</i>	<b>-0.41*</b> (0.17)	<b>-0.39*</b> (0.16)	<b>-0.38**</b> (0.15)	<b>-0.29**</b> (0.11)	<b>-0.24**</b> (0.10)
<i>Poorest (bottom third)</i>	<b>-0.46*</b> (0.20)	<b>-0.50**</b> (0.19)	<b>-0.44**</b> (0.18)	<b>-0.26*</b> (0.12)	-0.17 (0.11)
<b>Freedom</b>	-0.02 (0.03)	-0.01 (0.04)	0.01 (0.03)	-0.01 (0.02)	0.01 (0.02)
<b>War</b>	0.21 (0.23)	0.24 (0.20)	<b>0.37*</b> (0.17)	<b>0.24</b> (0.14)	<b>0.23</b> (0.13)
<b>Inequality</b>	<b>0.02**</b> (0.01)	<b>0.02**</b> (0.01)	<b>0.02*</b> (0.01)	<b>0.01**</b> (5e-3)	<b>0.01*</b> (5e-5)
<i>R<sup>2</sup> overall</i>	0.06	0.07	0.07	0.05	0.06
<i>Number of observations</i>	662	694	694	654	664

**Notes:** [1] Standard errors in brackets. Bold-face denotes significant at 10 per cent level, starred-bold at 5 percent level, double-starred bold at 1 per cent level. [2] In column (1) *Chief executive* is a variable that takes value -1 if chief executive is left wing, 0 if center, 1 if right wing. Column (2) same but uses orientation of largest government party and column (3) that of the 3 main government parties. The column (4) dependent variable measures the proportion of seats of the largest party in government and multiplies it by -1 if the party is left wing, 0 if center and 1 if right wing. Column (5) does the same but is an average across the orientation of each of the 3 main government parties. [3] *Middle (center third)* is a dummy denoting if real (PPP) income is in the centre-third of the sample, *Poorest (bottom third)* is a dummy denoting if it lies in the poorest one-third of the sample. The base category is the top third of incomes. *Freedom* rates political rights on a scale from 1 (least rights) to 7 (most rights). *War* is defined as a civil war of over 1,000 battle deaths per year. *Inequality* is measured by the Gini coefficient. See Appendix 2 for more information about these variables.

**Table B: Political Color and lagged Corruption within 80 Countries: 1975-1997.**

	(1) Chief Executive	(2) Largest Gov't Party	(3) 3 Main Gov't Parties	(4) Largest Gov't Party - Seats	(5) 3 Main Gov't Parties - Seats
<i>Corruption (t-3)</i>	<b>-0.07</b> <b>(0.04)</b>	<b>-0.08*</b> <b>(0.04)</b>	<b>-0.11**</b> <b>(0.04)</b>	<b>-0.05**</b> <b>(0.02)</b>	<b>-0.05**</b> <b>(0.02)</b>
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
<i>Adjusted R<sup>2</sup></i>	<i>0.66</i>	<i>0.69</i>	<i>0.67</i>	<i>0.75</i>	<i>0.74</i>
<i>Number of observations</i>	<i>843</i>	<i>843</i>	<i>843</i>	<i>843</i>	<i>843</i>

**Notes:** [1] Regressions are OLS with country fixed effects. Standard errors in brackets. Bold-face denotes significant at 10 per cent level, starred-bold at 5 percent level, double-starred bold at 1 per cent level. [2] In Column (1) *Chief executive* is a variable that takes value -1 if chief executive is left wing, 0 if center, 1 if right wing. Column (2) same but orientation of largest government party and column (3) that of the 3 main government parties. Column (4) dependent variable measures the proportion of seats of the largest party in government and multiplies it by -1 if the party is left wing, 0 if center and 1 if right wing. Column (5) does the same but is an average across the orientation of each of the 3 main government parties. See Appendix 2 for more information about these variables. [3] *Corruption* is the ICRG corruption measure. *(t-3)* indicates the variable has been lagged by three years. See the Appendix for more information.

**Table C1: Corruption Perceptions and Ideology**

<b>Dependent Variable: Right Wing Voter</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
<i>Perception of Corruption</i> - Few officials	-0.03 (0.03)	-0.04 (0.03)	-0.01 (0.03)
- Most officials	<b>-0.07**</b> <b>(0.03)</b>	<b>-0.09**</b> <b>(0.03)</b>	-0.04 (0.03)
- Almost all officials	<b>-0.13**</b> <b>(0.03)</b>	<b>-0.14**</b> <b>(0.03)</b>	<b>-0.07*</b> <b>(0.03)</b>
<i>Captured</i>			<b>-0.13**</b> <b>(0.01)</b>
<i>Personal Income Quintile</i> - Second		<b>-0.03*</b> <b>(0.02)</b>	<b>-0.03*</b> <b>(0.02)</b>
- Third		-0.004 (0.02)	-0.01 (0.02)
- Fourth		<b>0.05*</b> <b>(0.02)</b>	<b>0.04</b> <b>(0.02)</b>
- Fifth (top)		<b>0.13**</b> <b>(0.02)</b>	<b>0.13**</b> <b>(0.02)</b>
<i>Work Status</i> - Unemployed		-0.01 (0.02)	-0.01 (0.02)
- Self employed		<b>0.10**</b> <b>(0.02)</b>	<b>0.10**</b> <b>(0.02)</b>
- Retired		<b>-0.06**</b> <b>(0.02)</b>	<b>-0.06**</b> <b>(0.02)</b>
- Student		<b>0.05</b> <b>(0.03)</b>	0.04 (0.03)
- Housewife		<b>0.09**</b> <b>(0.02)</b>	<b>0.08**</b> <b>(0.02)</b>
<i>Marital status</i> - Married		0.02 (0.02)	0.02 (0.02)
- Divorced		0.002 (0.03)	-0.01 (0.03)
- Separated		-0.01 (0.04)	-0.02 (0.04)
- Widowed		<b>0.07**</b> <b>(0.03)</b>	<b>0.07*</b> <b>(0.03)</b>
Age		<b>-0.01**</b> <b>(0.002)</b>	<b>-0.01**</b> <b>(0.002)</b>
Squared Age		<b>1e-4**</b> <b>(3e-5)</b>	<b>1e-4**</b> <b>(3e-5)</b>
Male		<b>0.03**</b> <b>(0.01)</b>	<b>0.03**</b> <b>(0.01)</b>
Age Finished School		<b>-5e-3**</b> <b>(8e-4)</b>	<b>-4e-3**</b> <b>(9e-4)</b>
<i>Country Dummies</i>	Yes	Yes	Yes
No of Observations	51,810	37,278	34,961
Pseudo R <sup>2</sup>	0.02	0.02	0.02

**Note:** [1] Regressions are ordered probits. Standard errors in parentheses. Bold is significant at 10% level; Single-star bold at 5% level; Double-star bold at 1% level. Cut points (standard errors) for col. (1) are: c1=-1.6 (0.1), c2=-1.2 (0.1), c3=-0.8 (0.1), c4=-0.5 (0.1), c5=0.4 (0.1), c6=0.7 (0.1), c7=1.0 (0.1), c8=1.4 (0.1), c9=1.6 (0.1). Cut points for col. (2): c1=-2.1 (0.1), c2=-1.8 (0.1), c3=-1.4 (0.1), c4=-1.1 (0.1), c5=-0.3 (0.1), c6=0.1 (0.1), c7=0.4 (0.1), c8=0.8 (0.1), c9=1.0 (0.1). Cut points for col. (3): c1=-1.4 (0.1), c2=-1.1 (0.1), cut3=-0.7 (0.1), c4=-0.4 (0.1), cut5=0.5 (0.1), cut6=0.9 (0.1), c7=1.2 (0.1), c8=1.5 (0.1), c9=1.8 (0.1) [2] Dependent variable is answer to question: *In political matters, people talk of 'the left' and 'the right'. How would you place your views on this scale, generally speaking?* Interviewer shows scale with numbers 1 to 10 written down with the word 'Left' below 1 and 'Right' below 10 [3] *Perception of Corruption* is a set of dummies corresponding to answers to the question: *How widespread do you think bribe taking and corruption is in this country?* 1. *Almost no public officials are engaged in it* 2. *A few public officials are engaged in it* 3. *Most public officials are engaged in it* 4. *Almost all public officials are engaged in.* [4] *Captured* is a dummy equal to 1 when respondent answers the second option to the question: *Generally speaking, would you say that this country is run by a few big interests looking out for themselves, or is run for the benefit of all the people?* 1. *Run for all the people* 2. *Run by a few big interests.*

**Table C2: Corruption Perceptions and Economic Attributes of Ideology**

<i>Dep. Variable has L (R) extension if higher numbers mean more Left (right)</i>	Needs/Poverty			Merits	Ownership
	(1) Not Lazy-L	(2) Escape-L	(3) Govern. Poor-L	(4) Fair Pay-L	(5) Business Own-L
<i>Perception of Corruption</i> 1= almost no official 4= almost all officials	<b>0.15**</b> <b>(0.03)</b>	<b>0.25**</b> <b>(0.03)</b>	<b>0.33**</b> <b>(0.04)</b>	<b>0.14**</b> <b>(0.03)</b>	<b>0.05**</b> <b>(0.02)</b>
Personal Controls	No	No	No	No	No
No of Observations	52,446	58,180	55,103	58,810	56,873
Pseudo Rsq	0.098	0.111	0.105	0.079	0.041

	(1b)	(2b)	(3b)	(4b)	(5b)
<i>Perception of Corruption</i> 1= almost no official 4= almost all officials	<b>0.17**</b> <b>(0.04)</b>	<b>0.26**</b> <b>(0.04)</b>	<b>0.37**</b> <b>(0.04)</b>	<b>0.13**</b> <b>(0.02)</b>	<b>0.05*</b> <b>(0.02)</b>
Personal Controls	Yes	Yes	Yes	Yes	Yes
No of Observations	37,864	43,673	39,995	44,392	41,184
Pseudo Rsq	0.087	0.110	0.114	0.092	0.049

**Note:** [1] Name of dependent variable has L (R) extension if higher numbers mean more Left (Right) [2] All regressions are Ordered Probits and include country dummies [3] Standard errors in parentheses [4] Single-starred bold-face at 5 per cent level; Double-starred bold face at 1 percent level. [5] *Perception of Corruption* is the cardinal version of the question defined in the note to Table C1. [6] Dependent variables are the answers to the questions:

Now I'd like you some questions about the problem of poverty, in this country and in other countries:

**Column (1)** Why, in your opinion, are there people in this country who live in need? Here are two opinions: which comes closest to your view? 1. They are poor because of laziness and lack of willpower, or 2.They are poor because society treats them unfairly.

**Column (2)** In your opinion, do most poor people in this country have a chance of escaping from poverty, or there is very little chance of escaping? 1. They have a chance or 2. There is very little chance.

**Column (3)** Do you think that what the government is doing for people in poverty in this country is about the right amount, too much, or too little? 1. Too much or 2. About the right amount, or 3. Too little.

**Column (4)** Imagine two secretaries, of the same age, doing practically the same job. One finds out that the other earns considerably more than she does. The better paid secretary, however, is quicker, more efficient and more reliable at her job. In your opinion, is it fair or not fair that one secretary is paid more than the other? 1. Fair or 2. Not fair.

**Column (5)** There is a lot of discussion about how business and industry should be managed. Which of these four statements comes closest to your opinion?

1. The owners should run their business or appoint the managers
2. The owners and the employees should participate in the selection of managers.
3. The government should be the owner and appoint the managers
4. The employees should own the business and should elect the managers.

**Columns (1b-5b)** run the same set of regressions, but also controlling for the identical set of personal characteristics included in Table C1. See Appendix 2.



## Appendix 2: Data Definitions and Sources

### Country Level Surveys and Variables

#### **Survey Descriptions**

The ideology variables *Right*, *Left* and *Center*, are defined by Beck *et al* in two steps. First, they identify the party of key political players. Then they asked whether the orientation of a party (regarding greater or less state control of the economy) was immediately obvious from the name. Otherwise they checked sources, including *The Europa Handbook* and Banks' *Political Handbook of the World*. Information on party orientation comes from *Political Parties of Africa and the Middle East: A Reference Guide* (1993), *Political Parties of Eastern Europe, Russia and the Successor States: A Reference Guide* (1994) and the Web site maintained by Agora Telematica ([www.agora.stm.it/elections/parties.htm](http://www.agora.stm.it/elections/parties.htm)). Countries: Afghanistan, Albania, Algeria, Angola, Argentina, Australia, Austria, Bahamas, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bolivia, Botswana, Brazil, Bulgaria, Burkina Faso, Cambodia, Canada, Cape Verde, Central African Republic, Chile, China, Colombia, Comoro Islands, Congo, Costa Rica, Croatia, Cuba, Cyprus, Czech, Denmark, Dominican Republic, Ecuador, El Salvador, Ethiopia, Fiji, Finland, France, Gambia, East Germany, West Germany, Georgia, Ghana, Greece, Grenada, Guatemala, Guinea, Guinea Bissau, Guyana, Haiti, Honduras, Hungary, Iceland, India, Ireland, Israel, Italy, Jamaica, Japan, Kazakhstan, Korea, Laos, Latvia, Lebanon, Lesotho, Liberia, Lithuania, Luxembourg, Macedonia, Madagascar, Malawi, Mali, Malta, Mauritius, Mauritania, Mexico, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Norway, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Russia, Senegal, Sierra Leone, Slovakia, Slovenia, Solomon Islands, South Africa, USSR, Spain, Sri Lanka, St Lucia, Sudan, Suriname, Sweden, Switzerland, Taiwan, Tajikistan, Tanzania, Thailand, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, USA, Uganda, Ukraine, United Kingdom, Uruguay, Uzbekistan, Vanuatu, Venezuela, Vietnam, Western Samoa, Yemen, Yugoslavia, Zambia.

#### **Variables**

*Right*: Parties on the right are those with the terms “conservative” or “Christian democratic” in their names, or are labeled right-wing in their sources.

*Left*: Similarly, parties classified as left if their names reveal them to be communist, socialist, or social democratic or if the sources label them as left-wing.

*Center*: Similarly, centrist parties are those called centrist by their sources or if their proposed policies can best be described as centrist (e.g., because the party advocates strengthening private enterprise but also supports a redistributive role for government).

*Chief Executive*: A discrete variable that refers to the political orientation of the party of the chief political decision-maker in the country. Assigned three numerical codes: -1 if the *Chief Executive* is left wing, 0 if center and 1 if right wing.

*Largest Government Party*: A discrete variable that refers to the political orientation of the Governing party with most seats in the legislature. It is assigned three numerical codes: -1 if the largest government party is left wing, 0 if center and 1 if right wing.

*Largest Government Party (by seats)*: A continuous variable capturing the political orientation of the largest Governing party as above, but now weighted by the proportion of seats it occupies in the legislature.

*Three Main Government Parties*: The political orientation of the government parties with the first, second and third largest number of seats in the legislature, obtained by taking a simple average across the political orientation of each of these parties. The government parties are assigned three numerical codes: -1, 0 and 1 depending on whether they are left, center or right-wing assigned equal weights.

*Three Main Government Parties (by seats)*: A continuous variable capturing the political orientation of the three largest government parties as above, but where each one is weighted by the number of seats it occupies in the legislature.

*Freedom*: A scale from 1 to 7 measuring the extent of political rights. Nations with a rating of 7 come closest to the ideals of free and fair elections. Those who are elected rule, there are competitive parties or other political groupings, and the opposition plays an important role and has actual power. Nations with the lowest numbers have systems ruled by military juntas, religious hierarchies, or autocrats. A

rating of 1 means political rights are virtually nonexistent. The data is produced in an annual survey produced by regional experts, consultants, and human rights specialists. Source Freedom House.

*War:* A dummy variable equal to one when there is a civil war in that country/year. A civil war is defined as a domestic conflict involving of over 1,000 battle deaths per year. From Doyle and Sambanis (2000).

*Inequality:* The Gini Ratio, obtained from the Deininger and Squire (1996) World Bank “high quality” data set.

*Corruption:* The International Country Risk Guide (ICRG) corruption index has been produced annually since 1982 by Political Risk Services, a private international investment risk service. It is measured on a 0 to 6 scale. The index is based on the opinion of experts, and intends to capture the extent to which “high government officials are likely to demand special payments” and “illegal payments are generally expected throughout lower levels of government” in the form of “bribes connected with import and export licenses, exchange controls, tax assessments, police protection, or loans”.

*GDP per head:* GDP per capita, in 1992 US\$, from the World Development Indicators of the World Bank.

### Individual Level Surveys and Variables:

#### **Survey Descriptions**

World Values Survey and European Values Survey (Third wave: 1995-7). The Combined World Values Survey is produced by the Institute for Social Research, Ann Arbor, MI, USA. The series is designed for cross-national comparison of values and norms. Both national random and quota sampling were used. All of the surveys were carried out through face-to-face interviews, with a sampling universe consisting of all adult citizens, aged 18 and older. The countries surveyed in the 1995-7 wave which have data on both corruption and ideology include: Argentina, Armenia, Australia, Azerbaijan, Bangladesh, Belarus, Bulgaria, Bosnia-Herzegovina, Brazil, Chile, Colombia, Croatia, Dominican Republic, Estonia, Finland, Georgia, Germany, India, South Korea, Latvia, Lithuania, Macedonia, Mexico, Moldova, Nigeria, Norway, Peru, Philippines, Poland, Puerto Rico, Russia, Moscow, Slovenia, South Africa, Spain, Andalusia, Basque, Galicia, Valencia, Sweden, Switzerland, Taiwan, Turkey, Ukraine, United States of America, Uruguay, Venezuela, Serbia-Montenegro.

#### **Variables**

*Right Wing Voter:* Dependent variable is the answer to the question “*In political matters, people talk of “the left” and “the right”. How would you place your views on this scale, generally speaking?*” Interviewer shows scale with numbers 1 to 10 written down with the word “Left” written below the number 1 and the word “Right” below the number 10 (World Values Survey).

*Perception of Corruption:* A categorical variable that is the answer to the question “*How widespread do you think bribe taking and corruption is in this country?*”. The answers are (1) *Almost no public officials are engaged in it.* (2) *A few public officials are engaged in it.* (3) *Most public officials are engaged in it.* (4) *Almost all public officials are engaged in it* (World Values Survey).

*Captured:* A dummy equal to 1 when the respondent gives the second answer to the question: “*Generally speaking, would you say that this country is run by a few big interests looking out for themselves, or that it is run for the benefit of all the people?*” (1) *Run for all the people* (2) *Run by a few big interests* (World Values Survey).

*Personal Income Quintile:* This heading refers to a set of 4 dummy variables which take the value 1 depending on which income quintile the respondent’s family income belongs to. The base category is the lowest income quintile (World Values Survey).

*Work Status:* A set of dummy variables taking the value 1 depending on the respondent’s employment status: “Unemployed”, “Self-employed”, “Retired”, “Student” or “Housewife”. The base category is “Employed” (World Values Survey).

*Marital Status:* A set of dummy variables taking the value 1 depending on the respondent’s marital status: “Married”, “Divorced”, “Separated” or “Widowed”. The base category is “Never Married” (World Values Survey).

*Age:* The respondent’s age in years (World Values Survey).

*Male:* A dummy variable equal to 1 if the respondent is male and 0 otherwise (World Values Survey).

*Age Finished School:* The age at which the respondent finished full-time education (World Values Survey).

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