

**“Interests versus Institutions as Determinants of Property Rights:
Evidence from Survey Data.”**

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Abstract: We offer the first firm-level, quasi-experimental evidence on the determinants of property rights protections. Unlike research that uses country-level aggregates to draw inferences about the determinants of secure property rights, we analyze survey responses of over 5000 firm owners from 53 countries. Another innovation is that we use a quasi-experiment “differences-in-differences” model to establish causality and hold firm- and country-level fixed effects constant. We find that the political partisanship of the government in power strongly affects individual perceptions of property rights: when the government is right-leaning and conservative, firm owners are more likely to perceive that their property rights are secure. We find little support for the claim that formal political institutions, such as the number of checks and balances (veto players) in a system, improve property rights perceptions. Overall, our results indicate that firm owners’ beliefs about the security of property rights are highly responsive to changes in government partisanship.

Introduction

The literature on economic growth has reached a near consensus that the institutions of limited government are positively correlated with economic growth (Knack and Keefer 1995; Mauro 1995; Hall and Jones 1999; Acemoglu, Johnson and Robinson 2001, 2002; Easterly and Levine 2003; Dollar and Kraay 2003; and Rodrik, Subramanian, and Trebbi 2004).¹ We argue that institutions are less important to property rights than are the interests of partisan politicians, who can bend institutions to their will. Our data suggest that business leaders perceive property rights to become more secure when right-leaning conservative parties take power, but that these perceptions are not sensitive to changes in the number of checks and balances in a political system.

We establish causality by way of a research design that offers two innovations over existing work. First, we assess the impact of political factors (partisan policies and institutions) on *individual* perceptions of property rights. This distinguishes our paper from work that evaluates the impact of policies and institutions on remote economic aggregates, such as per capita income growth. Economic growth is not directly affected by property rights; rather, growth is a consequence of the aggregate behaviors of individual economic agents, whose perceptions of property rights and other conditions guide their decisions to engage in productive activity, to invest, and to innovate. Improvements in cross-national survey data allow us to provide a more direct test of this micro-level causal mechanism. We draw upon the responses of firm owners to survey questions about property rights protections reported in the World Bank's "World Business Environment Survey" (WBES), which assesses the state of the policy and institutional environment for private enterprise in 80 nations. The stated purpose of the survey is

¹ For dissenting views, see Glaeser et al 2004, and Gourevitch 2006.

to identify the features of a country's investment climate that matter most for productivity and growth from the perspective of private sector actors. The WBES employs a common survey instrument, administered to a representative sample of at least 100 firms in each country, to measure investment climate conditions. The standardized approach allows us to draw consistent cross-national inferences from the data.

Our second innovation is to employ a pre-test, post-test quasi-experimental research design to establish the causal impact of political factors on property rights perceptions.² We make use of a multi-period feature of several WBES questions to (1) observe a pre-treatment ("pre-test") measure of perceptions in both an experimental and a control group; (2) administer the treatment (in our case, a change in government partisanship or a change in the relevant institution) to the experimental group while withholding it from the control group; and (3) compare the pre-test and post-test changes in perceptions for both groups. This research design allows us to get closer to causal inference than do papers that lack a pre-treatment assessment of the dependent variable.

Our micro-level quasi-experiment thus provides a direct test of partisan and institutional theories and reduces the identification and inferential difficulties associated with current work on institutions (Przeworski 2004a, 2004b; Glaeser et al 2004). For example, the problem of endogeneity in cross-country growth regressions (i.e. fast growing economies may choose better institutions) falls away since it is unlikely that firm owners' survey responses "cause" institutions or other political outcomes. While perceptions of the business environment may indeed influence political outcomes such as the partisan orientation of the government, the use of a

² Ayyagari, Demirguc-Kunt, and Maksimovic (2006) use the WBES to evaluate institutional theories but their research design does not attempt to gauge the effects of institutional reform on individual perceptions.

recollection assessment of the dependent variable (rather than a true pre-treatment assessment of managers' opinions) ensures that perceptions did not directly cause the political treatment effect. Our general approach in this paper is to view changes in partisanship prior to the survey as exogenous shocks. For the skeptical audience, we control for potentially confounding variables, such as economic performance, to which partisanship changes may be endogenous. Time invariant determinants of political outcomes will be swept out of the error term as a result of our differences-in-differences estimation technique. Furthermore, examining the impact of politics on individual perceptions by way of a multi-period quasi-experiment reduces the omitted variable bias that results when economies that are different for a variety of unobserved or unmeasured reasons differ both in their institutions and in their macroeconomic performance. Nonetheless, our approach remains consistent with partisan and institutional theories in the literature. We differ only in that we test these arguments at the individual level of analysis using a quasi-experimental design. Our findings are thus relevant to the wider body of literature and suggest new avenues for research.

The results we report are strongly supportive of a partisan, interests-based theory of property rights. In particular, we show that transitions to more conservative governments are associated with improved perceptions of property rights among firm owners and business managers. Substantively, the predicted probability that a firm owner reports an improvement in property rights increases by up to 5.6 percent in countries that elect right-leaning executives as opposed to those electing left-leaning executives. This result holds up to a battery of robustness tests. We also find some support for the view that “democracy” improves property rights – but only when “subjective” indicators of democratic institutions are analyzed. We are reticent to draw a causal inference from these results because subjective indicators, such those from the

Polity IV and Freedom House datasets, have been shown to be better measures of policies and recent election outcomes than institutions (Glaeser et al 2004). Indeed, when we regress changes in property rights perceptions on changes in objective measures of institutional constraints, such as the number of checks and balances in a political system, we find no evidence of a causal relationship.

The plan of the paper is as follows. In section 2, we survey work on partisan and institutional determinates of economic policy and economic outcomes, highlighting some common shortcomings. Section 3 presents our research design and section 4 describes our data and empirical models. Section 5 contains results and Section 6 concludes.

2. Partisan and Institutional Sources of Property Rights

Political economists have documented consistent partisan differences in economic policy, with left parties striving to reduce unemployment and right parties focusing primarily on controlling inflation (Hibbs 1977, 1987; Keech 1980; Beck 1982; Alesina and Sachs 1988). For example, Hibb's (1987) analysis of postwar U.S. data showed that unemployment and the income share of the wealthy relative to the poor were both significantly lower under Democratic presidents than under Republicans, while the growth rate of real output was significantly higher. These patterns are still evident today (Bartels and Brady 2003; Bartels 2004). Sharp alterations in policies and performance imply that partisan changes in government have profound economic effects, not only in the United States (McCarty, Poole, and Rosenthal 2006), but elsewhere (Alesina, Glaeser and Sacerdote 2001; Kenworthy and Pontusson 2005).

Partisan models focus upon differences in economic policies and outcomes that result from the constituency and ideological orientation of different governments (Persson and Tabellini 2000). The differing policies and outcomes of left and right governments are based

upon strategies to forge winning electoral coalitions. Party elites choose these alternative policies because they have different distributional consequences that favor a left coalition of low-skilled workers, the poor, plus middle-class elements or a right coalition of capitalists, business owners, and high-skilled workers. These divergent partisan strategies are more or less constrained by international and domestic institutions and by increasing exposure to international finance and goods markets (Alesina, Roubini and Cohen 1997; Boix 1998; Garrett 1998; Iversen 1999).

We extend this line of reasoning to argue that partisanship also influences the security of property rights. When economic agents believe that politicians of a certain party are committed to markets, the security of property rights is likely to increase (Przeworski 1991). Partisan governments may invest in costly signals to convince private agents that they will not deviate from policies to improve the economy and strengthen property rights (Diermeier et al. 1997). By the nature of their coalitions and pro-market ideology, right parties are likely to pursue policies that preserve private property rights while left parties formulate and implement policies that are more apt to infringe on these rights, especially those of business firms, which do not represent their traditional constituency. Indeed, scholars have found that party positions, gleaned from party manifestos, fall primarily along a single, left-right dimension that reflects positions on government intervention in the economy and respect for private property (Gabel and Huber 2000; Laver, Benoit, and Garry 2003).

In party manifestos, right parties champion free enterprise capitalism, the superiority of the market over state control systems and the security of private property rights (Budge et al 2001). They tend to support personal enterprise and initiative and markets free of all but essential government involvement. Right parties are also generally opposed to increases in government expenditures for social services such as unemployment insurance, health, housing,

and social security and, on the macroeconomic front, favor low inflation and low taxes. Overall, this collection of orthodox policy preferences reflects an overriding respect for property rights and individual economic liberty, with government limited to ensuring the security of those rights.

Left parties, by contrast, are more likely to formulate and implement legislation and regulations that infringe on the private property rights of individuals and firms. Left parties typically favor redistribution towards the working class, the unemployed, and trade unions. Left parties also see a general need for government intervention into the economic system and may advocate control over prices, wages, and profits. They may be amenable to government ownership, partial or complete, of productive assets. Left parties are also more likely to introduce, maintain or expand social services (unemployment insurance, health, housing, and social security) and seek special protection for underprivileged. From taxation for redistributive purposes to environmental takings, left parties are more likely than right parties to adopt policies that reduce the security of private property rights. We thus expect business leaders to perceive that property rights are more protected when right parties are in power than under left parties.

This partisan property rights hypothesis has received little attention in the empirical literature. Fyre (2004) finds support for the argument that partisanship affects property rights with evidence from surveys of business elites in Russia in 1998 and 2000. To our knowledge, however, more extensive tests have not been undertaken.

By contrast, there is a voluminous literature on the impact of political institutions on economic growth. Arguments linking political institutions, broadly defined, to growth presumably work through property rights perceptions, but the conceptual and theoretical links are not well developed (Glaeser et al. 2004; Woodruff 2006). Precisely which political institutions provide and protect property rights is difficult to discern from the literature. While

North and Weingast (1989) emphasize institutions that constrain political authority (an independent legislature to check and balance the power of the crown), Acemoglu, Johnson, and Robinson (2002) cast a wider net, attributing effective property rights to a “cluster” of formal and informal institutions. The basic logic is that democracy and other checks on government impose constraints on government opportunism and secure property rights. With such political institutions in place, investment in physical capital and human capital, and therefore economic growth, are expected to follow.

Institutions are supposed to be durable, constraining, and independent of government policies. But Glaeser et al. (2004) show that the measures of institutions used in the growth literature are highly volatile, uncorrelated with constitutional constraints, and closely correlated with short-run government policies and election outcomes. Glaeser et al (2004) examine three measures of institutions commonly used in the literature: a survey indicator of institutional quality from the International Country Risk Guide (ICRG); an index of survey assessments of government effectiveness collected by Kaufmann, Kraay, and Mastruzzi (2003); and Polity IV data on “constraints on the executive” and “democracy” from Jagers and Marshall (2002). They show that the survey-based measures are clearly *ex post* assessments of government policies, with dictatorships that respect property rights (e.g. Singapore) scoring near the top of the rankings for “institutional quality,” and governments that change policies receiving large changes in their scores. While the Polity IV data are supposed to capture durable aspects of the institutional environment, in practice the codings are highly responsive to changes in electoral outcomes, fluctuating greatly with the perceived fairness and competitiveness of the most recent election.

This evidence casts doubt on the proposition that institutions, as currently measured in the literature, reflect any durable constraints on government authority. If they are indicators of policy choices and outcomes, they cannot be used to establish a causal role for institutions (Woodruff 2006). Moreover, the focus on institutions obscures the possibility that partisan politicians can manipulate the political process to their advantage. Stasavage (2002, 2003) critiques North and Weingast (1989) by showing that the limits on the crown came not only from formal changes in Parliamentary oversight in 1688, but from the goals of the particular majority that dominated Parliament at that time; he also shows that a different majority led to a different outcome in France. Similarly, Rajan and Zingales (2003) acknowledge the importance of Parliament wresting power from the Crown, but argue that Parliament's underlying power may have come from the rise of the independent gentry.

Both Stasavage and Rajan and Zingales raise the possibility that it was not the institution but the constituency backing it that mattered. Even Acemoglu and Robinson (2005a) have moved from a strict institutional explanation to argue that a combination of power through formal *de jure* political institutions and informal *de facto* sources preserves the position of the social elite. Given that "interests" may be confused for "institutions," the independent effect of institutions in securing property rights has not been demonstrated empirically (Gourevitch 2006; Przeworski 2004b).

In this paper, we attempt to parse out the independent influence of interests and institutions on property rights. "Interests" relate to the policy goals of different partisan constituencies while "institutions" are the deeper and less volatile political constraints that limit the power of the government to violate property rights. We develop a research design that

allows us to directly measure property rights and to establish the relative causal importance of both partisan policies and institutions.

3. Research Design

The typical approach to estimating the impact of institutions or policies is to regress an aggregate economic outcome (per capita income growth) on a political institution (democracy), policy (low inflation, openness), and observe the correlation. Other work takes an historical, instrumental variable approach (dead settlers, legal origins) to deal with the possibility that economic performance causes institutions, or that institutions are influenced by some omitted variable (Acemoglu, Johnson, and Robinson 2001; Engerman and Sokoloff 2000; Glaeser and Shleifer 2002). Beyond endogeneity, however, there is the problem of identifying which covariates have a causative impact. This problem arises because measures of institutions are highly correlated with one another and with other covariates, making it difficult to separate the effect of variables (Woodruff 2006; Acemoglu and Johnson 2005b). Estimating the impact of complex institutions on highly aggregate economic outcomes has always been fraught with conceptual and statistical problems (Levine and Renelt 1992). The development of measures for institutions based on the judgments of “experts” has added new difficulties. These subjective indicators correlate well with economic performance while those based on observable “formal” features of institutions do not, which raises the possibility that the subjective indicators may simply reflect recent performance (Aron 2000; Woodruff 2006).

Our approach avoids these problems by focusing on a previously ignored step in the causal logic: the connection between politics (institutions or partisan interests) and individual perceptions of property rights. We assess the impact of institutions and partisanship directly on individual perceptions and beliefs, rather than on remote economic aggregates. If certain

political institutions encourage economic growth via greater investment in physical and human capital, then we should observe the impact of institutional improvements directly on firm owners' perceptions of the protection of property rights. Likewise, if policies reflect partisanship, then individual perceptions of the security of property rights should follow changes in party control of government.

Figure 1 diagrams the causal pathway modeled in institutional and partisan theories of property rights. Whether it is institutions or partisanship that matters to property rights, both forces work through individual beliefs and behaviors. These theories begin with a representative agent who perceives property rights to be more or less secure as a function of the institutional and policy environment. The agent's perceptions shape his/her individual investment decisions which, in aggregate, contribute to an economy's overall performance.

While the typical research design is to regress aggregate economic growth on institutions – and thereby skip over several important stages in the causal process – our approach is to directly test the impact of institutions and partisanship on individual perceptions of property rights. Our approach is thus closest in spirit to McMillan and Woodruff (2002), Johnson, McMillan and Woodruff (2002), and Besley (1995) who present micro-level results that show a link between property rights institutions and the behavior of entrepreneurs, as measured by profit reinvestment rates, and the number and distance of trading relationships between firms. In this approach, firm behavior indirectly *reveals* the impact of institutions on firm perceptions. Our research, by contrast, ascertains the effect of institutions (and partisanship) directly on the perceptions of individual firm owners.

Another innovation in our research design is to employ a pre-test, post-test quasi-experimental research design (also known as a “differences-in-differences” estimator) to

establish the causal impact of institutional or partisan changes on perceptions and beliefs. We make use of a multi-period feature of several WBES questions to generate a quasi-panel dataset consisting of two time periods for each of over 5,000 respondents. Using these data, we take a pre-treatment measurement of perceptions in both an experimental and a control group. We then administer our treatments (i.e., changes in government partisanship and institutions) to the experimental group but withhold it from the control group. Finally, we compare the pre-treatment and post-treatment changes in perceptions for both groups to identify the causal impact of our treatments.

4. Data and Models

A fundamental obstacle to measuring the determinants of property rights is that property rights – unlike investment or GDP growth – are not directly measurable. The best that researchers can do is to create indicators that serve as analogies to the construct. The use of existing country-level indicators, such as the Heritage Foundation and International Country Risk Guide (ICRG) measures, is subject to two important problems. First, these operationalizations of property rights are likely tainted by the subjectivity and biases of the analyst who devises them; perhaps more problematic, it is often the case that we do not know the specific criteria used to generate these ratings. Second, the experts who rate the countries often have no direct involvement in the local economy. This results in a troubling empirical design in which the independent variable of interest (the “treatment”) – usually some political institution or government policy – never actually “treats” the subjects of interest.

Disaggregated individual assessments generated by actual participants in the local economy make superior indicators of property rights because they alleviate many of the sources of bias inherent in county-level measures. Detailed surveys such as the WBES provide

substantial information about the respondent that allows researchers to control for potential biases based on the characteristics of the individual and their environment. Survey responses by individual actors are also more likely to reflect the reality of economic life, improving their reliability and ensuring that an actual treatment effect may be estimated. Finally, surveys such as the WBES provide multiple responses in each country, which greatly increases the degrees of freedom. To this end, we turn to the WBES for survey-based indicators of property rights. Concluded in 2000, the WBES assesses the opinions of over 5,000 firm owners and managers in 53 countries.

The WBES survey question we model measures managers' confidence in the contract and property rights in each of the countries in our sample. The survey asked managers to respond to the following inquiry: *"I am confident that the legal system will uphold my contract and property rights in business disputes. To what degree do you agree with this statement?"* The question solicits separate responses in reference to two distinct points in time: "now" and "3 years ago." Our methodological approach exploits this time distinction in order to create a quasi-panel dataset consisting of two periods. Responses to the "now" and "3 years ago" questions varied along the following ordered scale: 1=fully disagree, 2=disagree in most cases, 3=tend to disagree, 4= tend to agree, 5=agree in most cases, 6=fully agree.³ Using these responses, we construct the variable Δ PROPERTY RIGHTS, which measures the change in property rights perceptions of each manager from "3 years ago" (approximately 1997) to the year of the survey ("now," or 2000). We employ Δ PROPERTY RIGHTS as the dependant variable in models estimating the impact of changes in partisanship and institutions. The variable MEAN

³ To simplify the interpretation of the results, this ordering represents a reversal of the original ordering as conducted in the survey.

PROPERTY RIGHTS measures the country mean of “now” and “3 years ago” and provides an indication of the overall assessment of the property rights environment.

It is important to note that although the “3 years ago” responses provide only a subjective, “recollection” assessment of property rights, it is precisely this individual subjectivity among business leaders that we are interested in capturing. Our intent is to ascertain how partisan alignments and political institutions affect individual *perceptions* of the business environment. The recollection assessment is extremely useful because it provides a baseline assessment of perceptions “prior to” the treatment, allowing us to difference the responses (“now” vs. “3 years ago”) and model the difference as a function of changes in political interests and institutions over the same period. Differencing effectively cancels out all time-invariant omitted variables, reducing bias in the estimates. Of course, an ideal dataset would provide actual survey results from 1997 and 2000 for the same set of managers, but multi-period cross-national surveys with identical respondents do not currently exist. The second best solution is the recollection response, as it seems logical to assume that Δ PROPERTY RIGHTS will reflect notable changes in manager’s perceptions of the protection of property rights in their country.

The variables MEAN PROPERTY RIGHTS and Δ PROPERTY RIGHTS exhibit significant variation both across and within countries. **Table 1** gives overall summary statistics and **Table 2** shows the country average summary statistics for the variables used in our core property rights models. The average value of MEAN PROPERTY RIGHTS is 3.67, which indicates that the average firm is closest to the “tend to agree” position that legal system will uphold contract and property rights. Portugal is closest to this mean with a country average of 3.67; Singapore scores the highest overall (5.37), while assessments of property rights are lowest among managers in Madagascar (2.52). The overall standard deviation of MEAN PROPERTY

RIGHTS is 1.38, the between country standard deviation is .59, and the within country standard deviation is 1.25.

With respect to changes over the three year period of our quasi-experiment, the mean value of Δ PROPERTY RIGHTS (.17) is best represented by Costa Rica (.20). The lowest average value of Δ PROPERTY RIGHTS is -.22 (Moldova), and the highest is 1.00 (Dominican Republic). The overall standard deviation is .81.

Our survey-based measures of property rights show evidence of construct validity, which requires convergent and discriminant validity. Convergent validity exists when a variable correlates strongly with a similar construct; discriminant validity requires differentiation between distinct, yet related, constructs (Trochim 2001). We test for construct validity as follows. First, we measure the correlations between Δ PROPERTY RIGHTS and changes in a related WBES inquiry regarding the overall business environment (Δ HELPFUL GOVERNMENT).⁴ The statistically significant correlation of .25 between Δ HELPFUL GOVERNMENT and Δ PROPERTY RIGHTS indicates convergent validity. Furthermore, we show that the survey responses capture a distinct theoretical construct from country-level variables commonly employed in the literature, providing support for discriminant validity. **Table 3** shows that Δ PROPERTY RIGHTS correlates with the change in the Heritage Foundation's measure of property rights between 1997 and 2000 (Δ HERITAGE FOUNDATION) at just .03. This evidence suggests that country-level expert assessments such as the Heritage Foundation's fail to

⁴ With regard to the "Central/National Government," the WBES asked: "*Please rate your overall perception of the relation between government and/or bureaucracy and private firms on the following scale. All in all, for doing business I perceive the state as:*" 1=Very Unhelpful, 2=Mildly Unhelpful, 3=Neutral, 4=Mildly Helpful, 5=Very Helpful). The variable Δ HELPFUL GOVERNMENT measures the difference between "now" and "3 years ago" responses.

capture the perceptions and beliefs of individual actors who participate in the local economy, making them less useful in measuring the effects of changes in political interests and institutions.

One potential problem with using self reported data is that respondents' perceptions of the business environment may be biased by the recent performance of their firms. Fortunately the WBES concludes by asking managers to report the value of their firm's sales over the previous year. The order of the sales performance question is important: as noted by Beck et al. (2006), the placement of such inquiries at the end of the survey reduces the possibility that responses to the business environment questions are tainted by a need to justify the firms' performance. As we report in our results section, the value of firm sales is often significant and positive: better performance is associated with more favorable impressions of property rights.

The WBES includes several other firm-specific questions that we include as controls. Following Beck et al. (2006), some of our models include dummy variables for government ownership, foreign ownership, exporters, manufacturing, agriculture, construction and services. We also include a measure of the size of the firm: 1=small (5-50 employees); 2=medium (51-500 employees) 3=large (>500 employees), and a variable for the number of competitors. Since our models first difference the data, we hypothesize that the impact of these variables will be minimal, since these time-invariant factors are unlikely to affect changes in perceptions.

Our paper assesses the relative importance of partisan interests and political institutions as determinants of property rights. For an indicator of partisan interests, we turn to data from the *World Bank Database of Political Institutions*, or DPI (Beck et al. 2001), and create the variable Δ PARTISANSHIP. This measure is derived using the following country-level coding of the political orientation of the executive branch: Right = 3, Center = 2, Left = 1. Δ PARTISANSHIP represents the change in the political orientation of the executive between 1997 and 2000.

Following Dutt and Mitra (2005), we employ the DPI coding of the ideological orientation of the chief executive in presidential systems, that of the largest party in government among parliamentary systems, and the average of the two for countries coded as “mixed” (assembly-elected presidentialism).

Firms receiving a treatment under our quasi-experiment are those in countries registering non-zero values for Δ PARTISANSHIP. Positive values (either 1 or 2) indicate a transition over the period toward more right-leaning governments, and negative values (-1 or -2) represent a shift to the left. For example, the value of Δ PARTISANSHIP for Germany is -2, reflecting the difference in the political orientation of the left-leaning government under Gerhard Schroeder (coded 1) in 2000 and that of the Christian Democratic government of Helmut Kohl (coded 3) in 1997. Firms in the control group are those in countries for which Δ PARTISANSHIP equal zero.

Beck et al. (2001) used two types of classification criteria in coding the partisan orientation of executives: the content of party names and judgments by academic and professional commentators. In terms of content, they defined parties as “right-wing” based on whether terms such as “Conservative” or “Christian Democratic” was included in party names. A “left-wing” definition followed from party names with terms such as “Communist,” “Marxist,” “Socialist,” or “Social Democratic.” Failing a clear indication based on content, academic and professional commentator judgments were used. The “centrist” classification followed from no clear criteria based upon party name, thus academic and professional judgment was the primary source. For example, a party was classified as Centrist if it advocated the strengthening of private enterprise but also supported some substantial redistributive role for government. If both name-based and commentator-based criteria could not clearly classify a party into left-wing, right-wing, or centrist category, it was placed in a fourth classification as “Other.”

Given the emphasis on party names and expert opinion in the coding of this variable, a potential concern is that the meaning of “Social Democratic” and “left-wing” and or “Conservative” and “right-wing” varies widely across countries. The comparability of partisanship measures *across* nations is not a problem for our research design, however, because we estimate the effect of *within*-country changes in partisanship on property rights perceptions, not across country differences. Since our treatment (Δ PARTISANSHIP) reflects intra-country notions of “left-wing,” “right-wing,” and “center” as opposed to international definitions of these concepts, we are confident that the DPI partisan measure is suitable for our purposes. Nevertheless, in a robustness test we verify our results by substituting partisan data from Swank (2002), which is available only for OECD countries but is considered to be of high quality.

We also assess the impact of political institutions on individual property rights perceptions. Institutions-based models often highlight how democratic institutions improve property rights. Following Glaeser et al. (2004) and Woodruff (2006), we differentiate between two sets of empirical measures of democracy that will enter as competing treatments to Δ PARTISANSHIP. One set of “soft,” or “informal” indicators gauge the overall level of democracy by way of subjective expert opinion, while a more “formal” set of indicators measure the number of checks and balances in government. The most commonly applied indices in empirical work are informal indicators such as Polity and Freedom House, which are derived through expert assessments of the overall democratic climate. Δ POLITY is the change in logged Polity 2 score that occurs between 1997 and 2000. Δ FREEDOM HOUSE CIVIL LIBERTIES and Δ FREEDOM HOUSE PROPERTY RIGHTS are the changes, 1997 to 2000, in the logged values of the Freedom House Civil Liberties and Political Rights indicators, respectively. See the data appendix for more information about these variables.

Formal indicators of democracy attempt to avoid expert subjectivity and achieve a degree of replicable quantification by considering the number of checks and balances (veto players) in government institutions. Checks and balances are expected to constrain expropriation and therefore to improve property rights. We draw upon the DPI for the variable Δ CHECKS AND BALANCES, which “counts the number of veto players in a political system, adjusting for whether these veto players are independent of each other, as determined by the level of electoral competitiveness in a system, their respective party affiliations, and the electoral rules.” The index yields a minimum score (1) in the absence of an effective legislature, and the score then increases linearly – reaching a maximum of 18 – with the addition of veto points with political preferences closer to those of the opposition.⁵ Our models employ the variable Δ CHECKS AND BALANCES, which represents the difference in logged DPI Checks between 1997 and 2000. We use the log because the degree of constraint checks and balances place on policy change is subject to diminishing marginal returns to the addition of veto players (Tsebelis 2000).

Henisz (2002) develops an alternative index of institutional checks and balances derived from a simple spatial model of the extent to which any one political actor is constrained in future policies. Δ POLITICAL CONSTRAINTS directly measures the feasibility of a change in policy as a function of a change in the structure of a country’s political institutions (veto points). Δ POLITICAL CONSTRAINTS considers the following veto points: executive, lower and upper legislative chambers, where higher values along a continuous range from 0 to 1 indicate more political constraints. The spatial model assumes that the preferences of each of these branches

⁵ In Presidential regimes, the opposition is defined as the largest opposition party; under Parliamentary systems, the opposition equates to the three largest opposition parties.

and the *status quo* policy are independently and identically drawn from a uniform, unidimensional policy space.

The dependent variable in our models is Δ PROPERTY RIGHTS, which represents the change in perceptions of property rights between 1997 and 2000. Our estimations control for variance in firm- and country-level performance over the period, as such variance is likely to influence perceptions as well as the partisan and institutional treatments. Specifically, we estimate the following equation:

$$(Y_t - Y_{t-3})_{ij} = \alpha + \beta_1 (Y_{t-3})_{ij} + \beta_2 (Partisanship_t - Partisanship_{t-3})_j + \beta_3 (Institution_t - Institution_{t-3})_j + \beta_4 Sales_{ij} + \beta_5 Firm_{ij} + \beta_6 (Economy)_j + \varepsilon_{ij} \quad (1)$$

where the subscripts stand for firm i in country j . The dependent variable $Y_t - Y_{t-3}$ is Δ PROPERTY RIGHTS. We include the “3 years ago” response (Y_{t-3}) as an independent variable since the degree to which perceptions can change from the recollection assessment to “now” is a function of the recollection assessment itself.⁶ The change in *Partisanship* represents the difference in the partisanship of the executive branch of government (Δ PARTISANSHIP). The change in institutions refers to our operationalizations of the competing institutional hypothesis. We include formal and informal conceptualizations of democracy, including changes in Polity, Freedom House Political Rights, Freedom House Civil Liberties, Checks and Balances, and Political Constraints 3. As controls, we include the variable $Sales_{ij}$, which represents the log of sales. As a test for robustness, we include $Firm_{ij}$, a series of firm-level variables including

⁶ Due to the bounded nature of the ordered responses, firms with lower recollection scores have more “room” for improvement. The effect of the prior assessment is negative and highly significant in all of our specifications, as expected.

industry characteristics and perceptions of other business constraints; and *Economy*, a vector of country-level macroeconomic variables that may also influence the ways in which the political interests and institutions affect perceptions of property rights.

Since the dependent variable is a discrete, ordered response variable, we estimate the equation with ordered probit models using standard maximum likelihood. We allow that the standard errors cluster within countries to account for the possible correlation of error terms among firms in the same country. This technique maintains the assumption of the independence of the error terms across countries.

Our research design has two distinct advantages. Most importantly, first differencing allows us to implicitly control for time-invariant factors that may also contribute to managers' perceptions, including manager, firm, and country fixed effects, alleviating some sources of omitted variable bias. For example, it is unlikely that factors such as prevailing cultural attitudes among businesspersons toward government, or country characteristics such as legal origin, location, wealth, or religion will influence *changes* in perceptions between 1997 and 2000. Second, it is likely that changes in political interests and institutions are exogenously determined. That is, it is unlikely that changes in either partisanship or institutions are correlated with the error term of our model. Thus, we effectively eliminate the common concerns of reverse causality: changes in perceptions do not cause changes in political interests or institutions.⁷

Table 4 shows that many of the firm-level variables are significantly correlated with MEAN PROPERTY RIGHTS. For example, managers of government-owned and exporting

⁷ This of course holds by definition: the prior assessment of the firm manager occurs at the same time as the “now” assessment, and so there is no way that the “change” in perceptions could have caused any institutional or partisan effects.

firms are more confident in their property rights than are managers in agriculture and construction. However, with the exception of foreign ownership, these firm-specific characteristics do not correlate strongly with Δ PROPERTY RIGHTS. As hypothesized, first differencing appears to sweep out many of the correlations between our dependent variable and time invariant factors such as firm sector, which increases our confidence in the merits of the research design.

5. Results

Our models estimate how changes in partisanship and institutions affect changes in managers' perceptions of property rights. **Table 5** presents the estimates of equation (1) with the change in property rights perceptions (Δ PROPERTY RIGHTS) as the dependent variable. Each regression reported in **Table 5** controls for recent firm- and country-level performance in the form of SALES, which represents the log of firm sales over the previous year, and GDP GROWTH 1997-2000, a country-level variable. Model 1 represents a baseline estimate of how non-political factors affect managers' perceptions of property rights. The response to the "three years ago" component of the question enters strongly significant and negative. This is unsurprising given that the ordered responses are limited within a range from 1 to 6; thus, the degree to which Δ PROPERTY RIGHTS can change is a function of the "three years ago" response. We find that higher recollection scores, reflecting greater confidence in property rights three years ago, are associated with less positive change in the dependent variable, as expected. GDP GROWTH and LOG SALES also enter significantly with positive coefficients: better performance at both the firm- and country-level increases the probability that a manager will report an improvement in property rights.

Models 2-9 in **Table 5** include our variables of interest, Δ PARTISANSHIP and other variables that proxy for the competing institutional theories. The results are strongly supportive of our interests-based partisan theory of property rights: shifts toward right-leaning executives are associated with higher values of Δ PROPERTY RIGHTS. We also find some support for the view that democracy – when measured by “informal,” perceptions-based indicators – improves property rights: the Δ POLITY, Δ FH CIVIL LIBERTIES, and Δ FH POLITICAL RIGHTS enter with positive coefficients at varying degrees of significance. We give little credence to these results, however, because subjective indicators are poor proxies for the theoretical construct of “institutions,” as discussed above. Furthermore, we find no evidence that changes in the formal institutional variables affect firm owners’ perceptions of property rights. Δ POLCON 3 enters negatively into our model, and the coefficients corresponding to Δ CHECKS AND BALANCES and Δ EXECUTIVE CONSTRAINTS, though positive, are not statistically significant. These conflicting results suggest that the informal indicators do not reflect changes in institutional quality but rather are picking up policy and/or electoral changes that impinge on property rights perceptions. Indeed, there is no support in our data for the checks and balances view of property rights, which holds that institutional constraints on executive power improve property rights by constraining the ability of the executive to expropriate private wealth and/or property. Model 9, which includes all statistically significant variables, does not diminish the robustness of our main results; namely, firm managers in countries that experience shifts toward more conservative governments are more likely to report improvements in property rights.

The estimated coefficients derived by our model are substantively meaningful. Using these estimates, we derive predicted probabilities for the possible values of Δ PROPERTY RIGHTS. **Table 6** demonstrates how various values of Δ PARTISANSHIP affects the

probabilities that a manager's "now" response will differ from his/her "three years ago" score, as predicted by Model 5 of **Table 5**. For example, the estimates imply that the probability that a firm manager reports an improvement in property rights of one point (Δ PROPERTY RIGHTS = 1) is 7.9% when the country experiences a shift from a right- to left-leaning government; a shift from left- to right-leaning, on the other hand, increases the probability of a one point improvement to 13.5%. Given that Δ PROPERTY RIGHTS equals one for just 11% of firms, the difference of 5.6% in the predicted probabilities is substantial.⁸ **Figure 3** provides an illustration of the effects of Δ PARTISANSHIP on the predicted probabilities that Δ PROPERTY RIGHTS equals 1 or -1.

Table 7 reports a second set of estimates, which test the robustness of our primary result that political partisanship has a significant impact on managers' perceptions of property rights. Models 1-7 include as control variables the individual manager's response to separate questions about the business environment. Model 1 includes Δ HELPFUL GOVERNMENT, which represents the difference between the "Now" and "3 years ago" responses to the following: *"Please rate your overall perception of the relation between government and/or bureaucracy and private firms on the following scale. All in all, for doing business I perceive the state as:"* 1=Very Unhelpful, 2=Mildly Unhelpful, 3=Neutral, 4=Mildly Helpful, 5=Very Helpful). Beck et al. (2006) argue that the inclusion of more general questions about the business environment reduces the likelihood that idiosyncratic differences in interpretation or reporting across firms bias the results in favor of country-level treatment effects. As discussed above, Δ HELPFUL GOVERNMENT is highly correlated with Δ PROPERTY RIGHTS and it is also likely to be co-determined. Inclusion of this variable in the model is likely to introduce simultaneity bias, but as

⁸ See Figures 2a and 2b for histograms of Δ PROPERTY RIGHTS and PROPERTY RIGHTS.

Beck et al. (2006) note, the bias should make finding a relationship between Δ PARTISANSHIP and Δ PROPERTY RIGHTS more difficult. It also increases our confidence that we are isolating the effects of partisanship on property rights *per se*, rather than a more general perception of a friendly business environment. Indeed, the magnitude of the coefficient on Δ PARTISANSHIP diminishes slightly in Model 1 as compared to the results in **Table 5**, but the estimate remains positive and significant at above 5% levels of confidence.

Following the logic introduced above, Models 2-7 of **Table 7** include responses to several other WBES questions about the business environment. The “now” response to HELPFUL GOVERNMENT is included in Model 2. Models 3-7 include responses to a WBES question regarding the constraint that the following factors pose to the operation and growth of the firm: Financing, Political Instability, Inflation, Taxes and Regulation, and Corruption.⁹ All these variables enter with the expected negative sign, indicating that the more managers viewed these factors as constraints to their businesses, the less likely they were to report improvements in Δ PROPERTY RIGHTS. However, Δ PARTISANSHIP remains positive and strongly significant to the inclusion of these controls.

Models 8 and 9 include firm-level and country-level controls, respectively. Firm level controls include dummies indicating whether the firm is foreign-owned, an exporter, and the industry in which it operates (the omitted industry category is “Other”). We also include the variable SALES CHANGE, which represents the self-reported percentage change in sales over the past three years. Finally, we include controls for the self-reported number of competitors and size of the firm. As expected, with the exception of EXPORTER, the time-invariant dummies are

⁹ The question reads as follows: “Please judge on a four point scale how problematic are the following factors for the operation and growth of your business:” (1=no obstacle to 4=major obstacle).

not statistically significant. The effect of SALES CHANGE is positive and significant in model 8, but is washed away once we include all relevant controls in Model 10.

The country level control variables introduced in Model 9 include trade openness (IMPORTS + EXPORTS / GDP), financial sector development (M3 / GDP), LOG INFLATION, and LOG GDP / CAPITA, all expressed as country averages over the period 1997-2000. If changes in partisanship are endogenous to economic performance, the introduction of these variables will likely diminish the significance of Δ PARTISANSHIP. This does not appear to be the case, as our primary result holds to the inclusion of these control variables. Furthermore, none of these country-level economic variables are predictive of changes in perceptions of property rights, which further supports the strength of the research design. It appears that the model differences out these country-level characteristics that tend to remain relatively constant over the brief period of our quasi-experiment. Furthermore, we are encouraged by the high pseudo R-squares, which indicate that our models fit the data well. Indeed, the pseudo R-squares all of our estimates that include Δ PARTISANSHIP exceed 7%, which is high for cross-national firm-level studies employing survey data (Beck et al. 2006). In sum, our primary result that the partisan orientation of the government affects property rights perceptions remains robust to the inclusion of a host of controls for managerial perceptions, firm characteristics, and country-level economic variables.

As a second test of robustness, we experiment with alternative coding schemes for our main partisanship variables. **Table 9** presents the results of set of models that explore the effects of alternative treatments on perceptions of property rights. Some studies have questioned the quality of the DPI partisanship data (Dutt and Mitra 2005), and so we construct an alternative to Δ PARTISANSHIP that incorporates OECD data from Swank (2002), which is regarded as high

quality. Model 1 includes Δ PARTISANSHIP (incl. Swank data), which substitutes a transformation of the Swank (2002) data on the percentage of cabinet portfolios held by the left, center, and right parties in OECD countries.¹⁰ The variable Δ PARTISANSHIP (incl. Swank data) correlates at .989 with Δ PARTISANSHIP, which supports the convergent validity of the DPI measure, at least for OECD countries. **Table 8** reports these correlations. The inclusion of the alternative measure for OECD countries in combination with DPI codes for the non-OECD countries in the sample results in estimates consistent with our claim that political partisanship affects property rights perceptions.

We were also concerned that the results may be sensitive to the time period over which we measured partisanship changes. The WBES concluded in 2000, but some firms were interviewed in 1999, and a small number as early as 1998. For those firms questioned earlier than 2000, “3 years ago” may reference years as early as 1995. Thus, we include the variable Δ PARTISANSHIP (2000 vs. 1995), which captures the largest possible interval over which managers may consider in the derivation of Δ PROPERTY RIGHTS. The significance of the variable diminishes slightly in Model 2, but is still positive at better than a 5% level of confidence. Lastly, we estimate the model using the variable Δ PARTISANSHIP avg (1998-2000) vs. avg (1995-1997), a further attempt to capture variance in perceptions of the meaning of “now” and “three years ago.” The variable, which records the difference in average values of partisanship between two three-year intervals, correlates relatively highly with Δ

¹⁰ We code changes in the Swank data such that the variable ranges discretely between -2 and 2, conforming to the range of Δ PARTISANSHIP. For example, if the percentage of seats controlled by right-leaning parties in a particular country in 2000 is greater than the percentage controlled by the right in 1997, and the corresponding loss of seats by the left is greater than the loss of seats by the center, then the variable is coded as equal to 2.

PARTISANSHIP (.85) as reported in **Table 8**. Inclusion of this alternative proxy for changes in political partisanship does not challenge our primary results.

It is possible that the ordered probit results are influenced by the fact that the majority of respondents reported no change in perceptions of property rights; the uneven distribution among Δ PROPERTY RIGHTS could lead to spurious inference. To address these concerns, we construct a binary indicator variable equal to one if Δ PROPERTY RIGHTS is greater than zero; otherwise, the indicator is made equal to zero. We estimate a probit model of this alternative binary dependent variable (with country-clustered errors), and report the results in model 4 of **Table 9**.¹¹ The effects of Δ PARTISANSHIP are consistent with our previous estimates.

Given that such a significant proportion of firm managers reported no change in property rights, we are curious how recent partisanship changes affect the “now” response alone. Models 1-7 reported in **Table 10** use the ordered “now” response as the dependent variable in ordered probit regressions with clustered standard errors. Model 1 shows that Δ PARTISANSHIP is positively correlated with the probability that a manager will report confidence in the protection of property rights.

Models 2-8 control for firm- and country-level variables, yielding some interesting results that were perhaps muted in our prior estimates due to the effects that differencing exudes on time-invariant factors. In particular, government owned and larger firms appear more confident that the government will uphold property rights. As for the economic controls, recent GDP GROWTH remains positive and significant, but the development of the financial sector (M3 / GDP) and development of the economy (LOG GDP/ CAPITA) also correlate with better

¹¹ Our binary indicator equals one for 16% of managers. The remaining 84% equal zero: Δ PROPERTY RIGHTS is zero 77% of the time, and takes on negative values for the remaining 7%.

property rights. These variables are relatively constant over short periods of time, and thus did not enter significantly in the Δ PROPERTY RIGHTS estimations. In Models 3-5 we alternate in the variables Δ FH POLITICAL RIGHTS, Δ FH CIVIL LIBERTIES, and Δ POLITY, none of which appear significant. Model 6 includes all relevant control variables. The effect of Δ PARTISANSHIP holds.

Finally, models 7-8 in **Table 10** estimate a probit regression on a transformation of the property rights “now” response. The dependent variable in model 7 and model 8 is a dummy variable equal to 1 if respondents indicate “tend to agree,” “agree in most cases,” or “fully agree” with the notion of property rights protection; the variable takes a value equal to 0 if respondents indicate “fully disagree,” “disagree in most cases,” or “tend to disagree.” The binary indicator equals one among 61% of respondents, and zero for the remaining 39%. Model 7 includes all firm and country control variables; model 8 excludes all insignificant controls. The estimates indicate that conservative shifts in the partisan orientation of the government prior to the survey are correlated with an increased probability that managers will be satisfied with the protection of property rights. This result is consistent with the findings reported throughout the paper.

Conclusion

We have approached the relationship between property rights, partisanship, and political institutions, in a novel way, using micro-level survey responses from thousands of firm managers in over 50 nations to conduct a quasi-experiment. As our experimental design reduces or eliminates many of the econometric concerns that plague the existing literature, including endogeneity and omitted variable bias, our results shed new light on the causal relationship between these variables. First, we found no evidence that hard, formal measures of political institutions affect property rights. In our data, increases in the number of independent checks

and balances in a political system have no bearing on firm owners' perceptions of the security of property. Second, we find that changes in government partisanship strongly and consistently influence firm owners' views on property rights. When governments of the right replace left-leaning executives, firm owners express significantly more confidence in the security of private property.

This finding resisted all our efforts to weaken it. We controlled for numerous firm- and country-level characteristics as well as formal and informal measures of political institutions. We controlled for how "helpful" firms owners perceived their governments to be. We also experimented with alternative partisan measures and different time periods over which we measured partisan change. Finally, we compared the results derived from our quasi-experiment to models that used the "now" responses of managers as the dependent variable. In each instance, we found that partisan changes in government influence property rights perceptions.

At this stage in our research, we are largely agnostic about the mechanism by which perceptions of property rights improve under conservative governments. It may be that improvements occur because the shift in leadership results in a different bundle of policies, which in the case of more conservative governments should favor business constituencies. Such an inference assumes that business leaders prefer greater protection of property rights, and that right-leaning governments pursue policies that enhance this protection. However, it is possible that clientelism or particularistic favors enhance perceptions of the business environment in general and property rights in particular; such a conclusion may rely more on the ability of business to extract rents from conservative governments, and have less to do with specific policies meant to improve property rights (Keefer and Vlaicu 2005). We leave this question to future research.

We also leave for future work the investigation of other links in the causal chain illustrated in **Figure 1**. In this paper we have shown that political phenomena influence individual perceptions of property rights. The next step is to analyze the determinants of firm behavior. The WBES may also prove useful in this respect as it contains inquiries related to firm investment decisions, both “now” and 3 years ago.

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Table 1: Summary Statistics

variable	N	mean	sd	min	max
Δ Property Rights	5245	0.153	0.770	-5	5
Mean Property Rights	5245	3.766	1.338	1	6
Δ Government Helpfulness	4979	0.045	0.871	-4	4
Constraint - Financing	5047	2.772	1.129	1	4
Constraint - Political Instability	4954	2.756	1.078	1	4
Constraint - Inflation	4996	2.754	1.067	1	4
Constraint - Taxes and Regulation	5094	2.934	0.992	0	4
Constraint - Corruption	4740	2.416	1.156	1	4
Government Owned	5190	0.136	0.343	0	1
Foreign Owned	5198	0.198	0.398	0	1
Exporter	5160	0.386	0.487	0	1
Manufacturing	4841	0.386	0.487	0	1
Services	4841	0.440	0.496	0	1
Agriculture	4841	0.053	0.224	0	1
Construction	4841	0.094	0.292	0	1
Log Sales	5245	10.354	7.949	-2.120	25.328
Sales Change	3949	0.176	0.527	-1	6
Number of Competitors	5232	2.283	0.726	0	9
Size	5232	1.830	0.732	1	3
Δ Partisanship	53	-0.132	0.810	-2.000	2.000
Δ Polity	51	0.044	0.180	-0.054	1.099
Δ FH Civil Liberties	53	0.038	0.138	-0.288	0.693
Δ FH Political Rights	53	0.012	0.163	-0.693	0.511
Δ Checks and Balances	51	-0.004	0.348	-1.281	0.916
Δ Polcon 3	53	-0.028	0.075	-0.309	0.088
Δ Polcon 5	51	-0.023	0.103	-0.695	0.088
Δ Executive Constraints	51	0.031	0.142	-0.182	0.693
GDP Growth	53	3.580	2.133	-2.498	8.275
(Imports + Exports) / GDP	53	71.358	30.999	19.964	161.840
M3 / GDP	47	41.548	23.204	8.435	128.352
Log Inflation	49	1.901	1.265	-1.597	5.608
Log GDP / Capita	53	7.784	1.382	5.025	10.410

Table 2: Summary Statistics by Country

Country	Firms	Δ Property		Δ	Δ Helpful	Sales	GDP Growth	Log Inflation	FH			Log Checks	Polcon 3	Log Exconst	
		Rights	Mean Property						Liberties	Political	Log Polity				
Albania	118	0.093	3.267	-2	-0.086	0.622	0.225	4.975	2.608	-0.288	0.000	0.000	0.000	0.017	0.000
Argentina	98	0.031	3.474	-1	-0.032	16.854	0.079	1.947	.	0.182	0.154	0.054	0.693	-0.126	0.182
Belize	48	0.188	4.656	0	0.596	16.835	0.123	7.005	.	0.000	0.000	.	0.000	-0.213	.
Bolivia	95	0.284	3.058	1	-0.065	14.734	0.029	3.230	1.566	0.000	0.000	0.000	0.223	0.088	0.000
Botswana	60	0.250	4.708	0	0.444	15.147	0.315	6.466	2.071	0.000	0.000	0.000	-0.288	-0.104	0.000
Brazil	197	0.081	3.645	0	0.000	16.629	0.024	2.140	1.706	0.223	0.000	0.000	-0.405	-0.017	0.000
Bulgaria	104	0.000	3.769	0	-0.155	0.962	0.090	1.525	5.608	0.000	0.000	0.000	0.000	0.000	0.000
Canada	98	-0.010	4.464	0	0.021	17.036	0.168	4.797	0.571	0.000	0.000	0.000	0.000	0.034	0.000
Chile	96	0.010	4.828	0	0.022	16.871	0.077	3.391	1.527	0.000	0.000	0.051	0.000	0.004	0.000
China	92	0.326	4.261	0	0.321	14.034	0.049	8.275	-1.597	0.693	0.000	0.000	0.000	0.000	0.000
Colombia	99	0.364	3.646	1	0.192	15.853	0.068	0.680	2.661	0.000	0.000	0.000	0.916	-0.109	0.000
Costa Rica	97	0.021	4.485	2	0.021	15.921	0.237	5.999	2.441	0.000	0.000	0.000	0.000	0.020	0.000
Croatia	123	0.089	3.931	0	-0.033	1.596	0.099	2.830	1.593	0.223	0.405	1.099	0.693	0.072	0.693
Czech Republic	123	-0.016	3.252	-2	-0.026	0.882	0.090	0.806	1.841	0.000	0.000	0.000	-0.336	-0.209	0.000
Dominican Republic	111	1.009	3.378	0	0.482	16.002	0.210	7.953	1.921	0.182	0.182	0.000	0.000	-0.049	0.000
El Salvador	99	0.545	3.586	0	0.177	15.540	-0.009	3.399	0.898	0.000	0.000	0.000	0.000	0.049	0.000
Estonia	132	0.409	3.985	0	0.173	1.213	0.565	5.925	1.876	0.000	0.000	0.000	0.000	0.040	0.000
France	54	0.130	3.935	-2	0.019	16.872	0.208	3.347	0.016	0.000	0.000	0.000	0.000	0.035	0.000
Georgia	91	0.584	3.371	0	0.030	0.448	0.130	4.584	2.137	0.000	-0.223	0.000	.	-0.068	0.000
Germany	107	0.010	3.644	-2	-0.729	17.448	0.099	2.264	0.194	0.000	0.000	0.000	-0.223	-0.008	0.000
Guatemala	97	0.495	3.464	0	0.469	16.679	0.185	4.203	1.911	0.000	0.000	0.000	0.000	-0.141	0.000
Honduras	88	0.068	3.216	0	0.054	18.848	0.112	2.953	2.649	0.000	-0.182	0.057	0.000	-0.038	0.000
Hungary	126	-0.071	4.313	0	-0.158	1.156	0.279	4.896	2.571	0.000	0.000	0.000	0.288	0.037	0.000
India	181	0.182	4.423	2	0.514	5.921	0.132	5.396	1.984	0.223	0.000	0.000	-1.281	-0.036	0.000
Italy	90	0.022	3.356	0	0.012	20.694	0.162	2.128	0.718	0.000	0.000	0.000	0.000	0.000	0.000
Kazakhstan	92	-0.054	3.190	0	-0.273	0.637	0.073	3.075	2.443	0.000	0.000	0.000	0.000	0.000	0.000
Kyrgyz Republic	101	-0.168	2.936	0	-0.278	0.291	0.009	5.284	3.109	-0.288	-0.693	0.000	.	0.000	0.000
Madagascar	66	0.030	2.364	0	0.190	12.860	0.232	4.261	2.100	0.000	0.000	-0.054	-0.288	-0.070	-0.182
Malawi	29	-0.414	3.345	0	-0.240	15.295	0.749	3.077	3.343	0.000	-0.182	0.000	0.000	-0.003	0.000
Mexico	96	0.229	3.479	0	0.229	15.748	0.234	5.539	2.751	0.223	0.182	0.111	0.916	-0.026	0.182
Moldova	76	-0.224	2.993	0	-0.500	0.361	-0.213	-1.550	3.114	0.000	0.182	0.000	0.000	0.060	0.000
Namibia	40	0.050	4.575	0	0.132	15.215	0.366	3.593	.	0.000	0.000	0.000	0.000	-0.071	0.000
Nicaragua	89	0.056	3.028	0	0.114	17.264	0.189	4.704	2.421	0.000	0.000	0.000	0.000	0.000	0.000
Peru	105	0.581	2.986	0	0.505	16.215	-0.029	2.493	1.751	0.223	0.511	.	0.000	0.000	.
Poland	199	0.161	3.925	0	0.000	1.282	0.320	5.196	2.401	0.000	0.000	0.000	0.223	-0.309	0.000
Portugal	83	0.169	3.651	0	0.354	19.831	0.133	3.930	0.919	0.000	0.000	0.000	-0.405	0.003	0.000
Romania	104	0.144	3.495	0	-0.149	0.672	0.049	-2.498	4.335	0.000	0.000	0.000	0.000	0.000	0.000
Senegal	29	0.759	3.552	0	0.364	12.750	0.229	4.236	0.070	0.000	0.223	0.642	0.000	-0.102	0.693
Slovenia	120	0.175	3.738	0	0.017	1.617	0.277	4.559	2.057	0.000	0.000	0.000	-0.223	0.000	0.000
South Africa	85	0.000	4.788	0	0.150	18.240	0.290	2.419	1.872	0.000	0.000	0.000	0.000	0.018	0.000
Spain	99	0.152	3.904	0	0.011	15.584	0.256	4.250	0.870	0.000	0.000	0.000	0.000	0.000	0.000
Sweden	97	-0.052	4.387	0	0.000	16.202	0.237	3.747	-0.826	0.000	0.000	0.000	0.288	0.035	0.000
Tanzania	34	0.882	2.971	0	0.760	14.470	0.338	3.962	2.368	0.288	0.288	0.262	0.000	0.000	0.000
Thailand	168	0.315	4.301	0	0.149	19.481	0.355	-0.671	1.357	0.000	0.182	0.000	0.000	0.000	0.000
Trinidad and Tobago	101	0.079	4.347	0	0.190	14.762	0.181	5.222	1.401	0.000	-0.154	0.000	-0.223	0.000	0.000
Tunisia	40	0.275	5.063	0	0.135	17.419	0.184	5.238	1.131	0.000	0.000	0.000	0.000	-0.144	0.000
Turkey	137	0.007	3.916	-2	0.007	1.579	0.100	3.318	4.284	0.000	0.000	0.000	0.405	0.013	0.000
Ukraine	182	-0.066	2.951	0	-0.422	0.564	0.044	0.200	2.963	0.000	-0.223	0.000	-0.182	-0.106	0.000
United Kingdom	96	0.010	3.911	-2	0.022	16.230	0.280	3.272	1.015	0.000	0.000	0.000	-0.288	-0.024	0.000
United States	97	0.082	3.856	0	0.021	17.020	0.163	4.237	0.860	0.000	0.000	0.000	0.000	-0.001	0.000
Uruguay	96	0.021	4.208	0	0.011	15.950	0.001	1.325	2.329	0.154	0.000	0.000	-0.693	-0.064	0.000
Uzbekistan	122	0.107	4.258	0	-0.134	0.697	0.547	4.400	.	0.000	0.000	0.000	0.000	0.000	0.000
Zambia	38	0.211	3.105	0	0.133	14.395	0.292	1.810	3.236	0.000	0.000	0.000	0.000	0.000	0.000

Table 3: Correlations among Country-Level Variables

	Δ Property Rights	Property Rights - 3 yrs ago	Mean Property Rights	Δ Partisanship	Δ Heritage Foundation	Δ Polity	Δ Executive Constraints	Δ FH Civil Liberties	Δ FH Political Rights	Δ Checks and Balances	Δ Polcon 3	GDP Growth	(Imports + Exports) / GDP	M3 / GDP	Log Inflation	Log GDP / Capita
Δ Property Rights	1															
Property Rights - 3 yrs ago	-0.3113*	1														
Mean Property Rights	-0.0397*	0.9619*	1													
Δ Partisanship	0.0532*	0.0658*	0.0844*	1												
Δ Heritage Foundation	0.0316	0.0156	0.0254	0.1165*	1											
Δ Polity	0.0151	0.006	0.0106	0.0211	-0.0236	1										
Δ Executive Constraints	0.0177	0.0126	0.0183	-0.005	-0.0539*	0.9467*	1									
Δ FH Civil Liberties	0.0908*	0.0337	0.0616*	0.2516*	0.1968*	0.2341*	0.2439*	1								
Δ FH Political Rights	0.1140*	0.0088	0.0420*	-0.0134	0.0443*	0.4805*	0.4848*	0.4636*	1							
Δ Checks and Balances	0.0156	-0.0495*	-0.0476*	-0.2111*	-0.0008	0.3221*	0.3826*	-0.0907*	0.3009*	1						
Δ Polcon 3	-0.0221	0.028	0.0231	0.0784*	0.1545*	0.1713*	0.1181*	0.0199	0.1200*	0.0211	1					
GDP Growth	0.0928*	0.0804*	0.1113*	0.1706*	0.2415*	-0.0301	-0.0285	0.1644*	-0.1097*	-0.0483*	-0.0366*	1				
(Imports + Exports) / GDP	-0.0219	0.0256	0.0207	-0.0469*	-0.1037*	0.0858*	0.0498*	-0.3126*	-0.1022*	0.1205*	0.0919*	0.0116	1			
M3 / GDP	0.0106	0.1726*	0.1849*	-0.1361*	-0.1875*	-0.0386*	-0.0466*	0.2536*	0.2116*	-0.0825*	0.1358*	0.0582*	0.0239	1		
Log Inflation	-0.0579*	-0.0985*	-0.1203*	0.0206	-0.0929*	-0.0680*	-0.0779*	-0.3360*	-0.1641*	0.1106*	-0.1256*	-0.3053*	0.1785*	-0.5436*	1	
Log GDP / Capita	-0.0360*	0.1541*	0.1517*	-0.3264*	0.2666*	0.0194	0.0754*	-0.0069	0.2165*	0.1866*	0.0241	0.0377*	-0.0139	0.2796*	-0.4476*	1

Table 4: Correlations among Firm-Level Variables

	Δ Property Rights	Property Rights - 3 yrs ago	Mean Property Rights	Δ Helpful Government	Constraint - Financing	Constraint - Political Instability	Constraint - Inflation	Constraint - Taxes/Regulation	Constraint - Corruption	Government Owned	Foreign	Exporter	Manufacturing	Services	Agriculture	Construction	Log Sales	Sales Change	Number of Competitors	Size
Δ Property Rights	1.0000																			
Property Rights - 3 yrs ago	-0.3113*	1.0000																		
Mean Property Rights	-0.0397*	0.9619*	1.0000																	
Δ Helpful Government	0.2522*	-0.0334	0.0363	1.0000																
Constraint - Financing	-0.0137	-0.1376*	-0.1485*	-0.0459*	1.0000															
Constraint - Political Instability	-0.0112	-0.1844*	-0.1971*	-0.0614*	0.2442*	1.0000														
Constraint - Inflation	-0.0036	-0.1543*	-0.1632*	-0.0523*	0.2570*	0.4327*	1.0000													
Constraint - Taxes/Regulation	-0.0500*	-0.1985*	-0.2229*	-0.1018*	0.3250*	0.4199*	0.3024*	1.0000												
Constraint - Corruption	0.0171	-0.2473*	-0.2554*	-0.0006	0.2706*	0.4157*	0.3811*	0.2948*	1.0000											
Government Owned	-0.0070	0.1028*	0.1060*	-0.0305	0.0405*	-0.0436*	-0.0218	-0.0428*	-0.0920*	1.0000										
Foreign	0.0431*	0.0238	0.0374*	0.0779*	-0.1587*	-0.0480*	-0.0962*	-0.1106*	-0.0518*	-0.0607*	1.0000									
Exporter	0.0266	0.0591*	0.0697*	0.0409*	-0.0418*	-0.0550*	-0.1180*	-0.0721*	-0.0712*	0.0763*	0.2185*	1.0000								
Manufacturing	0.0235	0.0013	0.0080	0.0269	0.0540*	0.0223	-0.0126	0.0268	0.0337	0.0502*	0.1074*	0.3456*	1.0000							
Services	-0.0004	0.0139	0.0145	0.0087	-0.1083*	-0.0187	-0.0621*	-0.0180	-0.0868*	-0.0556*	-0.0391*	-0.2830*	-0.7023*	1.0000						
Agriculture	-0.0199	-0.0114	-0.0175	-0.0788*	0.0598*	0.0408*	0.0910*	0.0213	0.0297	0.0548*	-0.0693*	-0.0222	-0.1876*	-0.2099*	1.0000					
Construction	-0.0182	-0.0185	-0.0245	-0.0065	0.0570*	-0.0086	0.0477*	0.0128	0.0606*	-0.0479*	-0.0627*	-0.0883*	-0.2558*	-0.0764*	0.0000	1.0000				
Log Sales	0.0643*	0.0651*	0.0870*	0.1193*	-0.1769*	-0.1441*	-0.2249*	-0.1665*	-0.0899*	-0.2545*	0.2042*	0.0610*	0.0207	0.0695*	-0.1652*	-0.0294	1.0000			
Sales Change	0.0387	0.0180	0.0306	0.0505*	-0.0904*	-0.0997*	-0.0584*	-0.0994*	-0.0640*	-0.0263	0.0659*	0.0843*	-0.0531*	0.0165	0.0095	0.0382	-0.0068	1.0000		
Number of Competitors	-0.0522*	-0.0232	-0.0394*	-0.0404*	0.0691*	0.0842*	0.1509*	0.0689*	0.0959*	-0.0159	-0.1068*	0.0023	-0.0546*	-0.0618*	0.0795*	0.0947*	-0.4238*	0.0491*	1.0000	
Size	0.0402*	0.0989*	0.1155*	0.0502*	-0.1204*	-0.0258	-0.1055*	-0.0910*	-0.0569*	0.2194*	0.2358*	0.2891*	0.2137*	-0.1754*	0.0303	-0.0692*	0.2301*	0.0046	-0.1521*	1.0000

Table 5: Determinants of Property Rights – Interests vs. Institutions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Property Rights - 3 yrs ago	-0.297*** (0.018)	-0.316*** (0.023)	-0.309*** (0.022)	-0.316*** (0.021)	-0.317*** (0.020)	-0.315*** (0.023)	-0.317*** (0.023)	-0.309*** (0.022)	-0.317*** (0.021)
GDP Growth	0.049*** (0.015)	0.065** (0.030)	0.067** (0.031)	0.060** (0.030)	0.072*** (0.026)	0.064** (0.030)	0.069** (0.030)	0.067** (0.031)	0.071*** (0.025)
Log Sales	0.020*** (0.005)	0.013** (0.006)	0.013** (0.006)	0.011* (0.006)	0.008 (0.005)	0.013** (0.006)	0.012** (0.006)	0.012* (0.006)	0.007 (0.005)
Δ Partisanship		0.092*** (0.030)	0.089*** (0.030)	0.072** (0.033)	0.097*** (0.030)	0.094*** (0.030)	0.099*** (0.033)	0.090*** (0.030)	0.098*** (0.035)
Δ Polity			0.182* (0.102)						-0.322* (0.170)
Δ FH Civil Liberties				0.558* (0.308)					0.057 (0.215)
Δ FH Political Rights					0.948*** (0.222)				1.144*** (0.356)
Δ Polcon 3						-0.377 (0.372)			
Δ Checks and Balances							0.061 (0.075)		
Δ Executive Constraints								0.266 (0.173)	
Observations	7887	5245	5092	5245	5245	5245	5043	5092	5092
Countries	79	53	51	53	53	53	51	51	51
Pseudo R-squared	0.065	0.073	0.071	0.075	0.081	0.073	0.075	0.071	0.079

Notes: The dependent variable is Δ PROPERTY RIGHTS, which represents the difference between the “now” and “three years ago” responses to the following WBES inquiry: “*I am confident that the legal system will uphold my contract and property rights in business disputes. To what degree do you agree with this statement?*” (1=fully disagree, 2=disagree in most cases, 3=tend to disagree, 4= tend to agree, 5=agree in most cases, 6=fully agree). All change variables represent differences between 1997 and 2000. P-values reported in parentheses. ***, **, and * indicate statistical significance levels of 10, 5, and 1 percent, respectively

Table 6: Predicted Probabilities

	Predicted Δ Property Rights						
	-3	-2	-1	0	1	2	3
Δ Partisanship							
Right to Left (-2)	0.4%	1.0%	4.9%	83.3%	7.9%	1.9%	0.3%
Right to Center or Center to Left (-1)	0.3%	0.8%	4.1%	82.6%	9.2%	2.3%	0.4%
No Change	0.2%	0.6%	3.4%	81.5%	10.5%	2.9%	0.6%
Left to Center or Center to Right (1)	0.2%	0.5%	2.8%	80.1%	12.0%	3.5%	0.7%
Left to Right (2)	0.1%	0.4%	2.3%	78.3%	13.5%	4.2%	0.9%
Difference between Δ Partisanship = -2 and Δ Partisanship = 2	-0.3%	-0.6%	-2.6%	-5.0%	5.6%	2.3%	0.6%

Notes: These predicted probabilities were estimated from Model 5 of **Table 5**, holding the values of all other right-hand side variables at their means. The estimates imply that the probability that a firm manager reports an improvement in property rights of one point (Δ PROPERTY RIGHTS = 1) is 7.9% when the country experiences a shift from a right- to left-leaning government; a shift from left- to right-leaning, on the other hand, increases the probability of a one point improvement to 13.5%.

Table 7: Determinants of Property Rights – Firm and Country Controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Property Rights - 3 yrs ago	-0.317*** (0.021)	-0.369*** (0.022)	-0.322*** (0.023)	-0.330*** (0.022)	-0.324*** (0.022)	-0.331*** (0.023)	-0.341*** (0.023)	-0.336*** (0.025)	-0.338*** (0.023)	-0.389*** (0.024)
GDP Growth	0.052* (0.028)	0.058** (0.027)	0.073*** (0.028)	0.073** (0.029)	0.077*** (0.028)	0.064** (0.028)	0.079*** (0.028)	0.067** (0.031)	0.056** (0.028)	0.070** (0.029)
Log Sales	0.011* (0.006)	0.008 (0.005)	0.010* (0.006)	0.009 (0.006)	0.009 (0.006)	0.010* (0.006)	0.009 (0.005)	0.015* (0.009)	0.012 (0.008)	0.005 (0.006)
Δ Partisanship	0.072** (0.029)	0.077*** (0.026)	0.084*** (0.030)	0.098*** (0.031)	0.099*** (0.032)	0.083*** (0.030)	0.110*** (0.033)	0.089** (0.038)	0.113** (0.046)	0.074** (0.034)
Δ Helpful Government	0.320*** (0.034)									0.264*** (0.041)
Helpful Government		0.203*** (0.024)								0.085*** (0.024)
Constraint - Financing			-0.041* (0.022)							-0.020 (0.026)
Constraint - Political Instability				-0.053** (0.026)						0.025 (0.033)
Constraint - Inflation					-0.040 (0.027)					
Constraint - Taxes & Regulation						-0.104*** (0.023)				-0.032 (0.035)
Constraint - Corruption							-0.072*** (0.023)			-0.058** (0.023)
Government Owned								0.198*** (0.067)		0.073 (0.073)
Foreign Owned								0.045 (0.055)		
Exporter								0.100* (0.056)		0.058 (0.054)
Manufacturing								0.197 (0.163)		
Services								0.265 (0.164)		
Agriculture								0.181 (0.204)		
Construction								0.114 (0.186)		
Sales Change (%)								0.124** (0.052)		0.032 (0.045)
Competitors								-0.006 (0.062)		
Size								0.026 (0.044)		
(Imports + Exports) / GDP									0.000 (0.002)	
M3 / GDP									0.003 (0.003)	
Log Inflation									-0.007 (0.050)	
Log GDP / Capita									0.025 (0.047)	
Observations	4979	5062	5047	4954	4996	5094	4740	3526	4515	3242
Countries	53	53	53	53	53	53	53	53	44	52
Pseudo R-squared	0.104	0.096	0.075	0.077	0.076	0.078	0.080	0.084	0.079	0.122

Notes: The dependent variable is Δ PROPERTY RIGHTS. Δ Helpful Government represents the difference between the “Now” and “3 years ago” responses to the following WBES question: “Please rate your overall perception of the relation between government and/or bureaucracy and private firms on the following scale. All in all, for doing business I perceive the state as:” 1=Very Unhelpful to 5=Very Helpful. Helpful Government is the “Now” response. Government owned, Foreign Owned, Exporter, Manufacturing, Services, Construction are dummy variables. Sales Change (%) is the manager reported percentage change in firm sales over the previous three years. Competitors represents the number of competitors identified by the firm. Size is coded as follows: 1=small (5-50 employees); 2=medium (51-500 employees) 3=large (>500 employees). The economic control variables are country averages (1997-2000). GDP / capita and Inflation are logged values. P-values reported in parentheses. ***, **, and * indicate statistical significance levels of 10, 5, and 1 percent, respectively.

Table 8: Correlations among Alternative Measures of Partisanship Change

	Δ Partisanship	Δ Partisanship (incl. Swank data)	Δ Partisanship (2000 vs. 1995)	Δ Partisanship avg (1998- 2000) vs. avg (1995- 1997)
Δ Partisanship	1			
Δ Partisanship (incl. Swank data)	0.989	1		
Δ Partisanship (2000 vs. 1995)	0.821	0.830	1	
Δ Partisanship - avg (1998-2000) vs. avg (1995-1997)	0.847	0.856	0.947	1

Notes: Δ Partisanship is derived from the *World Bank Database of Political Institutions* (DPI) (Beck et al. 2001). Using the following country-level coding of the political orientation of the executive branch (Right = 3, Center = 2, Left = 1), Δ Partisanship represents the DPI change in the political orientation of the executive between 1997 and 2000. Δ Partisanship (incl. Swank data) substitutes Swank's codings for OECD nations into the DPI data for Δ Partisanship. Δ Partisanship (2000 vs. 1995) represents the change between 2000 and 1995 in the DPI measure, and Δ Partisanship – avg (1998-2000) vs. avg (1995-1997) takes the difference between the average political orientation of the government 1998-2000 and 1995-1997 in the DPI measure.

Table 9: Interests as Determinants of Property Rights –Alternative Codings of Partisanship

	(1)	(2)	(3)	(4) Probit
Property Rights - 3 yrs ago	-0.316*** (0.023)	-0.324*** (0.023)	-0.317*** (0.022)	-0.327*** (0.030)
GDP Growth 1997-2000	0.064** (0.029)	0.070** (0.028)	0.067** (0.028)	0.083** (0.038)
Log Sales	0.013** (0.006)	0.017*** (0.006)	0.015** (0.006)	0.011 (0.008)
Δ Partisanship (incl. Swank data)	0.100*** (0.031)			
Δ Partisanship (2000 vs. 1995)		0.069** (0.028)		
Δ Partisanship - avg (1998-2000) vs. avg (1995-1997)			0.094*** (0.036)	
Δ Partisanship				0.154*** (0.052)
Observations	5245	4889	5556	5245
Countries	53	50	56	53
Pseudo R-squared	0.074	0.076	0.072	0.112

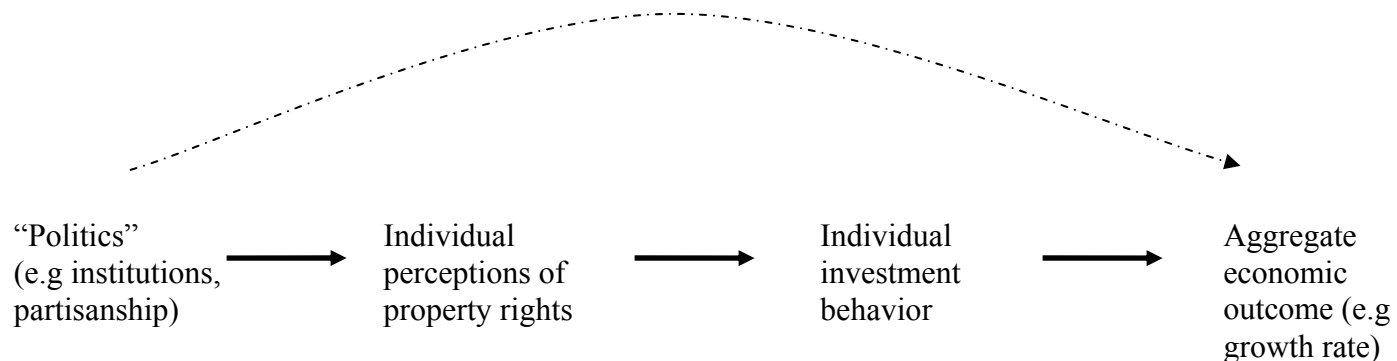
Notes: The dependent variable in **Models 1-3** is Δ PROPERTY RIGHTS, which represents the difference between the “now” and “three years ago” responses to the WBES property rights inquiry. The dependent variable in **Model 4** is a dummy variable equal to 1 if Δ PROPERTY RIGHTS > 0 and equal to 0 otherwise. Δ Partisanship (incl. Swank data) substitutes Swank’s codings for OECD nations into the DPI data for Δ Partisanship. Δ Partisanship (2000 vs. 1995) represents the change between 2000 and 1995 in the DPI measure, and Δ Partisanship – avg (1998-2000) vs. avg (1995-1997) takes the difference between the average political orientation of the government 1998-2000 and 1995-1997 in the DPI measure. P-values reported in parentheses. ***, **, and * indicate statistical significance levels of 10, 5, and 1 percent, respectively.

Table 10: Determinants of Property Rights – Robustness Tests: “Now” Responses

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
							probit	probit
Δ Partisanship	0.108** (0.048)	0.195*** (0.061)	0.193*** (0.061)	0.185*** (0.063)	0.192*** (0.061)	0.202*** (0.053)	0.216*** (0.066)	0.219*** (0.068)
Government Owned		0.358*** (0.057)	0.354*** (0.059)	0.354*** (0.059)	0.350*** (0.059)	0.326*** (0.061)	0.421*** (0.085)	0.414*** (0.074)
Foreign Owned		0.021 (0.047)	0.021 (0.047)	0.020 (0.047)	0.024 (0.049)		0.077 (0.049)	
Exporter		0.064 (0.047)	0.063 (0.047)	0.065 (0.047)	0.061 (0.047)		0.151*** (0.051)	0.110** (0.049)
Manufacturing		-0.046 (0.170)	-0.045 (0.171)	-0.058 (0.171)	-0.040 (0.168)		-0.093 (0.169)	
Services		0.023 (0.172)	0.025 (0.173)	0.015 (0.172)	0.036 (0.169)		0.017 (0.181)	
Agriculture		0.007 (0.190)	0.011 (0.186)	0.003 (0.187)	0.021 (0.191)		-0.066 (0.192)	
Construction		0.036 (0.184)	0.039 (0.183)	0.028 (0.183)	0.040 (0.182)		-0.013 (0.200)	
Log Sales		0.010 (0.008)	0.009 (0.008)	0.010 (0.008)	0.011 (0.008)		0.007 (0.008)	
Sales Change (%)		0.005 (0.038)	0.004 (0.038)	0.007 (0.038)	0.004 (0.038)		-0.019 (0.050)	
Competitors		0.051 (0.045)	0.049 (0.045)	0.055 (0.046)	0.051 (0.045)		0.080 (0.052)	
Size		0.074** (0.037)	0.073** (0.036)	0.072** (0.037)	0.073* (0.038)	0.104*** (0.036)	0.048 (0.041)	
GDP Growth		0.048*** (0.016)	0.050*** (0.017)	0.048*** (0.016)	0.048*** (0.017)	0.044*** (0.017)	0.069*** (0.021)	0.058*** (0.020)
(Imports+Exports)/GDP		-0.000 (0.001)	-0.000 (0.001)	0.000 (0.001)	-0.000 (0.001)		-0.001 (0.002)	
M3 / GDP		0.008*** (0.002)	0.007*** (0.002)	0.007*** (0.002)	0.007*** (0.002)	0.007*** (0.002)	0.009*** (0.003)	0.008*** (0.002)
Log Inflation		0.057 (0.040)	0.058 (0.040)	0.065 (0.044)	0.058 (0.041)		0.076 (0.051)	
Log GDP / Capita		0.156*** (0.050)	0.153*** (0.050)	0.159*** (0.049)	0.154*** (0.050)	0.146*** (0.038)	0.219*** (0.065)	0.214*** (0.050)
Δ FH Political Rights			0.122 (0.234)					
Δ FH Civil Liberties				0.231 (0.300)				
Δ Polity					0.091 (0.130)			
Observations	6059	3264	3264	3264	3200	5246	3264	5121
Countries	53	44	44	44	43	47	44	47
Pseudo R-squared	0.002	0.035	0.036	0.036	0.036	0.032	0.089	0.080

Notes: The dependent variable in **Models 1-6** is the “now” response to the WBES property rights question. The dependent variable in **Models 7-8** is a dummy variable equal to 1 if respondents indicate “tend to agree,” “agree in most cases,” or “fully agree”; the variable takes a value equal to 0 if respondents indicate “fully disagree,” “disagree in most cases,” or “tend to disagree.” P-values reported in parentheses.

Figure 1: Causal Pathway in Institutional and Partisan Theories of Property Rights



Note: Existing empirical research (e.g., cross-national growth regressions) bypasses the effect of institutions and partisanship on perceptions and behavior, and the effect of perceptions on investment behavior. We indicate this approach with the dotted line arching over the intermediate steps. To better identify these theories of institutions, we examine the connection between the first two parts of the causal pathway.

Figure 2a: Histogram of Property Rights “Now” Responses

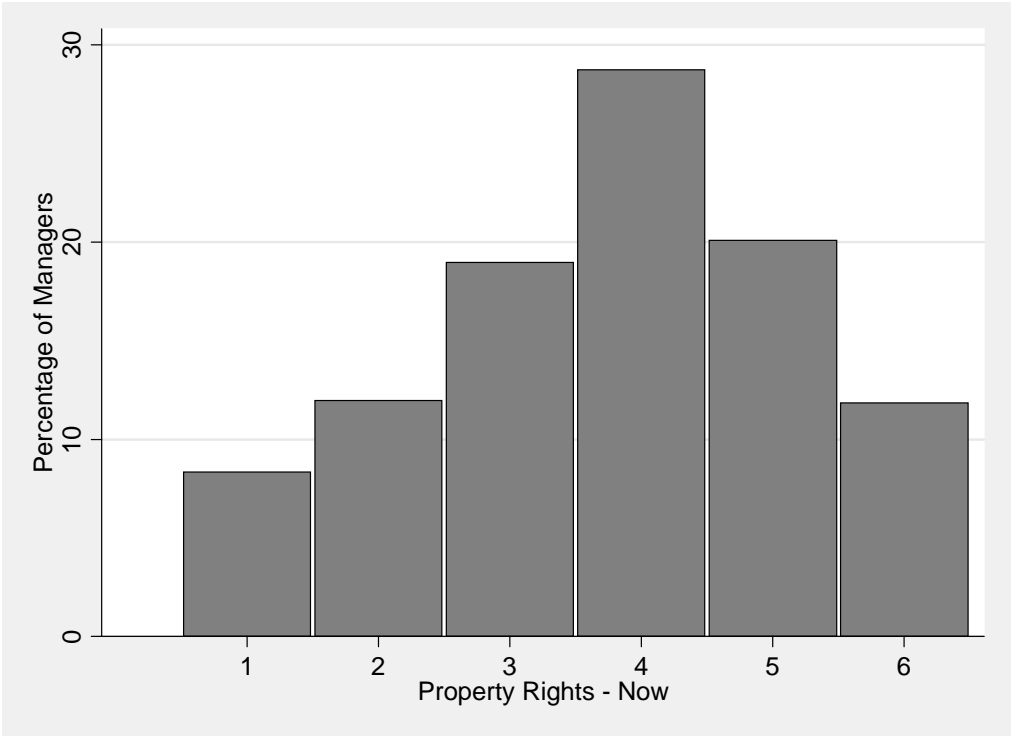


Figure 2b: Histogram of Δ Property Rights

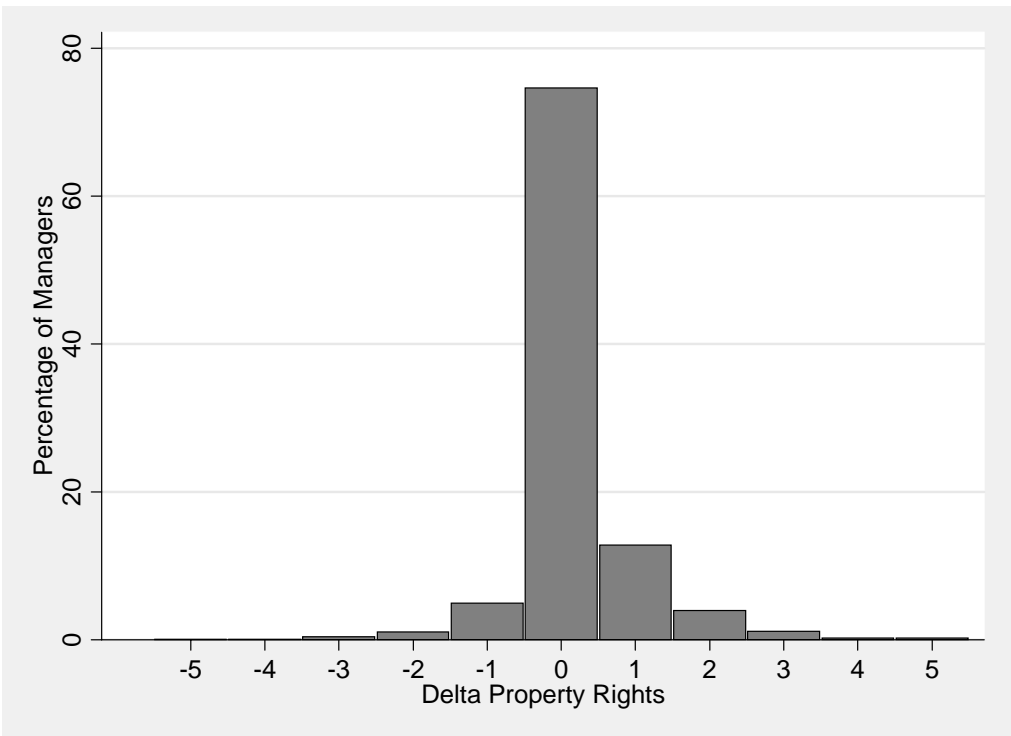


Figure 3: Predicted Probabilities

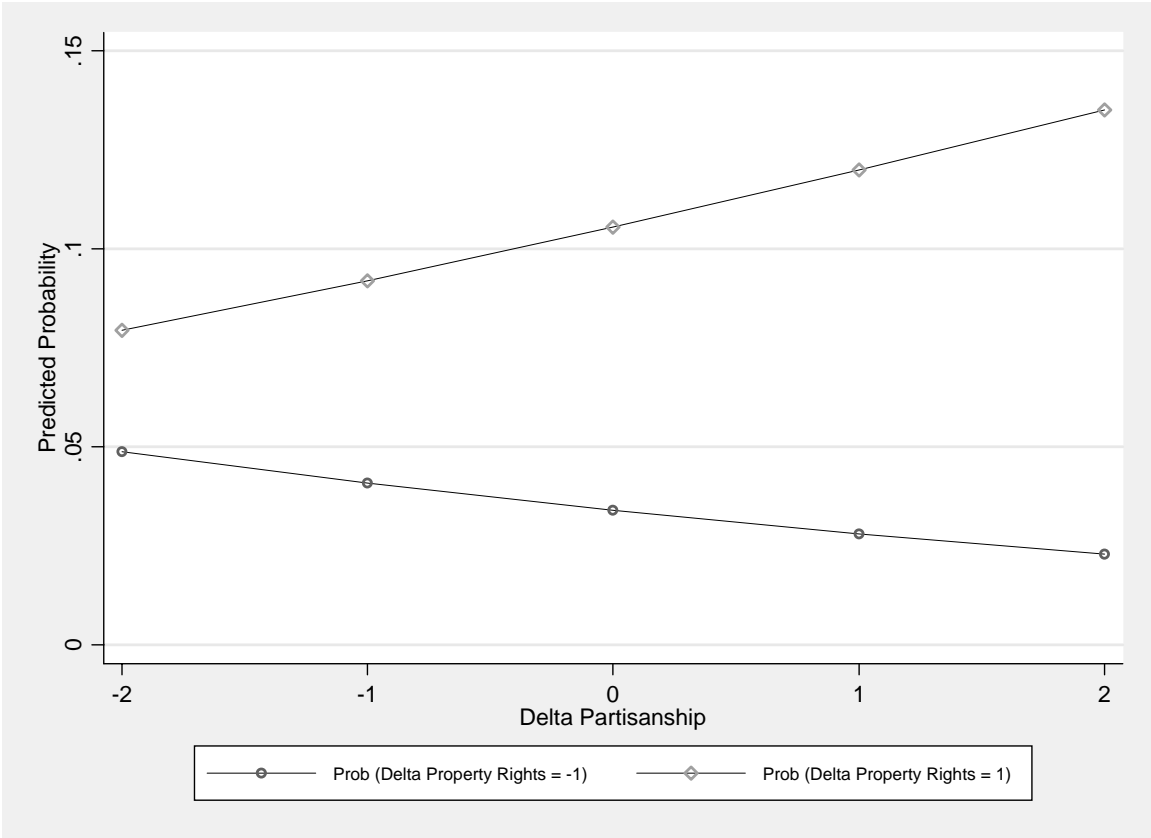


Figure 4: “Now” Responses of Firm Managers



Note: The figures display the distribution of “now” response to the following WBES inquiry: “I am confident that the legal system will uphold my contract and property rights in business disputes. To what degree do you agree with this statement?” (1=fully disagree, 2=disagree in most cases, 3=tend to disagree, 4= tend to agree, 5=agree in most cases, 6=fully agree). Using the following country-level coding of the political orientation of the executive branch (Right = 3, Center = 2, Left = 1), countries categorized as “Shift to Right” are those with values of Δ Partisanship – which represents the change in the political orientation of the executive between 1997 and 2000 – equal to 1 or 2. Managers in countries categorized as “Shift to Left” are those in which Δ Partisanship takes on values of -1 or -2.

Data Appendix – Firm-Level Variable Definitions and Sources

Variable	Coding	Source	Notes
PROPERTY RIGHTS	"Now" response recoded: (6) fully agree (5) agree in most cases (4) tend to agree (3) tend to disagree (2) disagree in most cases (1) fully disagree	WBES	"I am confident that the legal system will uphold my contract and property rights in business disputes". To what degree do you agree with this statement?
PROPERTY RIGHTS - 3 yrs ago	"3 years ago" response recoded: (6) fully agree (5) agree in most cases (4) tend to agree (3) tend to disagree (2) disagree in most cases (1) fully disagree	WBES	"I am confident that the legal system will uphold my contract and property rights in business disputes". To what degree do you agree with this statement?
Δ PROPERTY RIGHTS	PROPERTY RIGHTS - PROPERTY RIGHTS 3 yrs ago (range: -5 to 5, with positive values indicating an improvement over the 3 year period)	WBES	
HELPFUL GOVERNMENT	"Now" response recoded: (1) Very Unhelpful (2) Mildly Unhelpful (3) Neutral (4) Mildly Helpful (5) Very helpful	WBES	Please rate your overall perception of the relation between government and/or bureaucracy and private firms on the following scale: following scale. "All in all, for doing business I perceive the state as":
HELPFUL GOVERNMENT - 3 yrs ago	"3 years ago" response recoded: (1) Very Unhelpful (2) Mildly Unhelpful (3) Neutral (4) Mildly Helpful (5) Very helpful	WBES	Please rate your overall perception of the relation between government and/or bureaucracy and private firms on the following scale: following scale. "All in all, for doing business I perceive the state as":
Δ HELPFUL GOVERNMENT	HELPFUL GOVERNMENT - HELPFUL GOVERNMENT (3 yrs ago)	WBES	
Constraint - Financing	(1) no obstacle (2) minor obstacle (3) moderate obstacle (4) major obstacle	WBES	"Please judge on a four point scale how problematic are the following factors for the operation and growth of your business:"
Constraint - Political Instability	(1) no obstacle (2) minor obstacle (3) moderate obstacle (4) major obstacle	WBES	"Please judge on a four point scale how problematic are the following factors for the operation and growth of your business:"
Constraint - Inflation	(1) no obstacle (2) minor obstacle (3) moderate obstacle (4) major obstacle	WBES	"Please judge on a four point scale how problematic are the following factors for the operation and growth of your business:"
Constraint - Taxes & Regulation	(1) no obstacle (2) minor obstacle (3) moderate obstacle (4) major obstacle	WBES	"Please judge on a four point scale how problematic are the following factors for the operation and growth of your business:"
Constraint - Corruption	(1) no obstacle (2) minor obstacle (3) moderate obstacle (4) major obstacle	WBES	"Please judge on a four point scale how problematic are the following factors for the operation and growth of your business:"
Government Owned	dummy for government ownership	WBES	
Foreign Owned	dummy for foreign ownership	WBES	
Exporter	dummy for exporter	WBES	

Data Appendix – Firm-Level Variable Definitions and Sources (cont.)

Variable	Coding	Source	Notes
Manufacturing	dummy for manufacturing	WBES	
Services	dummy for services	WBES	
Agriculture	dummy for agriculture	WBES	
Construction	dummy for construction	WBES	
Sales Change (%)	% change in sales over past 3 years	WBES	"Please estimate the growth of your company's sales over the past three years."
Competitors	Competitors represents the number of competitors identified by the firm.	WBES	
Size	Size is coded as follows: 1=small (5-50 employees); 2=medium (51-500 employees) 3=large (>500 employees).	WBES	

Data Appendix – Country-Level Variable Definitions and Sources

Variable	Coding	Source
Δ Partisanship	Δ PARTISANSHIP represents the change in the political orientation of the executive between 1997 and 2000. This measure is derived using the following country-level coding of the political orientation of the executive branch: Right = 3, Center = 2, Left =	World Bank Database of Political Institutions, (DPI) Beck et al. (2001)
Δ Partisanship (incl. Swank data)	Partisanship (incl. Swank data) substitutes DPI data with the Swank (2002) data on the political orientation of cabinet portfolios in OECD countries between 1997 and 2000	Swank (2002)
Δ Partisanship - avg (1998-2000) vs. avg (1995-1997)	Represents the change in the average political orientation of the executive between 1995-1997 and 1998-2000. This measure is derived using the following country-level coding of the political orientation of the executive branch: Right = 3, Center = 2, Left	DPI
Δ Polity	difference in log (Polity + 11) 1999 minus 1996	Polity IV
Δ Executive Constraints	difference in log Polity EXCONST 1999-1996	Polity IV
Δ FH Civil Liberties	difference in log FH Civil Liberties 1999-1996	Freedom House
Δ FH Political Rights	difference in log FH Civil Liberties (recoded so that higher values signify greater rights) 1999-1996	Freedom House
Δ Checks and Balances	difference in log FH Political Rights (recoded so that higher values signify greater rights) 1999-1996	DPI
Δ Polcon 3	difference in Polcon 3, 1999-1996	Polcon (Henisz, 2002)
Log Inflation	log of average inflation (1996-1999)	World Development Indicators (WDI)
GDP Growth (Imports + Exports) / GDP	average growth rate of GDP (1996-1999)	WDI
M3 / GDP	average trade (1996-1999)	WDI
	average liquid liabilities (1996-1999)	WDI