

Online Appendix

Demand for Law and the Security of Property Rights: The Case of Post-Soviet Russia

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1 Interviews

Table 1.1: Characteristics of Interview Respondents

Total Interviews	90
Firms	56
<i>of which</i>	
<15 employees	15
15 to 100 employees	12
101 to 250 employees	12
>250 employees	17
Lawyers	22
Private Security Agencies	12

Ninety semi-structured interviews were conducted by the author throughout 2009. The breakdown across firms, lawyers, and private security agencies is presented in Table 1.1. Seventy-seven interviews were conducted in Moscow; the remaining interviews were conducted in Barnaul. Seventy-five of the respondents were Russian; the other 15 were expatriates with extensive business experience in Russia. Thirty-six supplementary interviews were conducted with business journalists, academics, non-Governmental organizations, and business association representatives. Twenty of the original respondents were then re-interviewed in fall of 2014. Table 1.2 provides additional background information for the 90 semi-structured interviews.

Table 1.2: List of Interview Respondents

	Date(s) of Interview(s)	Job Title	Approx. Age	Firm Size and Sector	Location
Firm 1	2/10/09	owner	30s	small importer and retailer	Moscow
Firm 2	2/17/09	owner	30s	small real estate investment firm	Moscow
Firm 3	2/18/09	head of legal	50s	large domestic pharmaceutical company	Moscow
Firm 4	2/20/09	owner	20s	small internet startup	Moscow
Firm 5	2/26/09	M&A manager	30s	large domestic financial holding	Moscow
Firm 6	2/27/09	co-owner	50s	small trading firm for valuable metals	Moscow
Firm 7	3/10/09	owner	40s	small management consulting firm	Moscow
Firm 8	3/10/09	owner	20s	small retail business	Moscow
Firm 9	3/11/09	asst. gen. director	30s	small mail order business	Moscow
Firm 10	3/14/09	finance analyst	30s	large intl. consumer goods company	Moscow
Firm 11	3/20/09	owner	40s	small management consulting firm	Moscow
Firm 12	3/20/09	general manager	40s	large domestic automobile retailer	Moscow
	10/22/14				
Firm 13	3/20/09	managing director	30s	large intl. automobile manufacturer	Moscow
Firm 14	3/23/09	chairman of board	50s	large intl. bank	Moscow
	10/10/14				
Firm 15	3/26/09	owner	40s	small regional investment consulting firm	Moscow
Firm 16	3/26/09	owner	50s	small importer and retailer	Moscow
	10/14/14				
Firm 17	3/27/09	exec. director	40s	large intl. automobile manufacturer	Moscow
Firm 18	4/01/09	co-owner	40s	small public relations firm	Moscow
	10/14/14				
Firm 19	4/02/09	CEO	30s	large domestic internet firm	Moscow
	10/16/14				
Firm 20	4/07/09	owner	40s	medium-sized agricultural producer	Kaliningrad
Firm 21	4/07/09	owner	50s	small software firm	Moscow
Firm 22	5/07/09	CEO	30s	medium-sized domestic internet firm	Moscow
Firm 23	5/25/09	owner	50s	small medical practice	Moscow
Firm 24	5/30/09	partner	50s	large intl. auditing firm	Moscow
Firm 25	6/03/09	owner	30s	small financial consultancy for startups	Moscow
Firm 26	6/09/09	exec. director	40s	medium-sized real estate investment firm	Moscow
Firm 27	6/10/09	director, public affairs	50s	intl. division of large domestic steel company	Moscow
Firm 28	10/13/09	owner	40s	medium-sized light manufacturing company	Moscow
Firm 29	10/22/09	co-owner	40s	medium-sized chemical company	Moscow
	10/24/14				
Firm 30	10/23/09	director	50s	medium-sized hi-tech engineering company	Taganrog

Table 1.2: List of Interview Respondents (continued)

	Date(s) of Interview(s)	Job Title	Approx. Age	Firm Size and Sector	Location
Firm 31	10/26/09	managing partner	40s	small management consulting firm	Moscow
Firm 32	10/30/09	consultant	20s	medium-sized recruiting company	Moscow
Firm 33	11/06/09	HR director	20s	medium-sized energy company	Moscow
Firm 34	11/23/09	owner	30s	small IT outsourcing company	Moscow
Firm 35	11/24/09	procurement manager	30s	large domestic cell phone retailer	Moscow
Firm 36	12/01/09	owner	20s	small tourist Agency	Moscow
Firm 37	12/02/09	director, regional dev†	50s	large domestic pharmaceutical company	Moscow
Firm 38	12/02/09	general director	50s	small medical equipment company	Moscow
Firm 39	12/03/09	manager	20s	large construction company	Moscow
Firm 40	12/04/09	general director	50s	small medical equipment company	Moscow
Firm 41	12/08/09	finance director	50s	large intl. pharmaceutical company	Moscow
Firm 42	12/10/09	general director	40s	small auto repair service	Moscow
Firm 43	12/10/09	owner	30s	small management consulting firm	Moscow
Firm 44	12/15/09	owner	20s	small importer and retailer	Moscow
Firm 45	12/15/09	owner	20s	small internet startup	Moscow
Firm 46	12/16/09	VP, corp. affairs	30s	large intl. bank	Moscow
	10/06/14				
Firm 47	12/17/09	general director	40s	small plastics company	Moscow
Firm 48	12/17/09	owner	50s	small tourist Agency	Moscow
Firm 49	12/19/09	sales manager	30s	medium-sized energy company	Moscow
Firm 50	9/24/09	owner	40s	chain of movie theaters and nightclubs	Barnaul
Firm 51	9/28/09	entrepreneur	20s	owner of digital payment terminals	Barnaul
Firm 52	9/28/09	general manager	30s	medium-sized manufacturing company	Barnaul
Firm 53	9/29/09	owner	50s	chain of gas stations	Barnaul
Firm 54	9/30/09	owner	40s	chain of retail stores	Barnaul
Firm 55	9/30/09	owner	50s	chain of grocery stores	Barnaul
Firm 56	10/01/09	owner	50s	small supplier for energy companies	Barnaul
Legal 1	3/02/09	associate	20s	large intl. law firm	Moscow
Legal 2	3/04/09	associate	20s	large intl. law firm	Moscow
Legal 3	3/04/09	managing partner	30s	large domestic law firm	Moscow
Legal 4	3/05/09	independent lawyer	40s		Moscow

Table 1.2: List of Interview Respondents (continued)

	Date(s) of Interview(s)	Job Title	Approx. Age	Firm Size and Sector	Location
Legal 5	3/06/09	independent lawyer	50s		Moscow
Legal 6	3/06/09	managing partner	30s	large domestic law firm	Moscow
	10/17/14				
Legal 7	3/12/09	independent lawyer	50s		Moscow
Legal 8	2/06/09	independent lawyer	30s		Moscow
	8/24/14				
Legal 9	2/21/09	in-house lawyer	30s	large domestic energy company	Moscow
Legal 10	3/18/09	in-house lawyer	30s	large domestic financial holding	Moscow
	10/09/14				
Legal 11	3/23/09	in-house lawyer	40s	large domestic steel company	Moscow
Legal 12	3/31/09	partner	40s	large intl. law firm	Moscow
	10/10/14				
Legal 13	3/31/09	associate	30s	large intl. law firm	Moscow
	10/08/14				
Legal 14	4/07/09	partner	40s	small domestic tax law firm	Moscow
Legal 15	5/07/09	in-house lawyer	20s	large intl. real estate firm	Moscow
Legal 16	5/19/09	head, dispute resolution	40s	large intl. law firm	Moscow
Legal 17	5/19/09	partner	30s	small domestic law firm	Moscow
Legal 18	5/21/09	associate	30s	large intl. law firm	Moscow
Legal 19	9/14/09	senior counsel	50s	large intl. law firm	Moscow
Legal 20	10/28/09	partner	30s	small domestic law firm	Moscow
Legal 21	11/05/09	partner	50s	large domestic tax law firm	Moscow
Legal 22	9/30/09	independent lawyer	40s		Barnaul
Security 1	2/14/09	owner	30s	business support Agency	Moscow
Security 2	3/16/09	Security consultant	50s	employer assoc. for Lawyers	Moscow
Security 3	3/17/09	manager, dispute resolution	30s	large intl. auditing firm	Moscow
Security 4	9/17/09	co-owner	50s	private Security Agency	Moscow
	10/23/14				
Security 5	9/18/09	co-owner	50s	private Security Agency	Moscow
Security 6	10/22/09	exec. director	50s	employer assoc. for Security specialists	Moscow
Security 7	11/22/09	in-house Security	–	large domestic energy company	Moscow
Security 8	11/26/09	general director	40s	private Security Agency	Moscow
Security 9	11/30/09	ind. Security consultant	30s		Moscow
Security 10	12/18/09	VP	40s	private Security Agency	Moscow
Security 11	4/02/10	chairman of board	40s	private Security Agency	Moscow
Security 12	9/30/09	director	30s	private Security Agency	Barnaul

2 Survey

The survey sample consists of 301 industrial and service firms from Moscow, St. Petersburg, and six regional cities: Ekaterinburg, Nizhniy Novgorod, Samara, Novosibirsk, Rostov-on-Don, and Kazan. These comprise eight of the ten largest Russian cities and provide a geographical reach from northwest Russia (St. Petersburg) to the south of Russia (Rostov-on-Don) and east out to Siberia (Novosibirsk). Firms were selected using stratified random sampling. The stratification was conducted to ensure that the sample would include a sufficient number of micro, small, medium, and large firms, as well as a sufficient number of firms in Moscow, St. Petersburg, and regional cities. Each cell was further divided evenly between industrial and service firms.

Table 2.1: Distribution of Respondents by Firm Size and City

	Micro	Small	Medium	Large	Very Large	Total
# of employees	< 15	15-100	101-250	251-500	> 500	
Moscow	16	19	21	23	22	101
St. Petersburg	11	15	16	16	17	75
Regional	22	22	28	26	27	125
Total	49	56	65	65	66	301

Table 2.1 shows the distribution of respondents by firm size and city. One hundred and one firms (33% of the sample) were from Moscow, 75 (25%) from St. Petersburg, and 125 (42%) from the six regional cities. One hundred and five firms (35% of the sample) had 100 or fewer employees, 130 (43%) had between 101 and 500 employees, and 66 (22%) had 501 or more employees. With respect to sectors, one hundred firms (33% of the sample) were in manufacturing. Other sectors with significant representation in the sample include 40 firms in the retail, wholesale, or repairs sector (13% of the sample), 27 in food and beverages (9%), 25 in transport and communications (8%), 24 in construction (8%), 18 in finance (6%), and 16 in hotels, restaurants, and tourism (5%). Enterprises in which the Government holds a controlling stake were intentionally excluded from the sample.

The response rate for the survey was 41 percent. Survey-related interviews were conducted face-to-face during June and July 2010 by interviewers from the Russian survey-research firm Bashkirova and Partners with either the firm's owner, general director, deputy general director, or chief financial officer. All questions were close-ended.

3 Collecting Data on Sensitive Topics

Research on sensitive topics, such as illegal activities, entails challenges. Firms that are most likely to engage in activities outside of the law may be less likely to participate in the research. Among participants, there may be hesitancy to provide truthful answers. While these concerns cannot be ignored, they also should not be over-exaggerated. First, many types of unlawful behavior in countries such as Russia are open secrets that are more culturally appropriate to discuss than imagined by outside researchers. This observation is supported by other analysts. For example, Daniel Kaufmann, formerly one of the World Bank’s foremost experts on corruption and the rule of law, has concluded that “With appropriate survey instruments and interviewing techniques, respondents are willing to discuss corruption with remarkable candor” (Kaufmann et al., 2001). Second, the magnitude of many of the changes examined in this article is overwhelming. For example, as many as half of all firms reported contact with criminal protection rackets in surveys conducted in the 1990s, while fewer than 10 percent report contact in recent surveys. Unless firms have become *dramatically* less inclined to tell the truth over time, a genuine transformation has occurred. Thus, even if surveys provide rough estimates of difficult-to-measure illegal activities that in some cases may be downwardly biased, large changes over time are informative indicators.

Multiple steps nevertheless were taken to ameliorate concerns about the sensitive nature of the research. Following techniques used in World Bank surveys on corruption, interview and survey questions were phrased in an indirect manner designed to elicit information without requiring respondents to incriminate themselves. For example, respondents were asked question such as “Can you estimate how frequently a *typical firm* in your line of business makes protection payments?” Additionally, the fact that multiple methods – in-depth interviews, survey research, and the collection of objective data such as court caseload statistics – lead to similar conclusions indicates the validity of the findings. Moreover, these approaches complement each other. Whereas larger scale surveys offer insights into the generalizability of the findings, in-depth interviewing allows respondents to answer sensitive questions using non-incriminating gestures and “codewords” (e.g., referring to bribes as “fines” while using hand gestures to put the word in quotation marks).

4 Formal Proofs

Proposition 1: Let $\underline{\alpha} = 2\beta(1 - q) + \gamma$ and $\bar{\alpha} = \frac{\beta}{2q}(1 - q) + \gamma$. Then:

1. For any $\alpha < \underline{\alpha}$, the unique NE for the game is $s_i^* = I$ for all firms $i \in \mathcal{I}$.
2. For any $\alpha \in [\underline{\alpha}, \bar{\alpha})$, there exists a NE in which $s_i^* = I$ for all firms $i \in \mathcal{I}$.

Proof. To prove part 1 it suffices to show that strategy I strictly dominates strategy L for all firms $i \in \mathcal{I}$ when $\alpha < \underline{\alpha}$. Define $U_i(s_j, s_k)$ as the expected utility of firm i using the strategy s_j against another firm using strategy s_k . I strictly dominates strategy L for all firms $i \in \mathcal{I}$ when

$$\begin{aligned} U_i(L, L) &< U_i(I, L) \\ (\alpha - \gamma)\frac{V}{2} &< \beta(1 - q)V \\ \alpha &< 2\beta(1 - q) + \gamma = \underline{\alpha}. \end{aligned}$$

and

$$\begin{aligned} U_i(L, I) &< U_i(I, I) \\ q(\alpha - \gamma)V &< \beta(1 - q)\frac{V}{2} \\ \alpha &< \frac{\beta}{2q}(1 - q) + \gamma. \end{aligned}$$

By assumption (see footnote 15 of the article text), $q < \frac{1}{4}$, and thus $\frac{\beta}{2q}(1 - q) + \gamma > 2\beta(1 - q) + \gamma = \underline{\alpha}$. So, if $\alpha \leq \underline{\alpha}$, then $\alpha < \frac{\beta}{2q}(1 - q) + \gamma$, and thus $U_i(L, I) < U_i(I, I)$. Because I is a strictly dominant strategy for all firms given $\alpha < \underline{\alpha}$, the game has a unique NE in which both firms choose strategy I .

To prove part 2 it suffices to show that when $\alpha \in [\underline{\alpha}, \bar{\alpha})$, then $U_i(L, I) < U_i(I, I)$, which will be true when

$$\begin{aligned} U_i(L, I) &< U_i(I, I) \\ q(\alpha - \gamma)V &< \beta(1 - q)\frac{V}{2} \\ \alpha &< \frac{\beta}{2q}(1 - q) + \gamma = \bar{\alpha}. \end{aligned}$$

Thus, when $\alpha < \bar{\alpha}$ and all firms choose I (i.e., when $\lambda = 0$), the payoff to I is greater than the payoff to L . Since no firm can increase its payoff by changing strategies, $\lambda = 0$ is a NE. \square

Proposition 2: Given q, β and γ , let $\alpha \in [\underline{\alpha}, \bar{\alpha})$, where $\underline{\alpha}$ and $\bar{\alpha}$ are as defined in Proposition

1. Suppose initially that $\lambda = 0$. Then:

1. For any $\hat{\alpha} \in [\underline{\alpha}, \bar{\alpha}]$ and $\hat{\gamma} \leq \gamma$, there exists a $\hat{\beta}$ such that if β declines to $\hat{\beta}$ for a portion of firms $\omega \geq \lambda^*$, then $\lambda = \lambda^*$ or $\lambda = 1$ will be an equilibrium.
2. For any $\hat{\alpha} \in [\underline{\alpha}, \bar{\alpha}]$ and $\hat{\beta} \leq \beta$, there exists a $\hat{\gamma}$ such that if γ declines to $\hat{\gamma}$ for a portion of firms $\omega \geq \lambda^*$, then $\lambda = \lambda^*$ or $\lambda = 1$ will be an equilibrium.

Proof. Note first that for $\lambda \in (0, 1)$, firm i 's expected payoff from a legal strategy is

$$U_i(L; \lambda) = \lambda(\alpha - \gamma)\frac{V}{2} + (1 - \lambda)[q(\alpha - \gamma)V]$$

and expected payoff from an illegal strategy is

$$U_i(I; \lambda) = \lambda(1 - q)\beta V + (1 - \lambda)(1 - q)\frac{\beta V}{2}$$

To prove part 1, it is first necessary to show that given a sufficiently large decline in illegal strategies' effectiveness for some group of firms j comprising a proportion ω of all firms, these firms will adopt legal strategies even when all other firms use illegal strategies. Formally, we want to show that as $\beta \rightarrow 0$ for firms in group j , then $U_j(L; \lambda = 0) \geq U_j(I; \lambda = 0)$, which clearly is true given that as $\beta \rightarrow 0$, expected payoffs to legal strategies $U_j(L; \lambda = 0) \rightarrow q(\alpha - \gamma)V > 0$, while as $\beta \rightarrow 0$, expected payoffs to illegal strategies $U_j(I; \lambda = 0) \rightarrow 0$. Thus, holding q, γ , and α constant and assuming $\lambda = 0$, if β declines sufficiently for some proportion of firms ω , these firms will switch from illegal to legal strategies.

Next, define λ^* as the proportion of firms using legal strategies such that $U_i(L; \lambda^*) = U_i(I; \lambda^*)$ (see Equation 1 in the article text). If $\omega = \lambda^*$, then $\lambda = \lambda^*$ must be an equilibrium. Suppose not. Then for some firm k , it must be true that switching strategies improves firm k 's expected payoff. But then given the strategy profile λ^* , it is not possible that $U_i(L; \lambda^*) = U_i(I; \lambda^*)$. Finally, note that when $\omega > \lambda^*$, then by the definition of λ^* it is the case that $U_i(L; \lambda = \omega) > U_i(I; \lambda = \omega)$. To see that when $U_i(L; \lambda = \omega) > U_i(I; \lambda = \omega)$, then $\lambda = 1$ must be an equilibrium, note that $U_i(L, L) \geq U_i(I, L)$ for all firms i when $\alpha \geq \underline{\alpha}$:

$$\begin{aligned} U_i(L, L) &\geq U_i(I, L) \\ (\alpha - \gamma)\frac{V}{2} &\geq (1 - q)\beta V \\ \alpha &\geq 2\beta(1 - q) + \gamma = \underline{\alpha}. \end{aligned}$$

Because the expected utility of strategy L is greater than the expected utility of strategy I when all firms choose L and given $\alpha \geq \underline{\alpha}$, it must be true that $\lambda = 1$ is a NE.

To prove part 2, it is first necessary to show that given a sufficiently large decline in demand-side barriers for some group j comprising a proportion ω of all firms, these firms will adopt legal strategies even when all other firms use illegal strategies. Formally, we want

to show that as $\gamma \rightarrow 0$ for firms in group j , then $U_j(L; \lambda = 0) \geq U_j(I; \lambda = 0)$. Note that as $\gamma \rightarrow 0$, then $U_j(L; \lambda = 0) \rightarrow q\alpha V$ while $U_j(I; \lambda = 0) = (1 - q)\frac{\beta V}{2}$ remains unchanged. It follows that $U_j(L; \lambda = 0) \geq U_j(I; \lambda = 0)$ when $\alpha \geq \frac{\beta}{2q}(1 - q)$. Note that:

$$\begin{aligned} \alpha &\geq \underline{\alpha} = 2\beta(1 - q) + \gamma \\ &> 2\beta(1 - q) + \left(\frac{1}{2q} - 2\right)(1 - q)\beta \\ &> \frac{\beta}{2q}(1 - q) \end{aligned}$$

where the second inequality follows from the assumption that $\gamma > \left(\frac{1}{2q} - 2\right)(1 - q)\beta$ (see footnote 18 of the article text). Thus, holding q , β , and α constant and assuming $\lambda = 0$, if γ declines sufficiently for some proportion of firms ω , these firms will switch from illegal to legal strategies.

Finally, the argument for why $\lambda = \lambda^*$ or $\lambda = 1$ must be an equilibrium strategy profile when $\omega \geq \lambda^*$ is equivalent to the argument in the proof of part 1.

□

5 Regression Analyses

5.1 Multiple Imputation

Missing data were multiply imputed for all regression analyses presented in the article using the AMELIA II package for R (Honaker et al., 2011). As King et al. (2001) have shown, when data are not missing completely at random, listwise deletion is always inefficient and often can lead to biased inference. With the exception of rare circumstances, multiple imputation therefore is preferable to listwise deletion.

Multiple imputation leverages data from other observations in the dataset to impute values for missing data. To capture the uncertainty regarding how well the imputed data represents the true values of missing data, it utilizes multiple imputed datasets, in the current case 10. The imputation model used all variables included in the analyses to help predict missing values. Regression coefficients displayed in the figures and tables in the main article and in the tables below, with the exception of the results shown in Section 5.5, are the mean of these analyses on each of the 10 imputed datasets, while standard errors capture sample variance within each imputed dataset as well as variance across datasets. The analyses in Section 5.5 show that listwise deletion produces very similar results.

5.2 Descriptive Statistics

Table 5.2.1: Descriptive Statistics – Dependent Variables

Respondents' likeliness of using a particular strategy to respond to a property or debt dispute on a scale of 1 to 7, where 1 means "highly unlikely" and 7 means "highly likely"

Variables	N	Mean	SD	Min	Max
<i>Property Disputes</i>					
Lawyers (out of court)	297	6.04	1.50	1	7
Courts	293	5.69	1.79	1	7
Law enforcement (official)	295	5.18	1.98	1	7
Bureaucrats (official)	290	4.57	2.11	1	7
Courts (with connections)	268	4.33	2.24	1	7
Law enforcement (unofficial)	280	3.78	2.19	1	7
Bureaucrats (unofficial)	281	3.63	2.18	1	7
Internal Security service	272	3.29	2.26	1	7
Private Security	278	2.21	1.77	1	7
Criminal racket	272	1.87	1.57	1	7
<i>Debt Disputes</i>					
Lawyers (out of court)	301	6.31	1.27	1	7
Courts	292	5.86	1.60	1	7
Law enforcement (official)	298	4.83	2.24	1	7
Bureaucrats (official)	294	3.99	2.18	1	7
Courts (with connections)	268	4.19	2.25	1	7
Law enforcement (unofficial)	288	3.65	2.19	1	7
Bureaucrats (unofficial)	286	3.37	2.16	1	7
Internal Security service	274	3.22	2.27	1	7
Private Security	278	2.09	1.71	1	7
Criminal racket	277	1.75	1.38	1	7

Note: See Table 1 in the main article for exact wording of the property and debt dispute scenarios.

Table 5.2.2: Descriptive Statistics – Independent & Control Variables

Variables	Description	N	Mean	SD	Min	Max
Others Unlawful	1 if respondent disagrees that other firms seek to follow the law, 0 otherwise	299	0.34	0.47	0	1
Tax Violator	1 if firm reports less than %90 of payroll expenses for tax purposes, 0 otherwise	167	0.32	0.47	0	1
Consolidated	1 if firm has single owner or owner with controlling packet of shares, 0 otherwise	284	0.73	0.45	0	1
Privatized	1 if Privatized, 0 if created de novo	301	0.26	0.44	0	1
Firm Age	founded or Privatized in 1 = last 3 years; 2 = last 5 years; 4 = last 10 years; 5 = last 15 years; 6 = more than 15 years ago	296	4.42	1.37	1	6
Gov. Owned	1 if firm has 10 or more percent Government ownership stake, 0 otherwise	293	0.09	0.29	0	1
Foreign Owned	1 if firm has 10 or more percent foreign ownership stake, 0 otherwise	290	0.10	0.30	0	1
Bus. Assoc.	1 if firm is member of a business association, 0 otherwise	301	0.41	0.49	0	1
Legal Ed.	1 if respondent has legal degree, 0 otherwise	301	0.13	0.34	0	1
Rights Violated	1 if firm experienced violation of its legal rights in last 3 years, 0 otherwise	290	0.67	0.47	0	1
Litigated	1 if firm has been to court in last 3 years, 0 otherwise	292	0.47	0.50	0	1
Age	age of respondent	301	43.54	11	22	76
Male	1 if male, 0 if female	301	0.48	0.50	0	1
City dummies	Ekaterinburg (excluded), Kazan, Moscow, Nizhniy Novgorod, Novosibirsk, Rostov-on-Don, Samara, St. Petersburg	301	–	–	–	–
Sector dummies	manufacturing (excluded); construction; food & beverage; transport & communication; wholesale, retail & repairs; real estate; hotels, restaurants & tourism; consulting & online business; financial services; other	301	–	–	–	–
Firm size dummies	< 101 employees (excluded), 101-250, 251-500, > 500	301	–	–	–	–
Firm finances dummies	bad (excluded), satisfactory, good, excellent	301	–	–	–	–
Job title dummies	owner (excluded), general director, assistant director, finance director, other	301	–	–	–	–

5.3 Ordered Logit Regressions

The following analyses show that regression results presented in the article are qualitatively similar when ordered logit is used in place of OLS.

Table 5.3.1: Regression Results – Property Dispute Scenario

Ordered Logit with Multiple Imputation

	Lawyers	Courts	Law Enf.	Gov. Officials	Courts	Law Enf.	Gov. Officials	Criminal	Private Sec.	Internal
	(formal)	(formal)	(formal)	(formal)	(informal)	(informal)	(informal)	Rackets	Agency	Security
Tax Violator	-0.65 (0.40)	-0.82* (0.38)	-0.35 (0.36)	-0.22 (0.36)	0.45 (0.33)	0.93* (0.36)	1.04** (0.35)	1.19** (0.41)	0.70† (0.37)	0.09 (0.35)
Others Unlawful	-0.69* (0.29)	-0.62* (0.28)	-0.35 (0.26)	-0.64* (0.25)	0.60* (0.27)	0.61* (0.26)	0.26 (0.26)	0.87** (0.34)	0.32 (0.29)	0.29 (0.26)
Privatized	-1.03† (0.59)	-0.45 (0.60)	-1.29* (0.57)	-0.29 (0.51)	0.36 (0.52)	-0.17 (0.52)	0.25 (0.53)	-2.33* (1.14)	-1.84** (0.69)	0.38 (0.57)
Consolidated	0.05 (0.42)	0.02 (0.41)	-0.67† (0.40)	-0.04 (0.36)	-0.06 (0.38)	-0.71† (0.38)	-0.30 (0.39)	0.31 (0.50)	-0.37 (0.41)	-0.28 (0.41)
Privatized*Consolidated	0.38 (0.68)	0.34 (0.66)	0.38 (0.63)	0.31 (0.58)	-1.26* (0.62)	-0.53 (0.59)	-0.89 (0.62)	1.35 (1.20)	0.31 (0.83)	-0.75 (0.68)
Firm Age	0.23† (0.12)	0.40*** (0.12)	0.13 (0.11)	0.12 (0.10)	0.02 (0.12)	0.07 (0.11)	-0.08 (0.11)	0.08 (0.14)	0.13 (0.14)	0.00 (0.11)
Foreign Owned	0.12 (0.48)	1.22* (0.51)	-0.22 (0.41)	-0.52 (0.42)	0.42 (0.42)	0.29 (0.40)	0.10 (0.42)	0.71 (0.55)	0.34 (0.53)	0.10 (0.41)
Gov. Owned	0.02 (0.50)	0.41 (0.53)	-0.19 (0.43)	0.29 (0.46)	-0.10 (0.45)	-0.69 (0.45)	-0.43 (0.46)	-0.02 (0.72)	-0.17 (0.61)	-0.27 (0.47)
Bus. Assoc.	0.23 (0.32)	-0.28 (0.30)	0.72** (0.28)	0.78** (0.27)	0.45 (0.27)	0.28 (0.27)	0.27 (0.28)	0.32 (0.41)	0.11 (0.31)	0.58* (0.28)
Rights Violated	0.11 (0.34)	0.40 (0.32)	0.27 (0.29)	0.23 (0.29)	0.41 (0.29)	0.53† (0.31)	0.39 (0.30)	0.41 (0.38)	0.41 (0.35)	0.35 (0.32)
Litigated	0.98** (0.38)	0.50 (0.35)	0.91** (0.32)	-0.20 (0.31)	0.24 (0.31)	-0.05 (0.31)	-0.20 (0.31)	-0.46 (0.43)	-0.45 (0.37)	-0.06 (0.34)
Legal Ed.	-0.19 (0.44)	0.11 (0.45)	0.34 (0.42)	0.43 (0.38)	0.07 (0.40)	0.29 (0.39)	0.71† (0.42)	0.93† (0.52)	0.38 (0.47)	0.41 (0.41)
Age	0.00 (0.01)	0.03* (0.02)	-0.02† (0.01)	-0.03* (0.01)	0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	-0.08*** (0.02)	-0.03* (0.02)	-0.01 (0.01)
Male	0.44 (0.30)	0.28 (0.29)	0.17 (0.27)	-0.00 (0.26)	0.43 (0.27)	0.10 (0.27)	0.28 (0.27)	-0.52 (0.37)	0.35 (0.32)	-0.02 (0.28)
1 2	-4.13** (1.41)	-0.33 (1.29)	-6.81*** (1.29)	-5.26*** (1.21)	1.30 (1.14)	-1.20 (1.12)	-0.80 (1.15)	-2.69 (1.67)	-1.32 (1.38)	-2.12† (1.21)
2 3	-3.61** (1.40)	0.17 (1.28)	-6.05*** (1.28)	-4.60*** (1.21)	1.73 (1.14)	-0.50 (1.12)	-0.24 (1.15)	-1.79 (1.67)	-0.76 (1.38)	-1.58 (1.22)
3 4	-2.84* (1.38)	0.68 (1.28)	-5.53*** (1.28)	-4.04*** (1.20)	2.21† (1.14)	0.01 (1.12)	0.25 (1.15)	-1.33 (1.66)	-0.02 (1.38)	-1.23 (1.22)
4 5	-2.21 (1.38)	1.49 (1.27)	-4.69*** (1.27)	-3.17** (1.19)	2.93* (1.14)	0.83 (1.12)	1.13 (1.15)	-0.15 (1.66)	0.79 (1.39)	-0.33 (1.22)
5 6	-1.31 (1.37)	2.28† (1.27)	-4.06** (1.26)	-2.43* (1.19)	3.62** (1.16)	1.60 (1.12)	1.89 (1.16)	0.24 (1.65)	1.52 (1.39)	0.28 (1.22)
6 7	-0.30 (1.36)	3.25* (1.28)	-3.28** (1.25)	-1.74 (1.18)	4.43*** (1.16)	2.24* (1.13)	2.62* (1.16)	1.35 (1.68)	2.37† (1.40)	0.81 (1.21)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
N	301	301	301	301	301	301	301	301	301	301

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Standard errors in parentheses.

Table 5.3.2: Regression Results – Debt Dispute Scenario

Ordered Logit with Multiple Imputation

	Lawyers	Courts	Law Enf.	Gov. Officials	Courts	Law Enf.	Gov. Officials	Criminal	Private Sec.	Internal
	(formal)	(formal)	(formal)	(formal)	(informal)	(informal)	(informal)	Rackets	Agency	Security
Tax Violator	-0.14 (0.39)	-0.94* (0.39)	0.03 (0.33)	0.05 (0.31)	0.61† (0.33)	1.10** (0.37)	1.35*** (0.36)	1.20** (0.41)	0.87* (0.44)	0.23 (0.33)
Others Unlawful	-0.26 (0.30)	-0.48† (0.28)	0.03 (0.25)	-0.46† (0.26)	0.66** (0.26)	0.50* (0.26)	0.09 (0.26)	0.69* (0.31)	0.59† (0.33)	0.25 (0.26)
Privatized	-0.63 (0.64)	-0.79 (0.62)	0.03 (0.53)	-0.07 (0.50)	0.04 (0.52)	0.21 (0.52)	0.33 (0.54)	-1.89* (0.94)	-2.00* (0.85)	0.33 (0.54)
Consolidated	-0.26 (0.47)	-0.71† (0.42)	-0.19 (0.38)	-0.16 (0.37)	-0.42 (0.37)	-0.98* (0.38)	-0.37 (0.39)	-0.03 (0.48)	-0.46 (0.45)	-0.26 (0.40)
Privatized*Consolidated	0.52 (0.75)	0.68 (0.69)	-0.27 (0.60)	-0.11 (0.58)	-0.65 (0.59)	-0.14 (0.59)	-0.94 (0.62)	0.37 (1.02)	0.38 (0.99)	-0.34 (0.64)
Firm Age	0.14 (0.13)	0.22† (0.12)	0.17 (0.10)	0.14 (0.10)	0.02 (0.11)	-0.06 (0.11)	-0.06 (0.12)	0.13 (0.15)	0.00 (0.13)	0.11 (0.12)
Foreign Owned	0.24 (0.51)	0.55 (0.48)	-0.31 (0.41)	0.09 (0.40)	0.41 (0.41)	-0.07 (0.42)	0.16 (0.42)	0.28 (0.50)	0.07 (0.51)	0.07 (0.39)
Gov. Owned	0.18 (0.58)	0.45 (0.58)	-0.14 (0.46)	0.38 (0.44)	-0.31 (0.45)	-0.75 (0.46)	-0.49 (0.47)	0.13 (0.62)	0.25 (0.60)	0.22 (0.46)
Bus. Assoc.	-0.64† (0.34)	-0.20 (0.31)	0.03 (0.27)	-0.07 (0.27)	0.27 (0.29)	0.30 (0.27)	0.07 (0.28)	0.14 (0.36)	0.36 (0.33)	0.53† (0.27)
Rights Violated	0.10 (0.36)	0.38 (0.33)	0.64* (0.30)	0.03 (0.30)	0.46 (0.29)	-0.03 (0.31)	0.05 (0.31)	0.57 (0.36)	0.76* (0.37)	0.30 (0.32)
Litigated	0.33 (0.39)	0.14 (0.35)	-0.09 (0.32)	-0.10 (0.31)	0.03 (0.31)	-0.05 (0.33)	0.05 (0.30)	-0.16 (0.41)	-0.37 (0.39)	-0.43 (0.33)
Legal Ed.	0.15 (0.50)	0.73 (0.49)	0.61 (0.42)	0.01 (0.38)	-0.01 (0.40)	0.69† (0.41)	0.60 (0.40)	1.02* (0.50)	0.68 (0.49)	0.92* (0.40)
Age	-0.00 (0.02)	0.01 (0.02)	-0.02† (0.01)	-0.01 (0.01)	0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.04* (0.02)	-0.04* (0.02)	-0.01 (0.01)
Male	0.20 (0.32)	0.50 (0.31)	-0.23 (0.27)	-0.13 (0.26)	0.53† (0.27)	-0.20 (0.26)	-0.09 (0.27)	-0.35 (0.34)	-0.30 (0.34)	-0.34 (0.29)
1 2	-4.55** (1.50)	-2.23 (1.36)	-4.30*** (1.24)	-3.92*** (1.15)	1.81 (1.16)	-2.54* (1.23)	-1.19 (1.28)	-1.58 (1.57)	-3.16* (1.45)	-1.53 (1.25)
2 3	-3.95** (1.46)	-1.47 (1.35)	-3.65** (1.23)	-3.15** (1.14)	2.31* (1.17)	-1.79 (1.23)	-0.55 (1.28)	-0.60 (1.56)	-2.32 (1.45)	-0.99 (1.25)
3 4	-3.10* (1.44)	-1.03 (1.36)	-3.29** (1.23)	-2.68* (1.14)	2.72* (1.17)	-1.23 (1.22)	0.03 (1.29)	0.06 (1.55)	-1.55 (1.45)	-0.64 (1.24)
4 5	-2.37† (1.43)	-0.14 (1.35)	-2.69* (1.23)	-1.74 (1.14)	3.61** (1.18)	-0.42 (1.22)	1.08 (1.30)	0.93 (1.57)	-0.47 (1.46)	0.14 (1.25)
5 6	-1.39 (1.42)	0.94 (1.34)	-2.12† (1.23)	-1.17 (1.14)	4.11*** (1.19)	0.18 (1.23)	1.65 (1.30)	1.66 (1.57)	-0.18 (1.46)	0.73 (1.25)
6 7	-0.61 (1.42)	1.91 (1.34)	-1.40 (1.22)	-0.62 (1.13)	4.98*** (1.20)	0.96 (1.23)	2.19† (1.31)	3.50* (1.70)	1.11 (1.48)	1.50 (1.24)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
N	301	301	301	301	301	301	301	301	301	301

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Standard errors in parentheses.

5.4 Regressions Using Alternative Indicators

The following analyses show that the regression results presented in the article are robust when alternative measures of tax compliance or expectations about other firms' strategies are used.

For the "Tax Violator" variable, the regressions in the article use a dichotomous variable that equals 1 if respondents indicate that a typical firm in their line of business reports less than 90 percent of sales revenue for tax purposes, and 0 otherwise. The regressions in Tables 5.4.1 and 5.4.2 instead use a dichotomous variable that equals 1 if respondents indicate that a typical firm in their line of business reports less than 75 percent of sales revenue for tax purposes, and 0 otherwise. The regressions in Tables 5.4.3 and 5.4.4 instead use an ordinal variable in which 1 represents respondents indicating that a typical firm in their line of business reports more than 90 percent of sales revenue for tax purposes, 2 represents 75 to 90 percent of sales revenue reported, 3 represents 50 to 74 percent, 4 represents 25 to 49 percent, 5 represents 10 to 24 percent, and 6 represents less than 10 percent.

For the "Others Unlawful" variable, the regressions in the article use a dichotomous variable that equals 1 if the respondent strongly disagrees, disagrees, or neither agrees nor disagrees that other firms seeks to follow the law, and 0 otherwise. The regressions in Tables 5.4.5 and 5.4.6 instead use an ordinal variable with five categories: strongly disagree, disagree, neither disagree nor agree, agree, and strongly agree.

Table 5.4.1: Regression Results – Property Dispute Scenario

OLS with Multiple Imputation – Dichotomous Tax Variable with 75% Threshold

	Lawyers	Courts	Law Enf.	Gov. Officials	Courts	Law Enf.	Gov. Officials	Criminal	Private Sec.	Internal
	(formal)	(formal)	(formal)	(formal)	(informal)	(informal)	(informal)	Rackets	Agency	Security
Tax Violator	-0.23 (0.24)	-0.60* (0.29)	-0.15 (0.37)	-0.21 (0.36)	0.44 (0.42)	1.07* (0.42)	1.03* (0.43)	0.66* (0.31)	0.17 (0.40)	0.21 (0.35)
Others Unlawful	-0.43* (0.19)	-0.43† (0.22)	-0.34 (0.25)	-0.69* (0.28)	0.68* (0.29)	0.69** (0.27)	0.39 (0.26)	0.53* (0.21)	0.30 (0.23)	0.35 (0.28)
Privatized	-0.31 (0.41)	-0.20 (0.43)	-1.14* (0.51)	-0.25 (0.54)	0.41 (0.58)	-0.30 (0.58)	0.07 (0.56)	-0.48 (0.35)	-0.90* (0.38)	0.49 (0.59)
Consolidated	0.30 (0.31)	0.08 (0.35)	-0.58 (0.37)	0.05 (0.40)	0.11 (0.42)	-0.70† (0.41)	-0.35 (0.42)	0.16 (0.27)	-0.15 (0.32)	-0.18 (0.37)
Privatized*Consolidated	-0.00 (0.47)	0.30 (0.48)	0.31 (0.62)	0.27 (0.63)	-1.24† (0.68)	-0.46 (0.66)	-0.62 (0.63)	-0.09 (0.35)	0.07 (0.41)	-0.76 (0.70)
Firm Age	0.11 (0.08)	0.23* (0.11)	0.12 (0.10)	0.11 (0.11)	0.00 (0.13)	0.08 (0.12)	-0.05 (0.13)	0.06 (0.08)	0.11 (0.09)	0.04 (0.12)
Foreign Owned	0.17 (0.27)	0.75* (0.31)	-0.27 (0.40)	-0.60 (0.44)	0.33 (0.44)	0.11 (0.44)	-0.01 (0.43)	0.50 (0.35)	0.34 (0.41)	0.19 (0.44)
Gov. Owned	-0.01 (0.33)	0.28 (0.34)	-0.04 (0.38)	0.27 (0.43)	-0.00 (0.46)	-0.54 (0.43)	-0.27 (0.50)	0.17 (0.35)	-0.00 (0.35)	-0.24 (0.50)
Bus. Assoc.	0.16 (0.21)	0.02 (0.22)	0.71** (0.25)	0.90*** (0.27)	0.59† (0.31)	0.24 (0.27)	0.27 (0.28)	0.03 (0.23)	0.04 (0.24)	0.58† (0.32)
Rights Violated	0.03 (0.22)	0.34 (0.28)	0.29 (0.29)	0.30 (0.31)	0.32 (0.31)	0.51 (0.33)	0.33 (0.32)	0.14 (0.22)	0.21 (0.27)	0.36 (0.32)
Litigated	0.47† (0.28)	0.31 (0.30)	0.65* (0.30)	-0.26 (0.32)	0.18 (0.35)	-0.03 (0.34)	-0.23 (0.33)	-0.32 (0.22)	-0.46† (0.25)	-0.07 (0.36)
Legal Ed.	-0.20 (0.26)	0.20 (0.31)	0.19 (0.39)	0.41 (0.38)	0.26 (0.44)	0.37 (0.37)	0.88* (0.40)	0.73* (0.33)	0.22 (0.29)	0.41 (0.38)
Age	0.00 (0.01)	0.03* (0.01)	-0.02† (0.01)	-0.02† (0.01)	0.01 (0.02)	-0.01 (0.01)	0.00 (0.01)	-0.03*** (0.01)	-0.02† (0.01)	-0.01 (0.01)
Male	0.24 (0.20)	0.20 (0.23)	0.07 (0.26)	-0.01 (0.26)	0.48 (0.30)	0.15 (0.28)	0.37 (0.27)	-0.19 (0.21)	0.31 (0.23)	-0.09 (0.29)
Constant	5.52*** (1.00)	3.16** (1.09)	7.98*** (1.11)	6.82*** (1.22)	1.11 (1.28)	3.35** (1.25)	2.95* (1.24)	3.47*** (0.81)	3.80*** (1.05)	4.30*** (1.18)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
N	301	301	301	301	301	301	301	301	301	301
R-sq.	0.25	0.30	0.26	0.27	0.27	0.32	0.30	0.35	0.29	0.30
Adj. R-sq.	0.13	0.19	0.14	0.16	0.15	0.21	0.19	0.25	0.19	0.19

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 5.4.2: Regression Results – Debt Dispute Scenario

OLS with Multiple Imputation – Dichotomous Tax Variable with 75% Threshold

	Lawyers	Courts	Law Enf.	Gov. Officials	Courts	Law Enf.	Gov. Officials	Criminal	Private Sec.	Internal
	(formal)	(formal)	(formal)	(formal)	(informal)	(informal)	(informal)	Rackets	Agency	Security
Tax Violator	0.05 (0.20)	-0.47* (0.23)	0.11 (0.37)	0.33 (0.35)	0.60 (0.38)	1.02* (0.42)	1.12** (0.42)	0.59* (0.28)	0.32 (0.38)	0.15 (0.35)
Others Unlawful	-0.20 (0.17)	-0.25 (0.19)	0.10 (0.28)	-0.61* (0.28)	0.65* (0.29)	0.56* (0.27)	0.21 (0.25)	0.41* (0.17)	0.44* (0.21)	0.40 (0.27)
Privatized	-0.29 (0.34)	-0.32 (0.35)	0.00 (0.58)	-0.07 (0.55)	0.16 (0.58)	0.27 (0.58)	0.37 (0.57)	-0.63* (0.31)	-0.80* (0.38)	0.27 (0.56)
Consolidated	-0.09 (0.23)	-0.42 (0.26)	-0.25 (0.42)	-0.12 (0.41)	-0.28 (0.39)	-0.74† (0.42)	-0.25 (0.39)	-0.04 (0.25)	-0.40 (0.32)	-0.24 (0.34)
Privatized*Consolidated	0.36 (0.42)	0.48 (0.41)	-0.10 (0.70)	-0.11 (0.64)	-0.77 (0.68)	-0.43 (0.66)	-0.86 (0.63)	-0.04 (0.30)	0.19 (0.39)	-0.35 (0.67)
Firm Age	0.07 (0.08)	0.12 (0.10)	0.12 (0.11)	0.15 (0.11)	-0.03 (0.13)	-0.02 (0.13)	-0.04 (0.12)	0.11 (0.09)	0.03 (0.09)	0.12 (0.12)
Foreign Owned	0.04 (0.24)	0.40 (0.29)	-0.34 (0.44)	-0.00 (0.43)	0.34 (0.45)	-0.15 (0.45)	0.02 (0.42)	0.32 (0.29)	0.21 (0.34)	0.18 (0.42)
Gov. Owned	0.03 (0.34)	0.12 (0.37)	0.05 (0.47)	0.46 (0.44)	-0.20 (0.48)	-0.53 (0.48)	-0.25 (0.46)	0.10 (0.25)	0.08 (0.26)	0.22 (0.50)
Bus. Assoc.	-0.20 (0.16)	0.02 (0.19)	0.14 (0.29)	-0.08 (0.29)	0.44 (0.31)	0.11 (0.27)	0.01 (0.27)	-0.06 (0.19)	0.22 (0.22)	0.57† (0.32)
Rights Violated	-0.01 (0.19)	0.42† (0.23)	0.61† (0.33)	0.06 (0.33)	0.29 (0.33)	-0.11 (0.32)	0.00 (0.31)	0.23 (0.21)	0.36 (0.26)	0.24 (0.31)
Litigated	0.15 (0.19)	-0.16 (0.24)	-0.21 (0.35)	-0.19 (0.34)	0.05 (0.35)	-0.04 (0.36)	0.03 (0.33)	-0.12 (0.20)	-0.36 (0.23)	-0.32 (0.36)
Legal Ed.	0.06 (0.26)	0.32 (0.25)	0.70 (0.46)	0.13 (0.40)	0.25 (0.46)	0.83* (0.38)	0.72† (0.39)	0.59* (0.28)	0.44 (0.27)	1.04** (0.38)
Age	-0.00 (0.01)	0.01 (0.01)	-0.03† (0.01)	-0.01 (0.01)	0.01 (0.02)	-0.01 (0.01)	-0.01 (0.01)	-0.02* (0.01)	-0.01 (0.01)	-0.01 (0.01)
Male	0.03 (0.18)	0.32 (0.20)	-0.23 (0.28)	-0.22 (0.29)	0.54† (0.30)	-0.13 (0.28)	0.03 (0.27)	-0.17 (0.18)	-0.13 (0.21)	-0.36 (0.29)
Constant	5.88*** (0.84)	4.38*** (0.93)	6.76*** (1.29)	6.14*** (1.28)	1.08 (1.31)	4.44*** (1.30)	3.75** (1.28)	3.47*** (0.84)	4.83*** (1.01)	4.28*** (1.19)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
N	301	301	301	301	301	301	301	301	301	301
R-sq.	0.20	0.35	0.28	0.26	0.27	0.31	0.33	0.30	0.38	0.30
Adj. R-sq.	0.07	0.25	0.17	0.15	0.15	0.20	0.22	0.19	0.28	0.19

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 5.4.3: Regression Results – Property Dispute Scenario

OLS with Multiple Imputation – Ordinal Tax Variable

	Lawyers	Courts	Law Enf.	Gov. Officials	Courts	Law Enf.	Gov. Officials	Criminal	Private Sec.	Internal
	(formal)	(formal)	(formal)	(formal)	(informal)	(informal)	(informal)	Rackets	Agency	Security
Tax Violator	-0.14 [†]	-0.23*	-0.11	-0.10	0.14	0.30*	0.33*	0.34**	0.09	0.13
	(0.08)	(0.10)	(0.12)	(0.12)	(0.14)	(0.14)	(0.14)	(0.11)	(0.12)	(0.12)
Others Unlawful	-0.40*	-0.41 [†]	-0.31	-0.67*	0.67*	0.69**	0.37	0.46*	0.28	0.32
	(0.19)	(0.22)	(0.26)	(0.28)	(0.29)	(0.27)	(0.27)	(0.21)	(0.23)	(0.28)
Privatized	-0.31	-0.22	-1.14*	-0.25	0.43	-0.24	0.12	-0.47	-0.91*	0.49
	(0.40)	(0.43)	(0.51)	(0.54)	(0.58)	(0.58)	(0.55)	(0.34)	(0.38)	(0.59)
Consolidated	0.32	0.11	-0.56	0.07	0.09	-0.71 [†]	-0.38	0.10	-0.16	-0.20
	(0.31)	(0.34)	(0.37)	(0.40)	(0.42)	(0.41)	(0.41)	(0.26)	(0.32)	(0.38)
Privatized*Consolidated	-0.04	0.28	0.28	0.25	-1.23 [†]	-0.48	-0.61	-0.01	0.10	-0.71
	(0.47)	(0.48)	(0.62)	(0.63)	(0.69)	(0.66)	(0.63)	(0.35)	(0.41)	(0.71)
Firm Age	0.10	0.23*	0.12	0.11	-0.00	0.07	-0.05	0.08	0.11	0.05
	(0.08)	(0.11)	(0.10)	(0.11)	(0.13)	(0.12)	(0.13)	(0.08)	(0.09)	(0.12)
Foreign Owned	0.17	0.75*	-0.26	-0.60	0.34	0.14	0.01	0.50	0.35	0.19
	(0.27)	(0.31)	(0.40)	(0.44)	(0.44)	(0.43)	(0.43)	(0.34)	(0.41)	(0.44)
Gov. Owned	-0.00	0.30	-0.03	0.28	-0.02	-0.59	-0.31	0.15	-0.01	-0.26
	(0.32)	(0.34)	(0.38)	(0.43)	(0.45)	(0.43)	(0.49)	(0.34)	(0.35)	(0.50)
Bus. Assoc.	0.17	0.03	0.73**	0.90***	0.59 [†]	0.26	0.27	0.00	0.04	0.57 [†]
	(0.20)	(0.22)	(0.25)	(0.27)	(0.31)	(0.27)	(0.28)	(0.23)	(0.24)	(0.32)
Rights Violated	0.04	0.35	0.30	0.31	0.31	0.51	0.31	0.11	0.20	0.34
	(0.22)	(0.28)	(0.29)	(0.31)	(0.31)	(0.33)	(0.31)	(0.21)	(0.27)	(0.32)
Litigated	0.47 [†]	0.30	0.65*	-0.26	0.18	-0.03	-0.23	-0.31	-0.46 [†]	-0.06
	(0.28)	(0.29)	(0.30)	(0.32)	(0.35)	(0.34)	(0.34)	(0.21)	(0.25)	(0.36)
Legal Ed.	-0.21	0.20	0.18	0.40	0.25	0.35	0.87*	0.75*	0.23	0.42
	(0.26)	(0.31)	(0.39)	(0.38)	(0.44)	(0.37)	(0.40)	(0.33)	(0.29)	(0.38)
Age	0.00	0.03*	-0.02 [†]	-0.02 [†]	0.01	-0.01	0.00	-0.03***	-0.02 [†]	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Male	0.24	0.19	0.07	-0.01	0.49	0.17	0.38	-0.18	0.31	-0.09
	(0.20)	(0.23)	(0.26)	(0.26)	(0.30)	(0.28)	(0.27)	(0.20)	(0.23)	(0.29)
Constant	5.73***	3.48**	8.15***	6.96***	0.92	2.97*	2.52*	2.99***	3.69***	4.11***
	(1.01)	(1.11)	(1.13)	(1.24)	(1.30)	(1.29)	(1.27)	(0.84)	(1.09)	(1.19)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
N	301	301	301	301	301	301	301	301	301	301
R-sq.	0.25	0.30	0.26	0.27	0.26	0.31	0.29	0.39	0.29	0.30
Adj. R-sq.	0.14	0.20	0.15	0.16	0.15	0.20	0.19	0.29	0.19	0.20

[†] significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 5.4.4: Regression Results – Debt Dispute Scenario

OLS with Multiple Imputation – Ordinal Tax Variable

	Lawyers	Courts	Law Enf.	Gov. Officials	Courts	Law Enf.	Gov. Officials	Criminal	Private Sec.	Internal
	(formal)	(formal)	(formal)	(formal)	(informal)	(informal)	(informal)	Rackets	Agency	Security
Tax Violator	-0.01 (0.07)	-0.19* (0.08)	-0.02 (0.12)	0.05 (0.12)	0.23† (0.12)	0.32* (0.14)	0.41** (0.13)	0.29** (0.10)	0.16 (0.12)	0.21 (0.13)
Others Unlawful	-0.19 (0.17)	-0.23 (0.19)	0.12 (0.28)	-0.59* (0.29)	0.62* (0.29)	0.55* (0.27)	0.16 (0.26)	0.36* (0.17)	0.41* (0.21)	0.32 (0.28)
Privatized	-0.28 (0.34)	-0.33 (0.35)	0.02 (0.58)	-0.04 (0.55)	0.18 (0.57)	0.33 (0.58)	0.41 (0.56)	-0.63* (0.31)	-0.80* (0.37)	0.24 (0.55)
Consolidated	-0.08 (0.23)	-0.40 (0.25)	-0.24 (0.41)	-0.11 (0.41)	-0.30 (0.39)	-0.77† (0.41)	-0.29 (0.37)	-0.08 (0.26)	-0.42 (0.31)	-0.29 (0.34)
Privatized*Consolidated	0.34 (0.42)	0.45 (0.41)	-0.13 (0.69)	-0.14 (0.64)	-0.75 (0.68)	-0.43 (0.65)	-0.83 (0.61)	0.03 (0.30)	0.23 (0.39)	-0.26 (0.67)
Firm Age	0.07 (0.08)	0.12 (0.10)	0.11 (0.11)	0.15 (0.11)	-0.03 (0.13)	-0.02 (0.13)	-0.03 (0.12)	0.12 (0.09)	0.03 (0.09)	0.14 (0.12)
Foreign Owned	0.05 (0.24)	0.40 (0.29)	-0.33 (0.44)	0.00 (0.43)	0.35 (0.44)	-0.13 (0.45)	0.04 (0.41)	0.32 (0.29)	0.22 (0.33)	0.17 (0.42)
Gov. Owned	0.03 (0.34)	0.14 (0.36)	0.04 (0.47)	0.45 (0.44)	-0.22 (0.49)	-0.56 (0.48)	-0.29 (0.45)	0.08 (0.25)	0.06 (0.26)	0.21 (0.50)
Bus. Assoc.	-0.20 (0.16)	0.02 (0.19)	0.15 (0.29)	-0.07 (0.29)	0.43 (0.32)	0.12 (0.27)	0.00 (0.27)	-0.08 (0.19)	0.21 (0.22)	0.53† (0.32)
Rights Violated	-0.01 (0.19)	0.43† (0.22)	0.62† (0.33)	0.07 (0.33)	0.28 (0.33)	-0.13 (0.33)	-0.03 (0.31)	0.20 (0.20)	0.34 (0.26)	0.21 (0.31)
Litigated	0.15 (0.19)	-0.17 (0.24)	-0.21 (0.35)	-0.19 (0.34)	0.06 (0.35)	-0.03 (0.36)	0.04 (0.32)	-0.11 (0.20)	-0.36 (0.23)	-0.31 (0.36)
Legal Ed.	0.05 (0.26)	0.32 (0.25)	0.69 (0.46)	0.12 (0.40)	0.25 (0.46)	0.81* (0.39)	0.72† (0.40)	0.61* (0.28)	0.44† (0.27)	1.06** (0.38)
Age	-0.00 (0.01)	0.01 (0.01)	-0.03† (0.01)	-0.01 (0.01)	0.01 (0.02)	-0.01 (0.01)	-0.01 (0.01)	-0.02* (0.01)	-0.01 (0.01)	-0.01 (0.01)
Male	0.03 (0.18)	0.32 (0.20)	-0.23 (0.28)	-0.21 (0.29)	0.55† (0.30)	-0.11 (0.27)	0.05 (0.27)	-0.16 (0.17)	-0.13 (0.21)	-0.37 (0.28)
Constant	5.90*** (0.86)	4.65*** (0.94)	6.80*** (1.29)	6.09*** (1.30)	0.77 (1.34)	4.01*** (1.35)	3.19* (1.32)	3.06*** (0.84)	4.62*** (1.05)	3.96*** (1.18)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
N	301	301	301	301	301	301	301	301	301	301
R-sq.	0.20	0.36	0.28	0.26	0.27	0.31	0.33	0.33	0.39	0.31
Adj. R-sq.	0.07	0.26	0.17	0.15	0.16	0.20	0.23	0.23	0.29	0.20

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 5.4.5: Regression Results – Property Dispute Scenario

OLS with Multiple Imputation – Ordinal “Others Unlawful” Variable

	Lawyers	Courts	Law Enf.	Gov. Officials	Courts	Law Enf.	Gov. Officials	Criminal	Private Sec.	Internal
	(formal)	(formal)	(formal)	(formal)	(informal)	(informal)	(informal)	Rackets	Agency	Security
Tax Violator	-0.44 [†]	-0.57*	-0.26	-0.23	0.58	1.00**	1.09**	0.73**	0.47	0.08
	(0.24)	(0.29)	(0.34)	(0.34)	(0.35)	(0.36)	(0.36)	(0.25)	(0.29)	(0.35)
Others Unlawful	-0.14	-0.15	-0.18	-0.26	0.29 [†]	0.29 [†]	0.20	0.27**	0.07	0.17
	(0.10)	(0.12)	(0.15)	(0.16)	(0.17)	(0.15)	(0.15)	(0.10)	(0.12)	(0.15)
Privatized	-0.27	-0.19	-1.12*	-0.21	0.38	-0.32	0.06	-0.51	-0.95*	0.49
	(0.40)	(0.42)	(0.51)	(0.55)	(0.58)	(0.58)	(0.55)	(0.36)	(0.38)	(0.60)
Consolidated	0.36	0.14	-0.53	0.10	0.02	-0.81 [†]	-0.47	0.05	-0.21	-0.20
	(0.32)	(0.34)	(0.37)	(0.40)	(0.43)	(0.42)	(0.42)	(0.27)	(0.33)	(0.38)
Privatized*Consolidated	-0.10	0.25	0.27	0.19	-1.14 [†]	-0.37	-0.55	-0.00	0.18	-0.74
	(0.47)	(0.48)	(0.61)	(0.63)	(0.68)	(0.66)	(0.62)	(0.35)	(0.41)	(0.71)
Firm Age	0.11	0.24*	0.12	0.11	0.00	0.07	-0.06	0.06	0.11	0.04
	(0.08)	(0.10)	(0.10)	(0.11)	(0.13)	(0.12)	(0.12)	(0.08)	(0.09)	(0.12)
Foreign Owned	0.14	0.73*	-0.27	-0.65	0.37	0.16	-0.00	0.51	0.37	0.22
	(0.28)	(0.31)	(0.39)	(0.44)	(0.43)	(0.44)	(0.43)	(0.34)	(0.42)	(0.44)
Gov. Owned	0.04	0.35	-0.00	0.29	-0.07	-0.70	-0.44	0.06	-0.06	-0.26
	(0.34)	(0.36)	(0.39)	(0.44)	(0.45)	(0.46)	(0.49)	(0.32)	(0.36)	(0.50)
Bus. Assoc.	0.13	-0.03	0.69**	0.86**	0.64*	0.34	0.35	0.09	0.06	0.61 [†]
	(0.21)	(0.22)	(0.25)	(0.27)	(0.30)	(0.26)	(0.28)	(0.23)	(0.23)	(0.31)
Rights Violated	0.00	0.30	0.29	0.29	0.32	0.56 [†]	0.36	0.16	0.23	0.36
	(0.23)	(0.28)	(0.29)	(0.32)	(0.32)	(0.33)	(0.32)	(0.22)	(0.27)	(0.32)
Litigated	0.44	0.28	0.64*	-0.28	0.22	0.03	-0.17	-0.27	-0.44 [†]	-0.06
	(0.28)	(0.30)	(0.31)	(0.33)	(0.35)	(0.33)	(0.33)	(0.22)	(0.25)	(0.37)
Legal Ed.	-0.17	0.26	0.21	0.42	0.20	0.26	0.75 [†]	0.65*	0.19	0.39
	(0.27)	(0.32)	(0.39)	(0.38)	(0.44)	(0.39)	(0.41)	(0.31)	(0.29)	(0.38)
Age	0.00	0.03*	-0.02 [†]	-0.02 [†]	0.01	-0.01	0.00	-0.03***	-0.02 [†]	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Male	0.30	0.26	0.09	0.04	0.42	0.07	0.29	-0.24	0.24	-0.10
	(0.20)	(0.24)	(0.26)	(0.26)	(0.30)	(0.29)	(0.28)	(0.21)	(0.24)	(0.29)
Constant	5.66***	3.33**	8.27***	7.06***	0.73	2.99*	2.59*	3.07***	3.75***	4.14***
	(1.01)	(1.13)	(1.16)	(1.27)	(1.36)	(1.27)	(1.26)	(0.84)	(1.11)	(1.21)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
N	301	301	301	301	301	301	301	301	301	301
R-sq.	0.25	0.29	0.26	0.26	0.27	0.31	0.31	0.36	0.30	0.30
Adj. R-sq.	0.13	0.19	0.15	0.15	0.15	0.20	0.20	0.27	0.19	0.19

[†] significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 5.4.6: Regression Results – Debt Dispute Scenario

OLS with Multiple Imputation – Ordinal “Others Unlawful” Variable

	Lawyers	Courts	Law Enf.	Gov. Officials	Courts	Law Enf.	Gov. Officials	Criminal	Private Sec.	Internal
	(formal)	(formal)	(formal)	(formal)	(informal)	(informal)	(informal)	Rackets	Agency	Security
Tax Violator	-0.01 (0.21)	-0.52* (0.24)	0.06 (0.35)	0.10 (0.34)	0.74* (0.34)	1.10** (0.37)	1.32*** (0.34)	0.61** (0.21)	0.52† (0.28)	0.21 (0.36)
Others Unlawful	-0.08 (0.10)	-0.11 (0.11)	0.05 (0.15)	-0.24 (0.16)	0.27 (0.17)	0.22 (0.15)	0.05 (0.14)	0.23* (0.09)	0.21† (0.11)	0.15 (0.15)
Privatized	-0.27 (0.33)	-0.31 (0.34)	0.00 (0.57)	-0.02 (0.55)	0.13 (0.58)	0.26 (0.57)	0.35 (0.56)	-0.66* (0.32)	-0.85* (0.37)	0.24 (0.56)
Consolidated	-0.08 (0.24)	-0.37 (0.26)	-0.26 (0.42)	-0.09 (0.42)	-0.38 (0.39)	-0.86* (0.42)	-0.36 (0.38)	-0.12 (0.26)	-0.48 (0.32)	-0.28 (0.35)
Privatized*Consolidated	0.33 (0.42)	0.44 (0.40)	-0.09 (0.69)	-0.20 (0.63)	-0.67 (0.68)	-0.34 (0.65)	-0.78 (0.61)	0.02 (0.30)	0.28 (0.39)	-0.29 (0.68)
Firm Age	0.07 (0.08)	0.12 (0.10)	0.12 (0.11)	0.14 (0.11)	-0.03 (0.13)	-0.03 (0.12)	-0.04 (0.12)	0.11 (0.08)	0.03 (0.09)	0.12 (0.12)
Foreign Owned	0.03 (0.24)	0.39 (0.29)	-0.33 (0.44)	-0.04 (0.43)	0.38 (0.43)	-0.12 (0.45)	0.02 (0.41)	0.33 (0.28)	0.23 (0.33)	0.20 (0.42)
Gov. Owned	0.02 (0.34)	0.19 (0.37)	0.04 (0.48)	0.41 (0.45)	-0.29 (0.49)	-0.69 (0.50)	-0.45 (0.47)	0.01 (0.25)	0.00 (0.27)	0.19 (0.51)
Bus. Assoc.	-0.21 (0.16)	-0.02 (0.19)	0.16 (0.29)	-0.08 (0.29)	0.50 (0.32)	0.20 (0.27)	0.09 (0.27)	-0.00 (0.19)	0.26 (0.22)	0.58† (0.32)
Rights Violated	-0.01 (0.18)	0.39† (0.23)	0.61† (0.33)	0.08 (0.34)	0.32 (0.33)	-0.06 (0.33)	0.07 (0.31)	0.24 (0.20)	0.36 (0.26)	0.25 (0.32)
Litigated	0.15 (0.19)	-0.19 (0.24)	-0.20 (0.35)	-0.19 (0.35)	0.10 (0.35)	0.02 (0.35)	0.10 (0.31)	-0.08 (0.20)	-0.33 (0.23)	-0.30 (0.36)
Legal Ed.	0.06 (0.26)	0.38 (0.25)	0.69 (0.46)	0.10 (0.40)	0.18 (0.46)	0.71† (0.39)	0.59 (0.38)	0.53† (0.27)	0.39 (0.26)	1.02** (0.37)
Age	-0.00 (0.01)	0.01 (0.01)	-0.03* (0.01)	-0.01 (0.01)	0.01 (0.02)	-0.01 (0.01)	-0.01 (0.01)	-0.02* (0.01)	-0.01 (0.01)	-0.01 (0.01)
Male	0.04 (0.18)	0.36† (0.20)	-0.24 (0.29)	-0.20 (0.29)	0.47 (0.30)	-0.22 (0.27)	-0.08 (0.27)	-0.20 (0.18)	-0.18 (0.21)	-0.40 (0.29)
Constant	5.98*** (0.86)	4.56*** (0.95)	6.72*** (1.32)	6.38*** (1.31)	0.74 (1.38)	4.14** (1.33)	3.59** (1.28)	3.12*** (0.86)	4.52*** (1.07)	4.13*** (1.23)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
N	301	301	301	301	301	301	301	301	301	301
R-sq.	0.19	0.36	0.28	0.25	0.27	0.31	0.35	0.31	0.39	0.30
Adj. R-sq.	0.07	0.26	0.17	0.14	0.16	0.21	0.25	0.21	0.30	0.19

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

5.5 Regressions Using Listwise Deletion

The following analyses show that the regression results presented in the article are robust if listwise deletion is used instead of multiply imputing missing data. In general the magnitude of the coefficients of interest is larger but less precisely estimated with listwise deletion than with multiple imputation. In some fully saturated specifications (i.e., specifications in which the tax compliance, ownership consolidation, and expectations about other firms' strategies variables are entered into the regression simultaneously), the coefficients of interest are no longer statistically significant, due to the fact that listwise deletion removes a very large number of observations. However, even in such cases, the results remain robust when each variable of interest – tax compliance, ownership consolidation, and expectations about other firms' use of law – is entered into the regression separately along with a full set of control variables.

Table 5.5.1: Regression Results – Property Dispute Scenario (legal strategies)

OLS with listwise deletion

	Lawyers	Lawyers	Lawyers	Courts	Courts	Courts	Law Enf.	Law Enf.	Law Enf.	Gov. off.	Gov. off.	Gov. off.
	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)
Tax Violator	-0.61† (0.35)	-0.56 (0.34)	-0.46 (0.35)	-0.27 (0.36)	-0.24 (0.43)	0.25 (0.47)	-0.27 (0.41)	0.24 (0.44)				
Others Unlawful		-0.44* (0.20)		-0.52* (0.24)		-0.39 (0.28)		-0.75* (0.29)				
Privatized	-0.53 (0.49)	-0.29 (0.64)	-0.29 (0.49)	-0.29 (0.49)	0.16 (0.58)	-1.47* (0.62)		-0.21 (0.81)				
Consolidated	0.21 (0.36)	0.74 (0.49)	0.15 (0.42)	0.15 (0.42)	0.90† (0.49)	-0.71† (0.51)		0.03 (0.55)				
Privatized*Consolidated	0.11 (0.52)	-0.90 (0.60)	0.24 (0.52)	0.24 (0.52)	-0.43 (0.62)	0.57 (0.69)		0.31 (0.86)				
Firm Age	0.03 (0.15)	0.08 (0.08)	0.35* (0.16)	0.25* (0.11)	0.30† (0.17)	0.19† (0.11)		0.12 (0.18)				
Foreign Owned	-0.17 (0.38)	0.18 (0.28)	0.63 (0.59)	0.74† (0.38)	0.82 (0.61)	-1.22† (0.53)		-1.12* (0.47)				
Gov. Owned	-0.65 (0.67)	-0.19 (0.40)	-0.28 (0.75)	0.47 (0.45)	0.13 (0.75)	-0.85 (0.55)		0.24 (0.83)				
Bus. Assoc.	-0.36 (0.35)	0.01 (0.28)	-0.25 (0.34)	-0.16 (0.28)	-0.12 (0.31)	0.53 (0.40)		0.89** (0.31)				
Rights Violated	-0.76† (0.39)	-0.02 (0.24)	-0.52 (0.40)	0.20 (0.34)	-0.45 (0.49)	0.21 (0.32)		0.31 (0.34)				
Litigated	0.74 (0.46)	0.49 (0.32)	0.65 (0.46)	0.56 (0.37)	0.96* (0.47)	0.82* (0.37)		-0.41 (0.35)				
Legal Ed.	-0.27 (0.54)	-0.21 (0.26)	0.12 (0.53)	0.20 (0.34)	0.14 (0.73)	0.41 (0.45)		0.53 (0.44)				
Age	-0.02 (0.01)	-0.01 (0.01)	0.02 (0.02)	0.02 (0.01)	-0.02 (0.02)	-0.03* (0.02)		-0.04* (0.02)				
Male	-0.40 (0.31)	-0.27 (0.23)	-0.37 (0.32)	-0.20 (0.26)	-0.15 (0.33)	-0.17 (0.39)		0.07 (0.29)				
Constant	7.15*** (1.31)	7.01*** (0.82)	3.11* (1.32)	3.34** (0.98)	6.55*** (1.56)	8.53*** (1.22)		7.10*** (1.41)				
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	154	248	154	245	148	154	154	148	154	244	251	148
R-squared	0.26	0.23	0.35	0.28	0.42	0.31	0.28	0.37	0.28	0.26	0.38	0.28
Adj. R-sq.	0.04	0.09	0.14	0.14	0.10	0.15	0.13	0.16	0.13	0.16	0.16	0.15

Robust standard errors in parentheses

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 5.5.2: Regression Results – Property Dispute Scenario (corrupt strategies)

OLS with listwise deletion

	Courts (informal)	Courts (informal)	Courts (informal)	Law Enf. (informal)	Law Enf. (informal)	Law Enf. (informal)	Gov. off. (informal)	Gov. off. (informal)	Gov. off. (informal)
Tax Violator	1.26** (0.45)	1.12* (0.49)	0.81† (0.44)	1.00* (0.43)	0.89† (0.46)	0.54† (0.28)	0.94† (0.48)		
Others Unlawful		0.67* (0.31)		0.72* (0.30)					
Privatized	0.50 (0.71)	1.02 (0.87)	-0.44 (0.72)	0.26 (0.79)	0.32 (0.64)				
Consolidated	0.42 (0.50)	1.00 (0.71)	-0.80† (0.46)	-0.91† (0.53)	-0.22 (0.45)				
Privatized*Consolidated	-1.42† (0.79)	-2.57** (0.93)	-0.17 (0.78)	-0.45 (0.88)	-0.72 (0.69)				
Firm Age	-0.14 (0.20)	-0.13 (0.20)	0.09 (0.15)	0.03 (0.12)	0.00 (0.15)				
Foreign Owned	-0.87 (0.80)	-0.79 (0.86)	-0.62 (0.73)	-0.12 (0.47)	-0.58 (0.57)				
Gov. Owned	0.20 (0.63)	0.08 (0.52)	-0.77 (0.63)	-0.40 (0.48)	0.27 (0.71)				
Bus. Assoc.	0.79 (0.48)	0.70† (0.36)	0.57 (0.39)	0.28 (0.30)	0.43 (0.39)				
Rights Violated	0.21 (0.56)	0.65† (0.38)	0.19 (0.53)	0.92* (0.37)	0.45 (0.45)				
Litigated	0.36 (0.58)	0.11 (0.41)	0.24 (0.57)	-0.15 (0.40)	-0.16 (0.52)				
Legal Ed.	0.89 (0.82)	0.67 (0.53)	1.11† (0.67)	0.41 (0.42)	1.12† (0.65)				
Age	-0.01 (0.02)	0.02 (0.02)	0.01 (0.02)	-0.01 (0.02)	0.01 (0.02)				
Male	-0.66 (0.46)	-0.47 (0.35)	-0.32 (0.41)	-0.19 (0.30)	-0.33 (0.39)				
Constant	2.69 (1.79)	2.27† (1.32)	2.12 (1.93)	3.45* (1.34)	2.10 (1.70)				
City dummies	yes	yes	yes	yes	yes				
Sector dummies	yes	yes	yes	yes	yes				
Firm size dummies	yes	yes	yes	yes	yes				
Firm finances dummies	yes	yes	yes	yes	yes				
Job title dummies	yes	yes	yes	yes	yes				
Observations	150	236	153	244	147				
R-squared	0.37	0.26	0.39	0.27	0.45				
Adj. R-sq.	0.16	0.13	0.20	0.13	0.17				

Robust standard errors in parentheses

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 5.5.3: Regression Results – Property Dispute Scenario (violent strategies)

OLS with listwise deletion

	Criminal racket	Criminal racket	Criminal racket	Private Sec. Agency	Private Sec. Agency	Private Sec. Agency	Internal Security	Internal Security	Internal Security
Tax Violator	1.22*** (0.33)		1.25*** (0.37)	0.41 (0.39)		0.21 (0.41)	0.21 (0.39)		0.09 (0.44)
Others Unlawful		0.63** (0.23)	0.30 (0.30)		0.44† (0.23)	0.03 (0.27)		0.33 (0.29)	0.40 (0.48)
Privatized	-0.22 (0.44)	-0.90† (0.50)	-0.90† (0.50)		-1.01* (0.44)	-0.70 (0.45)	0.66 (0.70)		0.45 (0.91)
Consolidated	0.37 (0.30)	-0.35 (0.43)	-0.35 (0.43)		-0.21 (0.35)	0.23 (0.43)	0.01 (0.40)		0.09 (0.57)
Privatized*Consolidated	-0.27 (0.41)	0.71 (0.51)	0.71 (0.51)		0.32 (0.45)	-0.21 (0.49)	-1.07 (0.79)		-0.78 (1.03)
Firm Age	-0.07 (0.12)	-0.03 (0.09)	-0.17 (0.12)	0.07 (0.12)	0.06 (0.09)	0.12 (0.12)	0.00 (0.14)	-0.06 (0.13)	-0.09 (0.20)
Foreign Owned	0.30 (0.43)	0.99* (0.41)	0.75† (0.45)	-0.66† (0.37)	0.92* (0.45)	-0.37 (0.36)	0.56 (0.46)	-0.22 (0.45)	-0.44 (0.71)
Gov. Owned	0.41 (0.50)	0.46 (0.37)	0.41 (0.59)	-0.16 (0.44)	0.23 (0.44)	0.14 (0.51)	-0.37 (0.64)	-0.13 (0.62)	-0.78 (1.07)
Bus. Assoc.	-0.07 (0.27)	0.08 (0.25)	-0.06 (0.25)	0.17 (0.31)	0.14 (0.25)	0.34 (0.34)	0.59 (0.35)	0.58† (0.35)	0.62 (0.49)
Rights Violated	-0.13 (0.33)	0.22 (0.25)	0.18 (0.24)	-0.27 (0.43)	0.25 (0.30)	-0.04 (0.42)	0.57 (0.53)	0.30 (0.35)	0.68 (0.58)
Litigated	-0.23 (0.34)	-0.45 (0.28)	-0.46† (0.36)	-0.54† (0.33)	-0.78** (0.28)	-0.47 (0.32)	0.15 (0.65)	-0.08 (0.45)	0.20 (0.72)
Legal Ed.	0.87† (0.47)	0.60† (0.36)	0.71† (0.49)	0.55 (0.36)	-0.05 (0.31)	0.20 (0.35)	0.76 (0.59)	0.30 (0.40)	0.39 (0.59)
Age	-0.04** (0.01)	-0.03** (0.01)	-0.04*** (0.01)	-0.03† (0.01)	-0.02 (0.01)	-0.01 (0.02)	-0.03 (0.02)	0.00 (0.02)	-0.03 (0.02)
Male	0.18 (0.28)	0.22 (0.22)	0.17 (0.29)	-0.87** (0.30)	-0.45† (0.25)	-0.92** (0.30)	0.17 (0.43)	0.01 (0.29)	-0.38 (0.49)
Constant	3.46** (1.03)	3.28** (0.94)	3.45*** (1.08)	3.93** (1.28)	4.19*** (1.14)	2.96* (1.29)	4.00** (1.31)	3.80** (1.16)	4.54* (1.85)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	150	232	241	144	237	145	232	239	143
R-squared	0.50	0.33	0.33	0.46	0.33	0.50	0.34	0.31	0.37
Adj. R-sq.	0.33	0.20	0.21	0.29	0.20	0.31	0.13	0.18	0.12

Robust standard errors in parentheses

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 5.5.4: Regression Results – Debt Dispute Scenario (legal strategies)

OLS with listwise deletion

	Lawyers	Lawyers	Lawyers	Courts	Courts	Courts	Law Enf.	Law Enf.	Law Enf.	Gov. off.	Gov. off.	Gov. off.
	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)	(formal)
Tax Violator	0.13 (0.30)		0.26 (0.31)	-0.26 (0.32)		-0.14 (0.40)	0.78 (0.55)	0.04 (0.50)				0.49 (0.57)
Others Unlawful		-0.13 (0.18)	0.05 (0.26)		-0.36 [†] (0.21)			0.20 (0.30)			-0.48 (0.30)	-0.59 (0.51)
Privatized	-0.23 (0.36)		-0.29 (0.44)		-0.22 (0.39)		-0.10 (0.67)			-0.05 (0.66)		-0.32 (0.86)
Consolidated	-0.15 (0.21)		-0.11 (0.35)		-0.34 (0.30)		-0.39 (0.34)			-0.18 (0.46)		-1.14 [†] (0.58)
Privatized*Consolidated	0.24 (0.42)		0.23 (0.55)		0.18 (0.43)		0.09 (0.78)			-0.15 (0.72)		0.97 (0.87)
Firm Age	0.13 (0.11)	0.10 (0.08)	0.13 (0.12)	0.13 (0.13)	0.10 (0.10)	0.11 (0.14)	0.25 (0.16)	0.06 (0.12)	0.12 (0.17)	0.07 (0.12)	0.11 (0.11)	0.13 (0.17)
Foreign Owned	-0.51 (0.42)	-0.19 (0.33)	-0.54 (0.46)	0.29 (0.42)	0.30 (0.36)	0.41 (0.31)	-1.54* (0.60)	-0.44 (0.52)	-1.32 [†] (0.76)	-0.32 (0.54)	-0.35 (0.48)	-1.13 (0.81)
Gov. Owned	0.03 (0.49)	0.12 (0.39)	0.04 (0.33)	-0.02 (0.57)	0.38 (0.36)	0.58 (0.36)	-0.68 (0.79)	-0.07 (0.59)	-0.53 (0.87)	0.64 (0.57)	0.69 (0.49)	-1.09 (1.01)
Bus. Assoc.	-0.24 (0.22)	-0.23 (0.17)	-0.18 (0.22)	-0.11 (0.28)	0.04 (0.22)	-0.03 (0.26)	0.49 (0.43)	0.42 (0.35)	-0.08 (0.50)	0.21 (0.34)	0.14 (0.32)	-0.35 (0.51)
Rights Violated	0.07 (0.33)	-0.12 (0.18)	0.05 (0.35)	-0.02 (0.33)	0.19 (0.26)	0.02 (0.24)	0.63 [†] (0.48)	0.54 (0.36)	0.06 (0.49)	-0.07 (0.37)	0.01 (0.35)	-0.16 (0.54)
Litigated	0.20 (0.29)	0.25 (0.20)	0.16 (0.19)	0.07 (0.35)	0.05 (0.28)	0.17 (0.40)	-0.10 (0.54)	-0.19 (0.41)	-0.05 (0.60)	0.09 (0.39)	-0.08 (0.36)	-0.26 (0.58)
Legal Ed.	0.03 (0.50)	-0.03 (0.28)	-0.09 (0.27)	0.67 [†] (0.37)	0.19 (0.26)	0.74 [†] (0.41)	1.27 (0.80)	0.84 (0.51)	0.81 (0.92)	-0.08 (0.45)	0.04 (0.44)	1.00 (0.97)
Age	-0.02 (0.01)	-0.01 (0.01)	-0.01 (0.01)	0.00 (0.01)	0.01 (0.01)	0.01 (0.01)	-0.03 (0.02)	-0.04* (0.02)	0.02 (0.02)	-0.01 (0.02)	-0.01 (0.02)	0.01 (0.03)
Male	-0.29 (0.26)	-0.00 (0.19)	-0.03 (0.27)	-0.42 [†] (0.24)	-0.35 (0.21)	-0.37 (0.27)	0.15 (0.42)	0.15 (0.32)	-0.08 (0.46)	0.18 (0.33)	0.27 (0.32)	0.30 (0.50)
Constant	6.73*** (0.95)	6.81*** (0.78)	6.90*** (0.71)	5.03*** (1.03)	5.00*** (0.97)	4.98*** (1.15)	6.62*** (1.63)	6.62*** (1.37)	4.80* (1.13)	6.65*** (1.88)	6.66*** (1.20)	6.05*** (2.01)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	156	252	262	155	243	149	156	249	150	153	246	255
R-squared	0.25	0.21	0.19	0.41	0.32	0.45	0.34	0.28	0.27	0.29	0.25	0.34
Adj. R-sq.	0.03	0.07	0.06	0.23	0.20	0.24	0.14	0.15	0.12	0.07	0.11	0.10

Robust standard errors in parentheses

[†] significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 5.5.5: Regression Results – Debt Dispute Scenario (corrupt strategies)

OLS with listwise deletion

	Courts (informal)	Courts (informal)	Courts (informal)	Law Enf. (informal)	Law Enf. (informal)	Law Enf. (informal)	Gov. off. (informal)	Gov. off. (informal)	Gov. off. (informal)
Tax Violator	1.33** (0.48)		1.08* (0.51)	1.08* (0.50)	1.14* (0.48)	1.18** (0.43)		1.31** (0.44)	
Others Unlawful		0.69* (0.32)	0.60 (0.52)		0.77** (0.29)		0.45 (0.28)		
Privatized		0.30 (0.73)	0.51 (0.94)	-0.07 (0.68)		0.38 (0.79)	0.42 (0.68)	0.68 (0.80)	
Consolidated		-0.32 (0.78)	-0.12 (0.86)	-0.99* (0.46)		-1.13† (0.59)	-0.33 (0.42)	-0.99† (0.51)	
Privatized*Consolidated		-0.73 (0.80)	-1.27 (1.01)	0.10 (0.73)		-0.12 (0.82)	-0.75 (0.68)	-0.51 (0.77)	
Firm Age	-0.15 (0.18)	-0.12 (0.15)	-0.07 (0.20)	-0.01 (0.13)	-0.06 (0.13)	0.09 (0.17)	-0.11 (0.12)	-0.03 (0.14)	
Foreign Owned	-0.57 (0.78)	0.45 (0.55)	-0.80 (0.86)	-0.27 (0.46)	-0.36 (0.41)	-1.03 (0.77)	-0.07 (0.45)	-0.41 (0.64)	
Gov. Owned	-0.73 (0.97)	-0.07 (0.67)	-0.10 (1.15)	-0.52 (0.53)	-0.32 (0.39)	-0.41 (0.59)	0.04 (0.46)	-0.42 (0.59)	
Bus. Assoc.	0.72 (0.49)	0.54 (0.38)	0.53 (0.37)	0.85* (0.39)	0.17 (0.29)	0.61 (0.38)	-0.00 (0.32)	0.32 (0.37)	
Rights Violated	0.35 (0.54)	0.58 (0.38)	0.44 (0.38)	0.20 (0.53)	0.07 (0.37)	0.35 (0.50)	0.21 (0.35)	0.59 (0.43)	
Litigated	0.47 (0.58)	0.11 (0.42)	0.19 (0.39)	0.24 (0.54)	0.05 (0.40)	0.02 (0.54)	0.12 (0.40)	-0.29 (0.49)	
Legal Ed.	1.22 (0.82)	0.22 (0.55)	0.75 (0.52)	0.91 (0.65)	0.82* (0.40)	0.83 (0.63)	0.73† (0.44)	0.74 (0.67)	
Age	0.00 (0.02)	0.01 (0.02)	0.02 (0.03)	0.00 (0.02)	-0.03† (0.02)	-0.01 (0.02)	-0.02 (0.02)	-0.01 (0.02)	
Male	-0.89* (0.44)	-0.67† (0.36)	-0.84* (0.33)	-0.27 (0.40)	0.17 (0.29)	-0.11 (0.42)	0.07 (0.31)	0.38 (0.48)	
Constant	1.84 (2.02)	2.75† (1.54)	1.84 (1.41)	1.79 (1.71)	3.52** (1.28)	2.81 (1.91)	4.04** (1.48)	2.39 (1.77)	
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	
Observations	147	230	141	155	251	149	244	149	
R-squared	0.39	0.25	0.27	0.41	0.31	0.46	0.32	0.43	
Adj. R-sq.	0.19	0.10	0.14	0.22	0.19	0.26	0.19	0.22	

Robust standard errors in parentheses

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 5.5.6: Regression Results – Debt Dispute Scenario (violent strategies)

OLS with listwise deletion

	Crimal racket	Crimal racket	Crimal racket	Private Sec. Agency	Private Sec. Agency	Private Sec. Agency	Internal Security	Internal Security	Internal Security	Internal Security
Tax Violator	0.47† (0.25)		0.49† (0.25)	0.22 (0.37)		0.49 (0.45)		0.44 (0.52)		0.44 (0.52)
Others Unlawful		0.50* (0.20)	0.36† (0.19)		0.66** (0.22)	0.44 (0.31)		0.39 (0.31)		0.41 (0.53)
Privatized	-0.33 (0.35)		-0.70* (0.31)	-0.99* (0.43)		-0.59 (0.44)	0.37 (0.70)			-0.05 (0.96)
Consolidated	0.21 (0.26)		-0.52† (0.31)	-0.58 (0.36)		-0.50 (0.45)	-0.28 (0.40)			-0.32 (0.60)
Privatized*Consolidated	-0.15 (0.33)		0.48 (0.36)	0.58 (0.45)		0.19 (0.48)	-0.46 (0.82)			0.05 (1.10)
Firm Age	0.00 (0.10)	0.05 (0.08)	0.03 (0.11)	-0.09 (0.09)	-0.02 (0.08)	-0.07 (0.11)	0.16 (0.14)	0.14 (0.20)		-0.01 (0.20)
Foreign Owned	0.03 (0.27)	0.67* (0.32)	0.54† (0.28)	0.73† (0.39)	0.53 (0.38)	-0.26 (0.42)	0.63 (0.51)	0.62 (0.48)		-0.46 (0.79)
Gov. Owned	0.42 (0.32)	0.19 (0.32)	0.16 (0.36)	0.23 (0.32)	0.18 (0.30)	0.44 (0.40)	0.06 (0.65)	0.29 (0.63)		-0.14 (1.07)
Bus. Assoc.	-0.32 (0.22)	-0.05 (0.19)	-0.16 (0.24)	0.13 (0.28)	0.05 (0.23)	0.12 (0.30)	0.64 (0.48)	0.33 (0.38)		0.66 (0.52)
Rights Violated	-0.15 (0.27)	0.28 (0.25)	0.21 (0.24)	-0.18 (0.35)	0.43 (0.29)	-0.10 (0.35)	0.58 (0.50)	0.24 (0.34)		0.44 (0.54)
Litigated	-0.04 (0.25)	-0.17 (0.22)	-0.21 (0.25)	-0.17 (0.32)	-0.54* (0.26)	-0.11 (0.35)	0.01 (0.63)	-0.51 (0.45)		0.15 (0.69)
Legal Ed.	0.71* (0.31)	0.54† (0.31)	0.60† (0.32)	0.64† (0.36)	0.28 (0.29)	0.49 (0.40)	1.44* (0.61)	0.89* (0.41)		1.38* (0.65)
Age	-0.02 (0.01)	-0.02† (0.01)	-0.02 (0.01)	-0.02 (0.01)	-0.02* (0.01)	-0.01 (0.01)	-0.01 (0.02)	-0.01 (0.02)		-0.02 (0.02)
Male	0.05 (0.23)	0.28 (0.21)	0.18 (0.24)	0.05 (0.25)	0.23 (0.23)	-0.01 (0.27)	-0.02 (0.42)	0.52 (0.35)		-0.20 (0.51)
Constant	2.76* (1.07)	3.29** (1.06)	3.50*** (1.11)	3.90*** (1.01)	4.02*** (1.07)	3.72** (1.17)	2.33 (1.73)	3.69** (1.41)		3.00† (1.78)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes		yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes		yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes		yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes		yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes		yes
Observations	153	237	245	147	152	146	149	233		144
R-squared	0.45	0.28	0.29	0.42	0.38	0.44	0.35	0.29		0.37
Adj. R-sq.	0.28	0.14	0.17	0.30	0.27	0.23	0.14	0.15		0.12

Robust standard errors in parentheses

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

5.6 Alternative Econometric Approach

The quantitative analyses in the main article text (see Figures 2, 3, and 4 and Tables A1 and A2) treat each property security strategy as a distinct dependent variable, regressing each of the 10 strategies listed in Table 1 of the article on the explanatory variables of interest. A potential concern is that this empirical strategy implicitly assumes a firm’s response about its likeliness of using a given strategy to be independent from its responses regarding likeliness of using other strategies. This section shows that an alternative approach that simultaneously accounts for firms’ propensity to use multiple strategies produces similar results. The approach developed here first employs k-means clustering to group firms according to their reported likeliness of using each of the 10 strategies listed in Table 1. These groups then are used as categorical dependent variables in a set of logit and multinomial logit regressions.

K-means clustering is a partitioning method that divides observations in a dataset into k clusters. The algorithm assigns each observation to the cluster with the nearest mean, recalculates the cluster means, reassigns each observation to the cluster with the nearest mean, and repeats this process until the distance of data points to the nearest cluster mean can no longer be reduced by continuing to reassign observations. The number of clusters k must be specified by the analyst based on diagnostic tests and substantive considerations.

As shown in Table 5.6.1a, when firms are grouped into two clusters, one cluster reports a higher propensity to use courts, while the second cluster reports a higher propensity to use all other strategies. Meanwhile, Table 5.6.1b shows that when firms are grouped into three clusters, one group of firms proves relatively more reliant on legal strategies, a second group proves relatively more reliant on illegal strategies, and a third group expresses a greater propensity to use all strategies.¹ The one exception concerns internal security services, which receive higher rankings from the group of “lawful” firms than from the group of “unlawful” firms. This most likely reflects the fact that while such services engaged in dubious protection operations in the 1990s, by 2009 (the year of the survey) their primary focus had become employee background checks, IT security, and other routine operations. Additionally, for the debt dispute scenario, “lawful” firms report a lower propensity to turn to law enforcement or bureaucrats in an official capacity than reported by “unlawful” firms. Arguably, this reflects the fact that there may be limited grounds for legitimate official intervention of such actors in debt disputes among private parties, in contrast to property disputes which may rise to the level of a criminal incident.

Firms’ assignments to clusters serve as the dependent variables in the analyses that follow. I first consider the two-cluster approach, using the dichotomous variable of whether a firm belongs to the “courts” group or the “other” group as the dependent variable in a logit regression. As seen in the average marginal effects presented in Table 5.6.2, the results are robust and highly consistent with the main results presented in the article text. (The results of full regression models, on which these average marginal effects are based, are shown in

¹Diagnostics using the NbClust package in R, a tool that simultaneously employs 24 indices to determine the optimal number of clusters, point to either two or three clusters for the property dispute scenario, and two or four clusters for the debt dispute scenario. For the sake of consistency, the analyses below use two and three clusters for both scenarios.

Table 5.6.3.)² With respect to the debt dispute scenario, a firm that reports less than 90 percent of its revenue for tax purposes is 28 percentage points less likely to be assigned to the “courts” group than a firm that reports more than 90 percent of revenue. Meanwhile, a privatized firm with consolidated ownership is 22 percentage points more likely to be assigned to the “courts” group than a privatized firm without consolidated ownership, and a respondent who disagrees that other firms “do their best to follow the law” is 16 percentage points less likely to be assigned to the “courts” group than a respondent who agrees with the statement. All of these results are statistically significant at the 5 percent level or lower, and the results concerning the property dispute are nearly identical.

The three-cluster approach, which uses the trichotomous categorical variable of whether a firm belongs to the “legal” group, “illegal” group, or “use all” strategies group as the dependent variable in a multinomial logit regression, produces similar results. As can again be seen in the results concerning the debt dispute scenario in Table 5.6.2, a tax violating firm is 26 percentage points less likely than a tax paying firm to be assigned to the “legal” group and 20 percentage points more likely to be assigned to the “illegal” group. Privatized firms with consolidated ownership are 22 percentage points more likely to be assigned to the “legal” group and 11 percentage points less likely to be assigned to the “illegal” group, although only the former is statistically significant at conventional levels. Similarly, firms that perceive others to be lawbreakers are 14 percentage points less likely to be assigned to the “legal” group. Although there is no robust relationship between expectations of others’ strategies and assignment to the “illegal” group, firms that believe others are lawbreakers are 10 percentage points more likely to be assigned to the “use all” strategies group. Once more, results for the property dispute scenario are similar.

In summary, the alternative approach suggests that the correlations identified in the article between firms’ property security strategies and tax compliance, ownership consolidation, or expectations of other firms’ strategies are robust, even accounting for the fact that firms’ willingness to use a given strategy is likely to be associated with their likeliness of using other strategies.

²Average marginal effects are calculated using the *margins* command in Stata.

Table 5.6.1: Preferred Strategies by Group

Average responses on a scale of 1 to 7, where 1 is “very unlikely” to use and 7 is “very likely”

(A) 2 Clusters

	<i>Debt Disputes</i>		<i>Property Disputes</i>	
	Courts	Other	Courts	Other
	(n=162)	(n=139)	(n=146)	(n=155)
Lawyers	6.19	6.44	5.94	6.09
Courts	5.99	5.60	5.73	5.62
Law Enforcement	4.19	5.57	4.76	5.54
Bureaucrats	3.41	4.71	3.89	5.13
Courts (with connections)	3.11	5.46	3.10	5.50
Law Enforcement (informal)	2.01	5.50	2.00	5.42
Bureaucrats (informal)	1.84	5.11	1.79	5.34
Internal Security	2.69	3.79	3.00	3.56
Private Security Agency	1.44	2.91	1.61	2.81
Criminal Rackets	1.24	2.44	1.30	2.53

Note: Cluster with highest average ranking per strategy is bolded.

(B) 3 Clusters

	<i>Debt Disputes</i>			<i>Property Disputes</i>		
	Legal	Illegal	All	Legal	Illegal	All
	(n=142)	(n=87)	(n=72)	(n=111)	(n=73)	(n=117)
Lawyers	6.25	6.12	6.66	6.52	4.56	6.45
Courts	6.14	4.90	6.27	6.61	3.49	6.16
Law Enforcement	4.15	4.87	6.11	5.48	3.28	6.04
Bureaucrats	3.40	3.61	5.71	4.70	2.64	5.56
Courts (with connections)	2.95	5.01	5.66	3.25	3.57	5.85
Law Enforcement (informal)	1.75	5.44	5.11	1.85	3.60	5.67
Bureaucrats (informal)	1.60	4.83	5.01	1.85	3.17	5.58
Internal Security	2.84	2.03	5.33	3.10	2.82	3.76
Private Security Agency	1.39	2.23	3.41	1.50	2.25	2.91
Criminal Racket	1.24	1.78	2.91	1.29	1.91	2.56

Note: Clusters with top two highest average rankings per strategy are bolded.

Note: K-means cluster analysis was conducted on each of 10 multiply imputed data sets. The average rankings and number of respondents per cluster in the tables above represent the means across these 10 data sets.

Table 5.6.2: Average Marginal Effects

(A) Debt Dispute Scenario

	<i>Two Cluster Model (logit)</i>	<i>Three Cluster Model (multinomial logit)</i>		
	Change in probability of being in “courts” group	Change in probability of being in:		
		“legal” group	“illegal” group	“use all” group
Tax Violator vs. Tax Payer	-0.28*** (0.08)	-0.26*** (0.07)	0.20** (0.08)	0.06 (0.07)
Consolidated Owner vs. Unconsolidated	0.22* (0.11)	0.22* (0.10)	-0.11 (0.10)	-0.11 (0.08)
Other Firms Unlawful vs. Others Lawful	-0.16** (0.06)	-0.14* (0.05)	0.03 (0.05)	0.10* (0.05)

(B) Property Dispute Scenario

	<i>Two Cluster Model (logit)</i>	<i>Three Cluster Model (multinomial logit)</i>		
	Change in probability of being in “courts” group	Change in probability of being in:		
		“legal” group	“illegal” group	“use all” group
Tax Violator vs. Tax Payer	-0.26*** (0.07)	-0.15* (0.06)	0.09† (0.06)	0.06 (0.06)
Consolidated Owner vs. Unconsolidated	0.25* (0.11)	0.19† (0.11)	0.01 (0.10)	-0.20† (0.11)
Other Firms Unlawful vs. Others Lawful	-0.18** (0.06)	-0.15* (0.06)	0.09† (0.06)	0.06 (0.06)

Note: *** p<0.001; ** p<0.01; * p<0.05; † p<0.10. Standard errors in parentheses. The consolidated ownership row compares privatized firms with consolidated owners to privatized firms without consolidated owners.

Table 5.6.3: Regression Results

	<i>Two Cluster Model (logit)</i>		<i>Three Cluster Model (MNL)</i>			
	Debt	Property	Debt		Property	
			“use all”	“illegal”	“use all”	“illegal”
Tax Violator	-1.64** (0.51)	-1.49** (0.44)	1.39* (0.65)	1.86** (0.59)	1.82** (0.61)	1.33* (0.61)
Others Unlawful	-1.04** (0.38)	-1.08** (0.39)	1.28** (0.48)	0.73 (0.46)	0.87† (0.46)	1.13* (0.48)
Privatized	0.32 (0.76)	0.29 (0.75)	-1.47 (0.99)	-0.08 (0.89)	-0.96 (0.90)	-0.36 (1.12)
Consolidated	0.88† (0.53)	0.70 (0.51)	-1.55* (0.72)	-1.30* (0.61)	-1.59* (0.64)	-1.22† (0.70)
Privatized*Consolidated	0.57 (0.88)	0.84 (0.87)	-0.14 (1.19)	-0.02 (1.02)	0.05 (1.02)	0.65 (1.13)
Firm Age	0.02 (0.17)	-0.05 (0.17)	0.14 (0.21)	-0.06 (0.19)	-0.10 (0.21)	-0.52** (0.20)
Foreign Owned	-0.01 (0.67)	-0.13 (0.65)	-0.10 (0.82)	-0.65 (0.87)	-0.45 (0.70)	-0.46 (0.79)
Gov. Owned	0.28 (0.73)	0.86 (0.78)	-0.13 (0.85)	-1.29 (0.93)	-0.60 (0.90)	-1.09 (0.97)
Bus. Assoc.	0.57 (0.40)	0.07 (0.39)	-0.22 (0.52)	-0.54 (0.49)	0.38 (0.45)	0.00 (0.51)
Age	0.03 (0.02)	0.03 (0.02)	-0.04† (0.02)	-0.01 (0.02)	-0.01 (0.02)	0.00 (0.02)
Gender	0.58 (0.38)	-0.04 (0.39)	-0.97† (0.53)	-0.26 (0.46)	0.29 (0.44)	0.46 (0.49)
Legal Ed.	-1.42* (0.62)	-0.50 (0.62)	2.98** (0.86)	1.40† (0.78)	1.67* (0.71)	0.34 (0.87)
Rights Violated	-0.04 (0.45)	-0.59 (0.45)	0.55 (0.60)	-0.61 (0.51)	-0.11 (0.50)	-0.68 (0.50)
Litigated	0.20 (0.43)	0.39 (0.46)	-0.51 (0.57)	-0.16 (0.54)	-0.01 (0.51)	-1.00† (0.54)
Constant	-1.79 (1.73)	-0.26 (1.65)	3.41 (2.43)	-0.24 (2.14)	0.74 (1.82)	-0.22 (2.15)
City Dummies	yes	yes	yes	yes	yes	yes
Sector Dummies	yes	yes	yes	yes	yes	yes
Firm Size Dummies	yes	yes	yes	yes	yes	yes
Firm Finances Dummies	yes	yes	yes	yes	yes	yes
Job Title Dummies	yes	yes	yes	yes	yes	yes

Note: N = 301. Excluded category for multinomial logit regressions is the “legal” group. Standard errors in parentheses.
 *** p<0.001; ** p<0.01; * p<0.05; † p<0.10.

5.7 Regressions by Firm Size

The following analyses show that the regression results presented in the article are robust across firms of different sizes. Tables 5.7.1 and 5.7.2 analyze the subsample of firms with over 250 employees (the typical cutoff for small and medium sized firms), using the same regression specifications shown in Tables A1 and A2 of the article appendix. Tables 5.7.3 and 5.7.4 repeat this exercise for the subsample of firms with 250 or fewer employees. Although the estimates are less precise due to the smaller number of observations, in nearly all specifications regression coefficients are of the same sign and of a similar magnitude across the subsample and full sample analyses.

Table 5.7.1: Regression Results (Larger Firms Only)

Property Dispute Scenario – Firms with 250 or more employees

	Lawyers	Courts	Law Enf.	Gov. Officials	Courts	Law Enf.	Gov. Officials	Criminal	Private Sec.	Internal
	(formal)	(formal)	(formal)	(formal)	(informal)	(informal)	(informal)	Rackets	Agency	Security
Tax Violator	-0.18 (0.32)	-0.58 (0.40)	-0.45 (0.48)	-0.33 (0.54)	0.72 (0.53)	1.32* (0.53)	1.70** (0.53)	0.75 (0.46)	0.42 (0.46)	0.10 (0.56)
Privatized*Consolidated (marginal effects)	0.44 (0.52)	0.43 (0.54)	-1.14† (0.66)	-0.08 (0.73)	-1.17 (0.71)	-1.33* (0.65)	-0.91 (0.60)	0.15 (0.39)	0.07 (0.34)	-0.94 (0.88)
Others Unlawful	-0.80* (0.33)	-0.92* (0.35)	-0.08 (0.42)	-1.27* (0.50)	0.61 (0.52)	0.52 (0.49)	-0.10 (0.49)	0.38 (0.37)	0.15 (0.31)	0.45 (0.48)
Privatized	-0.54 (0.53)	0.21 (0.59)	-0.69 (0.74)	-0.53 (0.81)	-1.30 (1.03)	-1.40 (1.32)	-0.92 (0.99)	0.43 (0.75)	-0.67 (0.82)	1.22 (1.13)
Consolidated	0.26 (0.52)	0.93† (0.55)	0.05 (0.68)	-0.16 (0.74)	-1.21 (0.97)	-1.70 (1.16)	-1.22 (0.99)	0.69 (0.78)	-0.16 (0.81)	0.09 (1.10)
Privatized*Consolidated	0.17 (0.63)	-0.51 (0.74)	-1.20 (0.85)	0.08 (0.93)	0.04 (1.20)	0.38 (1.40)	0.31 (1.12)	-0.54 (0.80)	0.23 (0.85)	-1.03 (1.23)
Firm Age	-0.01 (0.14)	0.24† (0.13)	-0.03 (0.18)	0.11 (0.21)	-0.11 (0.27)	0.01 (0.24)	-0.06 (0.27)	-0.09 (0.17)	-0.12 (0.16)	0.21 (0.21)
Foreign Owned	-0.14 (0.40)	0.59 (0.45)	-0.74 (0.59)	-0.70 (0.68)	-0.21 (0.61)	-0.25 (0.72)	-0.22 (0.67)	0.39 (0.46)	0.03 (0.46)	-0.04 (0.63)
Gov. Owned	-0.01 (0.39)	0.27 (0.44)	-0.52 (0.49)	-0.09 (0.58)	-0.05 (0.60)	-0.93 (0.68)	-0.67 (0.62)	-0.02 (0.39)	-0.12 (0.40)	0.04 (0.69)
Bus. Assoc.	0.95** (0.33)	0.46 (0.33)	0.92* (0.43)	1.17* (0.46)	0.21 (0.52)	0.12 (0.46)	0.36 (0.46)	0.10 (0.35)	-0.01 (0.30)	0.59 (0.55)
Rights Violated	0.18 (0.27)	-0.42 (0.41)	0.04 (0.48)	-0.09 (0.50)	0.00 (0.52)	0.11 (0.55)	-0.70 (0.50)	0.33 (0.40)	0.01 (0.35)	0.90 (0.61)
Litigated	0.71† (0.40)	0.93* (0.42)	0.94† (0.48)	0.05 (0.50)	0.50 (0.58)	0.29 (0.55)	0.22 (0.54)	-1.09** (0.34)	-0.00 (0.34)	-0.91 (0.59)
Legal Ed.	-0.04 (0.46)	0.70 (0.50)	0.91 (0.66)	0.79 (0.76)	0.22 (0.73)	-0.08 (0.72)	0.33 (0.75)	0.78 (0.57)	0.32 (0.46)	0.85 (0.67)
Age	-0.01 (0.01)	0.04* (0.02)	-0.02 (0.02)	-0.04* (0.02)	0.00 (0.02)	-0.01 (0.02)	0.00 (0.02)	-0.04* (0.01)	-0.02 (0.01)	-0.02 (0.02)
Male	0.36 (0.27)	0.41 (0.32)	0.27 (0.38)	0.07 (0.37)	0.33 (0.47)	0.06 (0.46)	0.15 (0.43)	-0.61† (0.32)	-0.19 (0.30)	0.08 (0.49)
Constant	4.99** (1.59)	1.07 (1.62)	6.80** (2.21)	7.21*** (2.06)	4.20† (2.31)	5.53* (2.34)	5.28* (2.19)	3.06† (1.66)	5.45** (1.83)	4.63† (2.69)
City Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm Size Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm Finances Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job Title Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	131	131	131	131	131	131	131	131	131	131
R-sq.	0.43	0.48	0.42	0.47	0.41	0.45	0.48	0.55	0.44	0.36
Adj. R-sq.	0.19	0.27	0.18	0.25	0.17	0.22	0.27	0.36	0.21	0.10

Note: † significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 5.7.2: Regression Results (Larger Firms Only)

Debt Dispute Scenario – Firms with 250 or more employees

	Lawyers	Courts	Law Enf.	Gov. Officials	Courts	Law Enf.	Gov. Officials	Criminal	Private Sec.	Internal
	(formal)	(formal)	(formal)	(formal)	(informal)	(informal)	(informal)	Rackets	Agency	Security
Tax Violator	0.06 (0.37)	-0.65 [†] (0.36)	-0.35 (0.58)	-0.08 (0.54)	0.95 [†] (0.57)	1.56** (0.48)	1.56** (0.55)	0.59 (0.36)	0.62 (0.48)	0.07 (0.63)
Privatized*Consolidated (marginal effects)	0.50 (0.48)	-0.12 (0.40)	-0.98 (0.76)	-0.70 (0.67)	-1.04 (0.67)	-1.10 [†] (0.48)	-0.96 (0.63)	0.02 (0.26)	0.26 (0.35)	-0.13 (0.87)
Others Unlawful	-0.63* (0.29)	-0.30 (0.27)	-0.14 (0.50)	-0.97 [†] (0.51)	0.39 (0.52)	0.26 (0.39)	-0.16 (0.41)	0.01 (0.25)	-0.03 (0.31)	0.11 (0.47)
Privatized	0.50 (0.69)	0.39 (0.54)	0.06 (1.03)	-0.27 (0.88)	-1.25 (0.88)	0.06 (1.08)	-0.65 (1.05)	-0.56 (0.60)	-0.67 (0.67)	1.21 (1.06)
Consolidated	0.76 (0.69)	0.23 (0.50)	0.39 (0.96)	-0.25 (0.84)	-1.26 (0.83)	-0.71 (0.97)	-0.69 (1.00)	-0.14 (0.59)	-0.07 (0.59)	0.84 (0.98)
Privatized*Consolidated	-0.26 (0.78)	-0.35 (0.63)	-1.37 (1.16)	-0.45 (0.98)	0.22 (1.04)	-0.39 (1.18)	-0.28 (1.23)	0.16 (0.57)	0.32 (0.66)	-0.96 (1.25)
Firm Age	0.14 (0.13)	0.13 (0.16)	0.08 (0.23)	0.31 (0.21)	-0.17 (0.24)	0.07 (0.21)	-0.02 (0.24)	0.01 (0.13)	-0.02 (0.14)	0.30 (0.21)
Foreign Owned	-0.52 (0.38)	-0.33 (0.36)	-0.96 (0.66)	-0.50 (0.63)	-0.19 (0.54)	-0.44 (0.62)	0.07 (0.60)	0.16 (0.37)	0.24 (0.48)	0.09 (0.57)
Gov. Owned	-0.10 (0.43)	-0.00 (0.44)	-0.52 (0.66)	-0.10 (0.61)	-0.31 (0.59)	-0.75 (0.64)	-0.35 (0.60)	0.03 (0.29)	0.03 (0.32)	0.69 (0.68)
Bus. Assoc.	0.19 (0.28)	0.28 (0.30)	0.30 (0.49)	0.31 (0.48)	0.20 (0.51)	0.08 (0.41)	-0.03 (0.43)	-0.01 (0.27)	-0.18 (0.28)	0.42 (0.55)
Rights Violated	0.18 (0.29)	-0.15 (0.33)	0.13 (0.51)	-0.26 (0.46)	-0.27 (0.51)	-0.24 (0.54)	0.29 (0.51)	0.23 (0.29)	0.15 (0.35)	0.37 (0.56)
Litigated	-0.08 (0.37)	0.22 (0.35)	0.46 (0.62)	-0.06 (0.54)	0.31 (0.54)	-0.05 (0.61)	-0.10 (0.52)	-0.49 (0.30)	-0.09 (0.37)	-0.98 [†] (0.54)
Legal Ed.	-0.09 (0.46)	0.50 (0.38)	1.31 (0.81)	0.73 (0.68)	-0.29 (0.75)	-0.23 (0.61)	-0.05 (0.65)	0.34 (0.35)	0.14 (0.37)	1.66** (0.63)
Age	-0.00 (0.01)	0.00 (0.01)	-0.02 (0.02)	-0.02 (0.02)	0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.03* (0.01)	-0.02 (0.01)	-0.01 (0.02)
Male	0.03 (0.29)	0.49 (0.31)	0.40 (0.47)	-0.05 (0.39)	0.62 (0.45)	-0.02 (0.40)	0.25 (0.42)	-0.31 (0.24)	-0.23 (0.28)	-0.19 (0.48)
Constant	2.89 [†] (1.64)	1.27 (1.76)	6.39** (2.32)	4.44* (2.12)	2.68 (2.25)	6.08** (2.12)	4.30 [†] (2.36)	4.38* (1.84)	5.43*** (1.57)	2.87 (2.53)
City Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm Size Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm Finances Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job Title Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	131	131	131	131	131	131	131	131	131	131
R-sq.	0.39	0.42	0.36	0.44	0.46	0.51	0.52	0.47	0.51	0.42
Adj. R-sq.	0.14	0.18	0.10	0.20	0.23	0.31	0.32	0.25	0.31	0.17

Note: [†] significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 5.7.3: Regression Results (Smaller Firms Only)

Property Dispute Scenario – Firms with less than 250 employees

	Lawyers	Courts	Law Enf.	Gov. Officials	Courts	Law Enf.	Gov. Officials	Criminal	Private Sec.	Internal
	(formal)	(formal)	(formal)	(formal)	(informal)	(informal)	(informal)	Rackets	Agency	Security
Tax Violator	-0.67 [†] (0.37)	-0.66 (0.40)	-0.30 (0.49)	-0.40 (0.49)	0.39 (0.55)	0.76 (0.53)	0.85 [†] (0.50)	0.74* (0.30)	0.53 (0.44)	0.18 (0.45)
Privatized*Consolidated (marginal effects)	-0.03 (0.90)	0.46 (0.74)	1.50 (1.03)	1.18 (1.00)	-1.93 (1.18)	-0.99 (1.26)	-1.32 (1.16)	-0.66 (0.55)	-0.30 (0.66)	-1.20 (1.10)
Others Unlawful	-0.01 (0.31)	-0.07 (0.36)	-0.29 (0.42)	-0.19 (0.43)	0.89* (0.45)	0.88* (0.44)	0.37 (0.45)	0.52 [†] (0.29)	0.40 (0.38)	-0.08 (0.43)
Privatized	0.21 (0.72)	0.42 (0.67)	-1.44 [†] (0.86)	-0.17 (0.86)	2.13* (0.89)	0.38 (0.98)	1.02 (0.96)	-0.49 (0.46)	-1.20* (0.59)	-0.11 (0.92)
Consolidated	0.46 (0.39)	0.17 (0.49)	-0.72 (0.49)	-0.02 (0.50)	0.07 (0.57)	-0.59 (0.49)	-0.40 (0.50)	-0.11 (0.33)	-0.55 (0.39)	-0.39 (0.47)
Privatized*Consolidated	-0.48 (0.92)	0.29 (0.82)	2.23* (1.11)	1.20 (1.05)	-2.00 (1.30)	-0.39 (1.33)	-0.92 (1.20)	-0.55 (0.57)	0.25 (0.70)	-0.81 (1.14)
Firm Age	0.12 (0.12)	0.21 (0.16)	0.14 (0.14)	-0.01 (0.15)	0.02 (0.19)	0.03 (0.17)	-0.14 (0.17)	0.11 (0.12)	0.22 [†] (0.13)	0.07 (0.15)
Foreign Owned	0.70 (0.50)	1.21* (0.59)	-0.01 (0.65)	-0.46 (0.70)	1.00 (0.77)	0.57 (0.79)	0.84 (0.79)	0.59 (0.49)	0.45 (0.72)	0.67 (0.70)
Gov. Owned	0.19 (0.83)	0.21 (0.90)	0.18 (0.87)	0.59 (0.89)	-0.95 (1.38)	-0.92 (0.99)	-0.96 (1.35)	-1.02 [†] (0.54)	-1.57 [†] (0.85)	-0.74 (1.07)
Bus. Assoc.	-0.38 (0.30)	-0.43 (0.33)	0.40 (0.37)	0.54 (0.44)	0.75 (0.47)	0.43 (0.37)	0.18 (0.41)	0.28 (0.31)	0.26 (0.38)	0.75 [†] (0.45)
Rights Violated	-0.07 (0.36)	0.51 (0.45)	0.37 (0.41)	0.46 (0.47)	0.39 (0.49)	0.73 (0.48)	1.01* (0.44)	0.17 (0.27)	0.41 (0.42)	0.17 (0.44)
Litigated	-0.03 (0.45)	-0.49 (0.48)	0.51 (0.52)	-0.75 (0.48)	-0.10 (0.56)	-0.09 (0.57)	-0.33 (0.49)	0.37 (0.33)	-0.85* (0.38)	0.52 (0.50)
Legal Ed.	-0.21 (0.37)	0.00 (0.45)	-0.22 (0.56)	0.19 (0.50)	0.22 (0.60)	0.03 (0.46)	0.73 (0.50)	0.37 (0.40)	0.03 (0.37)	-0.07 (0.48)
Age	0.00 (0.01)	0.04 [†] (0.02)	-0.03 (0.02)	-0.01 (0.02)	0.01 (0.02)	-0.02 (0.02)	-0.00 (0.02)	-0.03* (0.01)	-0.01 (0.02)	-0.00 (0.02)
Male	0.33 (0.31)	0.14 (0.39)	-0.23 (0.41)	0.04 (0.43)	0.41 (0.44)	0.00 (0.42)	0.26 (0.41)	-0.18 (0.31)	0.55 (0.37)	-0.50 (0.41)
Constant	6.21*** (1.35)	3.97* (1.64)	10.23*** (1.58)	7.18*** (1.65)	1.74 (1.68)	4.03* (1.76)	2.97 [†] (1.73)	3.50** (1.11)	2.62 [†] (1.45)	4.63** (1.57)
City Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm Size Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm Finances Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job Title Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	170	170	170	170	170	170	170	170	170	170
R-sq.	0.34	0.36	0.33	0.26	0.30	0.32	0.32	0.42	0.38	0.42
Adj. R-sq.	0.15	0.17	0.14	0.05	0.10	0.12	0.12	0.25	0.20	0.26

Note: † significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 5.7.4: Regression Results (Smaller Firms Only)

Debt Dispute Scenario – Firms with less than 250 employees

	Lawyers	Courts	Law Enf.	Gov. Officials	Courts	Law Enf.	Gov. Officials	Criminal	Private Sec.	Internal
	(formal)	(formal)	(formal)	(formal)	(informal)	(informal)	(informal)	Rackets	Agency	Security
Tax Violator	-0.03 (0.27)	-0.58 [†] (0.34)	0.11 (0.45)	0.13 (0.47)	0.56 (0.56)	0.76 (0.56)	1.08* (0.52)	0.63* (0.28)	0.48 (0.37)	0.46 (0.43)
Privatized*Consolidated (<i>marginal effects</i>)	-0.24 (0.61)	0.61 (0.72)	1.96* (0.95)	0.30 (1.08)	-1.23 (1.31)	-0.66 (1.21)	-1.37 (1.10)	-0.60 (0.46)	-0.55 (0.57)	-1.48 (1.20)
Others Unlawful	0.14 (0.21)	-0.02 (0.32)	0.48 (0.39)	-0.24 (0.46)	0.72 (0.45)	0.54 (0.46)	0.19 (0.44)	0.62 [†] (0.32)	0.74* (0.33)	0.21 (0.43)
Privatized	-0.30 (0.47)	-0.52 (0.62)	-0.66 (0.90)	0.30 (0.87)	1.53 (0.96)	0.40 (1.00)	1.49 (0.95)	-0.34 (0.42)	-0.68 (0.51)	0.46 (0.92)
Consolidated	-0.32 (0.27)	-0.37 (0.36)	-0.46 (0.48)	-0.17 (0.48)	-0.31 (0.50)	-0.90 [†] (0.51)	-0.31 (0.45)	-0.10 (0.31)	-0.57 (0.37)	-0.40 (0.42)
Privatized*Consolidated	0.09 (0.67)	0.98 (0.79)	2.42* (1.06)	0.47 (1.14)	-0.92 (1.41)	0.24 (1.29)	-1.06 (1.12)	-0.49 (0.53)	0.02 (0.62)	-1.07 (1.21)
Firm Age	0.02 (0.11)	0.09 (0.14)	0.02 (0.15)	-0.08 (0.15)	-0.01 (0.18)	-0.05 (0.19)	-0.04 (0.16)	0.10 (0.13)	0.03 (0.13)	0.13 (0.15)
Foreign Owned	0.71* (0.35)	1.11* (0.51)	-0.05 (0.56)	0.73 (0.69)	1.11 (0.85)	0.26 (0.75)	0.51 (0.69)	0.63 (0.53)	0.46 (0.56)	0.49 (0.74)
Gov. Owned	-0.46 (0.57)	-0.08 (0.84)	0.05 (0.84)	0.74 (1.04)	-1.44 (1.45)	-0.90 (1.17)	-0.78 (1.11)	-0.65 (0.45)	-1.25* (0.55)	-1.02 (1.08)
Bus. Assoc.	-0.41 (0.25)	-0.36 (0.28)	-0.07 (0.40)	-0.44 (0.42)	0.51 (0.47)	0.14 (0.39)	0.08 (0.38)	0.07 (0.32)	0.65 [†] (0.38)	0.80 [†] (0.45)
Rights Violated	-0.12 (0.26)	0.72* (0.33)	0.84 [†] (0.45)	0.24 (0.50)	0.65 (0.48)	0.08 (0.46)	0.03 (0.47)	0.20 (0.30)	0.46 (0.37)	0.33 (0.44)
Litigated	0.12 (0.26)	-0.88* (0.43)	-0.65 (0.46)	-0.43 (0.50)	-0.13 (0.58)	0.08 (0.58)	0.20 (0.50)	0.32 (0.31)	-0.48 (0.35)	-0.10 (0.53)
Legal Ed.	0.05 (0.37)	0.27 (0.37)	0.18 (0.58)	-0.20 (0.59)	0.17 (0.64)	0.87 [†] (0.49)	0.82 [†] (0.47)	0.42 (0.45)	0.21 (0.39)	0.29 (0.46)
Age	0.00 (0.01)	0.02 (0.02)	-0.03 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.03 (0.02)	-0.03 (0.02)	-0.02 (0.02)	-0.02 (0.01)	-0.01 (0.02)
Male	0.23 (0.26)	0.33 (0.32)	-0.66 (0.45)	-0.47 (0.44)	0.17 (0.44)	-0.53 (0.41)	-0.42 (0.36)	-0.24 (0.31)	-0.25 (0.32)	-0.62 (0.41)
Constant	6.47*** (0.92)	5.02*** (1.36)	8.80*** (1.60)	8.10*** (1.70)	2.58 (1.85)	5.15*** (1.79)	4.99*** (1.77)	3.37*** (1.20)	4.64*** (1.45)	4.22* (1.72)
City Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm Size Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm Finances Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job Title Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	170	170	170	170	170	170	170	170	170	170
R-sq.	0.24	0.47	0.44	0.31	0.31	0.36	0.39	0.37	0.45	0.43
Adj. R-sq.	0.02	0.32	0.27	0.11	0.11	0.18	0.21	0.18	0.29	0.26

Note: [†] significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

6 Experiential Learning as Alternative Explanation

As noted in footnote 14 of the article, a potential explanatory variable that could affect firms' property security strategies pertains to *experiential learning*. If market-supporting legal institutions are conceptualized as a new technology, then a long line of economics research beginning with Arrow (1962) emphasizes that average costs fall over time as firms gain experience engaging in a set of practices.³ More broadly, given the revolutionary change from a command to a market economy experienced by Russian firms, it is possible that firms became more adept at using market-supporting institutions over time merely from operating in a market system, even when they did directly engage legal institutions such as courts.

On the one hand, a theory of experiential learning and a theory of institutional demand are fully complementary: Both approaches emphasize that firm-level variables – not merely the effectiveness of state institutions – play a fundamental role in whether firms employ legal or illegal strategies. On the other hand, if a learning effect simultaneously influences Russian firms' increased ownership consolidation, tax compliance, or changing expectations about other firms' strategies (the article's key explanatory variables) as well as firms' increased reliance on law (the dependent variable), then the observed correlations between demand-side variables and property security strategies could be spurious.⁴

At the outset, it should therefore be emphasized that two key variables proxying for experiential learning – litigation experience and firm age – are included in all regression analyses presented in the article (Figures 2-4 and Tables A1 and A2). The fact that the article's key findings are robust even controlling for these variables should mitigate concerns about spurious correlation. Moreover, in the regression analyses shown in Tables A1 and A2, the *Litigation* variable is statistically insignificant in all but two specifications, while the *Firm Age* variable is insignificant in all but one specification.

The current appendix more comprehensively assesses the possible implications of experiential learning for property security strategies. I examine the two hypotheses introduced above: (1) Firms with more litigation experience should be more likely to employ legal strategies; and (2) firms with more experience operating in a market economy should be more likely to employ legal strategies.⁵

Tables 6.1-6.8 of this appendix present analyses of litigation experience, using a dichotomous variable that takes a value of 1 if a firm has Litigated or faced litigation in the previous three years. Forty-six percent of firms in the sample have recent litigation experience.⁶ In

³The “learning-by-doing” literature focuses predominantly on production technologies and, to the best of my knowledge, has not been applied explicitly to technologies for contracting and property rights protection.

⁴I thank an anonymous reviewer for drawing attention to this concern.

⁵More recent studies emphasize numerous types of learning other than learning-by-doing, including the spillover effects of learning from others (Malerba, 1992; Foster and Rosenzweig, 1995). With spillover, productivity-enhancing technologies adopted by leading enterprises can improve the productivity of business partners. With respect to property security strategies, learning-by-interacting points to coordination effects similar to those emphasized in the article, albeit with more emphasis on virtuous than on vicious cycles: Law becomes more valuable when firms believe that a critical mass of potential business partners also recognize law as a focal point. As this third hypothesis seems to point to another mechanism underlying the coordination effects analyzed in the article, rather than to an alternative explanation, this appendix focuses on the hypotheses related to litigation experience and firm age.

⁶Of firms with litigation experience, 60 percent had been both a plaintiff and defendant, 31 percent had

order to examine the relative explanatory potential of the litigation experience hypothesis compared to the article's key explanatory variables, I present five specifications for each strategy. The first regresses each strategy on the litigation experience variable, the second on the tax violations variable, the third on the variable measuring expectations of other firms' strategies, the fourth on the interaction of the privatization and consolidated ownership variables, and the fifth on all explanatory variables of interest. (All specifications also include the full set of control variables used in the article's main specifications.) This fifth specification is the same specification used for all regressions in the article.

As the litigation experience hypothesis would predict, firms that have previously Litigated have a higher willingness to respond to a property dispute by using lawyers out of court, litigating, or turning to law enforcement in a formal capacity – but the results are statistically significant only for the use of law enforcement. Moreover, there appears to be no relationship between litigation experience and legal strategies for resolving debt disputes. Similarly, for both the property and debt dispute scenarios, no correlations between corrupt strategies and litigation experience emerge. Firms with litigation experience do appear less willing to utilize strategies based on violence. But while these results are statistically significant for several strategies when the litigation experience variable is entered into the regression with only the base set of control variables, the results are no longer robust in the fully saturated specifications (i.e., the specifications including the article's main demand-side explanatory variables), with the lone exception of the specification analyzing the use of private security agencies as a response to a property dispute.⁷

In summary, the relationships between litigation experience and firm strategies are far less robust than the relationships between firm strategies and the demand-side variables featured in the article. Moreover, even where correlations between litigation experience and firm strategies exist, they frequently lose their statistical significance when both the experience and the key demand-side variables are simultaneously included in the regression.

Tables 6.9-6.16 perform similar analyses but focus on firm age rather than on litigation experience, employing an ordinal variable where 1 indicates that the firm was founded or privatized in the last 3 years; 2 indicates in last 5 years; 4, in the last 10 years; 5, in the last 15 years; and 6, more than 15 years ago. Even fewer statistically significant results emerge than for the litigation experience variable. Older firms express a greater willingness to use courts to respond to property disputes, but a similar relationship is not apparent for debt disputes. The analyses produce no other robust correlations, even when strategies are regressed on firm age without including the demand-side explanatory variables of interest.

Overall, the evidence in support of experiential learning is modest. More importantly, the key explanatory variables analyzed in the article – tax compliance, ownership consolidation, and expectations about other firms' strategies – remain robust predictors of property security strategies even when proxies for learning, such as litigation experience and firm age, are taken into account.

been only a plaintiff, and 9 percent had been only a defendant. Results are qualitatively similar if a dummy variable for plaintiffs is used in place of the litigation experience variable.

⁷To ensure that these results are not sensitive to my use of a dichotomous *Litigation* variable, I additionally analyzed an ordinal litigation variable that measures not merely whether a firm has recent litigation experience but how many times a firm has been in court. The results, which are available upon request, are similar to those with the dichotomous variable.

Table 6.1: Litigation Experience and Legal Strategies (Lawyers and Courts)

	Property Dispute Scenario			
	Lawyers	Lawyers	Lawyers	Courts
Litigated	0.39 (0.28)		0.45 (0.28)	0.29 (0.29)
Tax Violator		-0.47* (0.23)	-0.42† (0.25)	-0.62* (0.28)
Others Unlawful		-0.45* (0.19)	-0.39† (0.20)	-0.48* (0.22)
Privatized*Consolidated (<i>marginal effects</i>)			0.19 (0.40)	0.33 (0.37)
Privatized		-0.19 (0.39)	-0.29 (0.40)	-0.17 (0.42)
Consolidated		0.26 (0.32)	0.34 (0.31)	0.03 (0.34)
Privatized*Consolidated		-0.07 (0.47)	-0.05 (0.47)	0.30 (0.48)
Firm Age	0.11 (0.08)	0.10 (0.08)	0.11 (0.08)	0.26* (0.10)
Foreign Owned	0.09 (0.27)	0.14 (0.26)	0.19 (0.27)	0.27* (0.10)
Gov. Owned	-0.14 (0.32)	-0.07 (0.34)	-0.02 (0.33)	0.76* (0.31)
Bus. Assoc.	0.11 (0.21)	0.11 (0.21)	0.12 (0.21)	0.66* (0.30)
Rights Violated	-0.05 (0.23)	0.08 (0.20)	0.15 (0.21)	0.28 (0.22)
Legal Ed.	-0.14 (0.25)	-0.08 (0.26)	-0.12 (0.26)	-0.04 (0.30)
Age	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.03** (0.01)
Male	0.31 (0.21)	0.34 (0.21)	0.23 (0.20)	0.16 (0.23)
Constant	5.55*** (0.92)	5.61*** (0.93)	5.68*** (0.93)	2.83*** (0.98)
City dummies	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes
Observations	301	301	301	301
R-sq.	0.21	0.22	0.21	0.26
Adj. R-sq.	0.11	0.12	0.11	0.16

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.2: Litigation Experience and Legal Strategies (Law Enforcement and Gov. Officials)

	Property Dispute Scenario							
	Law Enf.	Law Enf.	Law Enf.	Law Enf.	Gov. Officials	Gov. Officials	Gov. Officials	Gov. Officials
Litigated	0.52 [†] (0.30)			0.64* (0.31)	-0.29 (0.33)			-0.27 (0.32)
Tax Violator		-0.37 (0.32)		-0.27 (0.34)		-0.30 (0.34)		-0.20 (0.34)
Others Unlawful		-0.39 (0.25)		-0.31 (0.26)		-0.69* (0.27)		-0.68* (0.28)
Privatized*Consolidated (<i>marginal effects</i>)				-0.36 (0.51)			0.22 (0.53)	0.34 (0.52)
Privatized				-0.97 [†] (0.50)			-0.30 (0.55)	-0.25 (0.54)
Consolidated				-0.60 [†] (0.36)			0.02 (0.41)	0.07 (0.40)
Privatized*Consolidated				0.24 (0.62)			0.21 (0.63)	0.27 (0.63)
Firm Age	0.09 (0.10)	0.09 (0.10)	0.10 (0.10)	0.12 (0.10)	0.13 (0.10)	0.11 (0.10)	0.13 (0.11)	0.12 (0.11)
Foreign Owned	-0.41 (0.38)	-0.37 (0.38)	-0.32 (0.38)	-0.26 (0.40)	-0.73 [†] (0.43)	-0.72 (0.44)	-0.74 [†] (0.43)	-0.60 (0.44)
Gov. Owned	-0.10 (0.39)	-0.02 (0.41)	-0.06 (0.40)	-0.05 (0.39)	0.00 (0.41)	0.19 (0.38)	0.17 (0.43)	0.31 (0.44)
Bus. Assoc.	0.66* (0.26)	0.66* (0.26)	0.67*** (0.26)	0.69** (0.25)	0.71** (0.27)	0.85** (0.27)	0.87** (0.27)	0.89** (0.27)
Rights Violated	0.18 (0.29)	0.37 (0.26)	0.43 (0.26)	0.47 [†] (0.29)	0.27 (0.31)	0.10 (0.28)	0.12 (0.28)	0.29 (0.31)
Legal Ed.	0.18 (0.39)	0.23 (0.39)	0.21 (0.39)	0.21 (0.38)	0.40 (0.38)	0.41 (0.38)	0.38 (0.38)	0.42 (0.39)
Age	-0.03 [†] (0.01)	-0.02 [†] (0.01)	-0.02 [†] (0.01)	-0.02 [†] (0.01)	-0.02 [†] (0.01)	-0.02 [†] (0.01)	-0.02 [†] (0.01)	-0.02 [†] (0.01)
Male	0.09 (0.25)	0.10 (0.25)	0.01 (0.26)	0.09 (0.26)	0.09 (0.26)	0.12 (0.26)	0.10 (0.26)	0.01 (0.26)
Constant	7.55*** (1.01)	7.51*** (1.01)	7.60*** (1.00)	7.58*** (1.04)	8.03*** (1.13)	6.66*** (1.16)	6.44*** (1.23)	6.84*** (1.22)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301	301	301
R-sq.	0.22	0.22	0.22	0.23	0.25	0.25	0.25	0.27
Adj. R-sq.	0.12	0.12	0.12	0.13	0.15	0.15	0.14	0.16

[†] significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.3: Litigation Experience and Corruption

Property Dispute Scenario

	Courts (informal)	Courts (informal)	Courts (informal)	Law Enf. (informal)	Law Enf. (informal)	Law Enf. (informal)	Law Enf. (informal)	Gov. Off. (informal)	Gov. Off. (informal)	Gov. Off. (informal)	Gov. Off. (informal)
Litigated	0.15 (0.34)			-0.07 (0.34)			0.02 (0.33)	-0.25 (0.33)			-0.17 (0.33)
Tax Violator		0.68* (0.34)		1.04** (0.36)			0.98** (0.36)		1.14** (0.35)		1.10** (0.36)
Others Unlawful			0.66* (0.28)		0.74** (0.26)		0.67* (0.27)		0.45† (0.26)		0.34 (0.26)
Privatized*Consolidated (marginal effects)			-1.05† (0.55)			-1.10* (0.55)	-1.21 (0.53)				-0.96† (0.50)
Privatized		0.48 (0.57)		-0.01 (0.11)		-0.23 (0.59)	-0.28 (0.59)				0.08 (0.56)
Consolidated		0.16 (0.42)		0.22 (0.42)		-0.60 (0.41)	-0.77† (0.42)				-0.44 (0.42)
Privatized*Consolidated		-1.21† (0.68)		-1.20† (0.68)		-0.51 (0.67)	-0.44 (0.66)				-0.58 (0.63)
Firm Age	-0.06 (0.13)	-0.03 (0.13)	-0.05 (0.13)	-0.03 (0.13)	0.03 (0.11)	0.02 (0.11)	0.07 (0.12)	-0.13 (0.12)	-0.08 (0.12)	-0.13 (0.12)	-0.06 (0.12)
Foreign Owned	0.48 (0.44)	0.43 (0.42)	0.36 (0.44)	0.33 (0.43)	0.14 (0.43)	0.30 (0.43)	0.12 (0.43)	0.08 (0.42)	-0.01 (0.43)	-0.02 (0.42)	-0.01 (0.43)
Gov. Owned	0.19 (0.43)	0.12 (0.44)	0.19 (0.43)	-0.09 (0.44)	-0.34 (0.46)	-0.54 (0.44)	-0.71 (0.45)	-0.09 (0.48)	-0.25 (0.48)	-0.12 (0.47)	-0.44 (0.49)
Bus. Assoc.	0.66* (0.31)	0.65* (0.31)	0.64* (0.31)	0.62* (0.31)	0.33 (0.27)	0.35 (0.27)	0.31 (0.26)	0.37 (0.28)	0.36 (0.28)	0.36 (0.28)	0.34 (0.28)
Rights Violated	0.34 (0.33)	0.40 (0.29)	0.31 (0.29)	0.34 (0.32)	0.58* (0.29)	0.65* (0.29)	0.57† (0.33)	0.38 (0.31)	0.31 (0.28)	0.23 (0.28)	0.39 (0.31)
Legal Ed.	0.35 (0.43)	0.30 (0.44)	0.35 (0.42)	0.19 (0.44)	0.24 (0.40)	0.33 (0.40)	0.26 (0.38)	0.86* (0.40)	0.75† (0.42)	0.84* (0.39)	0.75† (0.41)
Age	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	-0.01 (0.02)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)
Male	0.45 (0.29)	0.38 (0.29)	0.54† (0.29)	0.37 (0.30)	-0.02 (0.27)	0.06 (0.28)	0.08 (0.28)	0.35 (0.26)	0.25 (0.26)	0.43 (0.26)	0.28 (0.28)
Constant	1.83 (1.23)	1.46 (1.25)	1.35 (1.21)	1.04 (1.28)	3.18** (1.17)	4.00** (1.29)	3.29** (1.25)	3.23** (1.22)	2.82** (1.18)	3.04* (1.23)	2.86* (1.22)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
R-sq.	0.22	0.24	0.24	0.23	0.27	0.25	0.32	0.24	0.29	0.24	0.31
Adj. R-sq.	0.12	0.14	0.14	0.13	0.17	0.15	0.21	0.14	0.19	0.14	0.20

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.4: Litigation Experience and Violence

Property Dispute Scenario

	Criminal Racket		Criminal Racket		Criminal Racket		Private Sec. Agency		Private Sec. Agency		Private Sec. Agency		Internal Security		Internal Security		Internal Security	
Litigated	-0.43 [†] (0.22)		-0.28 (0.22)	-0.61* (0.25)														
Tax Violator		0.86*** (0.26)	0.74** (0.25)	0.52 [†] (0.30)														
Others Unlawful			0.49* (0.21)	0.31 (0.22)														
Privatized*Consolidated (marginal effects)			0.14 (0.26)	0.05 (0.26)														
Privatized			-0.52 (0.35)	-0.48 (0.36)														
Consolidated			0.22 (0.27)	0.09 (0.27)														
Privatized*Consolidated			-0.08 (0.36)	-0.04 (0.35)														
Firm Age	-0.01 (0.08)	0.02 (0.08)	0.01 (0.08)	0.05 (0.09)	0.06 (0.09)	0.04 (0.08)	0.08 (0.09)	0.11 (0.09)	0.09 (0.09)	0.02 (0.12)	0.03 (0.12)	0.03 (0.12)	0.03 (0.12)	0.03 (0.12)	0.03 (0.12)	0.03 (0.12)	0.03 (0.12)	0.04 (0.12)
Foreign Owned	0.64 [†] (0.36)	0.56 (0.35)	0.51 (0.36)	0.38 (0.41)	0.33 (0.41)	0.31 (0.41)	0.34 (0.40)	0.34 (0.40)	0.34 (0.40)	0.24 (0.43)	0.23 (0.43)	0.18 (0.43)	0.27 (0.44)	0.20 (0.44)	0.27 (0.44)	0.20 (0.44)	0.20 (0.44)	0.20 (0.44)
Gov. Owned	0.06 (0.32)	-0.08 (0.32)	0.02 (0.33)	-0.11 (0.35)	-0.22 (0.35)	-0.16 (0.34)	0.00 (0.35)	-0.07 (0.36)	-0.07 (0.36)	-0.02 (0.52)	-0.02 (0.52)	-0.03 (0.51)	-0.03 (0.51)	-0.27 (0.51)	-0.24 (0.51)	-0.27 (0.51)	-0.27 (0.51)	-0.27 (0.51)
Bus. Assoc.	0.08 (0.23)	0.06 (0.23)	0.05 (0.23)	0.03 (0.24)	0.02 (0.24)	0.02 (0.24)	0.02 (0.24)	0.05 (0.24)	0.05 (0.24)	0.63* (0.31)	0.63* (0.31)	0.62* (0.31)	0.62* (0.31)	0.60 [†] (0.31)	0.61 [†] (0.31)	0.60 [†] (0.31)	0.60 [†] (0.31)	0.60 [†] (0.31)
Rights Violated	0.22 (0.22)	0.08 (0.20)	-0.02 (0.22)	0.13 (0.22)	0.18 (0.22)	0.18 (0.22)	0.21 (0.22)	0.10 (0.25)	0.10 (0.26)	0.36 (0.31)	0.36 (0.31)	0.36 (0.31)	0.36 (0.31)	0.37 (0.32)	0.38 (0.29)	0.37 (0.32)	0.37 (0.32)	0.37 (0.32)
Legal Ed.	0.78* (0.32)	0.69* (0.31)	0.76* (0.33)	0.69* (0.29)	0.65* (0.30)	0.65* (0.29)	0.27 (0.30)	0.20 (0.29)	0.20 (0.29)	0.42 (0.39)	0.41 (0.39)	0.42 (0.38)	0.40 (0.38)	0.40 (0.38)	0.40 (0.38)	0.39 (0.38)	0.39 (0.38)	0.39 (0.38)
Age	-0.04*** (0.01)	-0.04*** (0.01)	-0.04*** (0.01)	-0.02* (0.01)	-0.02* (0.01)	-0.02* (0.01)	-0.02* (0.01)	-0.02* (0.01)	-0.02* (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Male	-0.24 (0.20)	-0.31 (0.20)	-0.13 (0.21)	-0.24 (0.23)	-0.24 (0.23)	-0.24 (0.23)	0.26 (0.24)	0.33 (0.24)	0.26 (0.23)	-0.11 (0.27)	-0.11 (0.27)	-0.06 (0.28)	-0.14 (0.28)	-0.10 (0.28)	-0.14 (0.28)	-0.10 (0.28)	-0.10 (0.28)	-0.10 (0.28)
Constant	4.28*** (0.85)	4.06*** (0.84)	4.05*** (0.85)	4.02*** (0.80)	3.42*** (0.80)	4.21*** (0.80)	4.20*** (1.06)	4.18*** (1.03)	3.77*** (1.05)	4.40*** (1.09)	4.36*** (1.08)	4.20*** (1.09)	4.58*** (1.15)	4.32*** (1.19)	4.58*** (1.15)	4.32*** (1.19)	4.32*** (1.19)	4.32*** (1.19)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301	301	301	301	301	301	301	301	301	301	301	301	301
R-sq.	0.28	0.33	0.30	0.26	0.26	0.26	0.26	0.27	0.30	0.28	0.29	0.28	0.29	0.29	0.28	0.29	0.29	0.30
Adj. R-sq.	0.19	0.24	0.21	0.16	0.16	0.16	0.16	0.17	0.19	0.17	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.5: Litigation Experience and Legal Strategies (Lawyers and Courts)

	Debt Dispute Scenario			
	Lawyers	Lawyers	Lawyers	Courts
Litigated	0.13 (0.19)	0.15 (0.19)	-0.15 (0.24)	-0.19 (0.24)
Tax Violator	-0.05 (0.21)	-0.00 (0.21)	-0.58* (0.23)	-0.52* (0.24)
Others Unlawful	-0.19 (0.17)	-0.20 (0.17)	-0.31† (0.19)	-0.22 (0.19)
Privatized*Consolidated (marginal effects)		0.22 (0.37)	0.27 (0.37)	0.06 (0.32)
Privatized		-0.23 (0.34)	-0.28 (0.33)	-0.40 (0.34)
Consolidated		-0.09 (0.24)	-0.09 (0.24)	-0.46† (0.26)
Privatized*Consolidated		0.31 (0.42)	0.35 (0.42)	0.52 (0.41)
Firm Age	0.07 (0.08)	0.07 (0.08)	0.15 (0.10)	0.13 (0.10)
Foreign Owned	0.01 (0.24)	0.05 (0.24)	0.30 (0.28)	0.40 (0.29)
Gov. Owned	-0.04 (0.32)	-0.03 (0.32)	0.13 (0.37)	0.20 (0.36)
Bus. Assoc.	-0.22 (0.16)	-0.21 (0.16)	-0.03 (0.20)	-0.01 (0.19)
Rights Violated	-0.02 (0.19)	0.03 (0.18)	0.37 (0.23)	0.39† (0.23)
Legal Ed.	0.03 (0.25)	0.04 (0.25)	0.27 (0.25)	0.38 (0.25)
Age	-0.00 (0.01)	-0.00 (0.01)	0.01 (0.01)	0.01 (0.01)
Male	0.04 (0.18)	0.04 (0.18)	0.32† (0.19)	0.36† (0.20)
Constant	5.72*** (0.80)	5.70*** (0.81)	5.79*** (0.84)	5.90*** (0.93)
City dummies	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes
Observations	301	301	301	301
R-sq.	0.19	0.19	0.32	0.33
Adj. R-sq.	0.08	0.08	0.24	0.24

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.6: Litigation Experience and Legal Strategies (Law Enforcement and Gov. Officials)

	Law Enf.	Law Enf.	Law Enf.	Law Enf.	Gov. Officials	Gov. Officials	Gov. Officials	Gov. Officials
Debt Dispute Scenario								
Litigated	-0.20 (0.33)			-0.20 (0.35)	-0.20 (0.34)			-0.18 (0.34)
Tax Violator		0.07 (0.34)		0.06 (0.35)		0.02 (0.33)		0.12 (0.34)
Others Unlawful			0.09 (0.27)	0.11 (0.28)			-0.59* (0.27)	-0.59* (0.29)
Privatized*Consolidated (marginal effects)				-0.32 (0.53)	-0.36 (0.55)		-0.36 (0.52)	-0.25 (0.51)
Privatized				-0.05 (0.57)	0.01 (0.58)		-0.06 (0.56)	-0.05 (0.55)
Consolidated				-0.24 (0.42)	-0.25 (0.42)		-0.12 (0.42)	-0.12 (0.42)
Privatized*Consolidated				-0.09 (0.68)	-0.11 (0.69)		-0.24 (0.64)	-0.13 (0.64)
Firm Age	0.11 (0.11)	0.11 (0.11)	0.10 (0.11)	0.11 (0.11)	0.12 (0.11)	0.13 (0.11)	0.14 (0.11)	0.14 (0.11)
Foreign Owned	-0.32 (0.42)	-0.35 (0.42)	-0.36 (0.42)	-0.33 (0.44)	-0.12 (0.42)	-0.13 (0.42)	-0.01 (0.42)	-0.00 (0.43)
Gov. Owned	0.13 (0.45)	0.11 (0.45)	0.12 (0.45)	0.05 (0.46)	0.04 (0.47)	0.46 (0.45)	0.48 (0.45)	0.43 (0.44)
Bus. Assoc.	0.16 (0.29)	0.16 (0.29)	0.15 (0.29)	0.16 (0.29)	0.15 (0.29)	-0.08 (0.29)	-0.07 (0.29)	-0.06 (0.29)
Rights Violated	0.61† (0.32)	0.54† (0.29)	0.53† (0.29)	0.55† (0.30)	0.61† (0.32)	-0.01 (0.29)	-0.05 (0.29)	0.08 (0.33)
Legal Ed.	0.68 (0.45)	0.66 (0.45)	0.67 (0.45)	0.69 (0.46)	0.69 (0.45)	0.12 (0.40)	0.09 (0.40)	0.11 (0.40)
Age	-0.03† (0.01)	-0.03* (0.01)	-0.03* (0.01)	-0.03† (0.01)	-0.03† (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Male	-0.25 (0.28)	-0.25 (0.29)	-0.23 (0.28)	-0.24 (0.28)	-0.24 (0.29)	-0.12 (0.28)	-0.12 (0.28)	-0.22 (0.29)
Constant	6.67*** (1.15)	6.71*** (1.13)	6.69*** (1.15)	6.92*** (1.27)	6.77*** (1.29)	5.78*** (1.20)	5.89*** (1.30)	6.16*** (1.28)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301	301	301
R-sq.	0.27	0.27	0.27	0.27	0.28	0.24	0.24	0.26
Adj. R-sq.	0.18	0.18	0.18	0.17	0.17	0.14	0.14	0.15

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.7: Litigation Experience and Corruption

Debt Dispute Scenario											
	Courts	Courts	Courts	Law Enf.	Law Enf.	Law Enf.	Law Enf.	Gov. Off.	Gov. Off.	Gov. Off.	Gov. Off.
	(informal)	(informal)	(informal)	(informal)	(informal)	(informal)	(informal)	(informal)	(informal)	(informal)	(informal)
Litigated	0.04 (0.34)		0.09 (0.35)	0.03 (0.36)		0.02 (0.32)	0.05 (0.33)				0.10 (0.31)
Tax Violator		0.81* (0.33)	0.73* (0.34)	1.10** (0.37)		1.09** (0.37)	1.30*** (0.34)				1.31*** (0.34)
Others Unlawful			0.61* (0.29)	0.60* (0.26)		0.51† (0.27)		0.27 (0.25)			0.13 (0.26)
Privatized*Consolidated (marginal effects)			-0.98† (0.56)			-1.15* (0.54)					-1.15* (0.51)
Privatized			0.22 (0.58)			0.35 (0.60)					0.36 (0.56)
Consolidated			-0.21 (0.39)			-0.65 (0.42)					-0.36 (0.38)
Privatized*Consolidated			-0.77 (0.69)			-0.50 (0.66)					-0.79 (0.61)
Firm Age	-0.09 (0.12)	-0.05 (0.13)	-0.07 (0.13)	-0.08 (0.12)	-0.03 (0.12)	-0.07 (0.12)	-0.11 (0.11)	-0.06 (0.11)	-0.11 (0.11)	-0.11 (0.12)	-0.04 (0.12)
Foreign Owned	0.46 (0.44)	0.40 (0.43)	0.50 (0.44)	-0.06 (0.43)	-0.14 (0.43)	0.01 (0.45)	0.08 (0.40)	-0.01 (0.40)	0.03 (0.41)	0.12 (0.40)	0.01 (0.41)
Gov. Owned	0.01 (0.46)	-0.09 (0.46)	-0.00 (0.47)	-0.22 (0.48)	-0.35 (0.49)	-0.53 (0.48)	-0.70 (0.45)	-0.19 (0.46)	-0.03 (0.45)	-0.28 (0.45)	-0.45 (0.47)
Bus. Assoc.	0.52 (0.32)	0.50 (0.32)	0.49 (0.32)	0.24 (0.29)	0.22 (0.28)	0.21 (0.28)	0.13 (0.28)	0.11 (0.27)	0.12 (0.27)	0.10 (0.27)	0.08 (0.26)
Rights Violated	0.34 (0.33)	0.37 (0.30)	0.42 (0.30)	-0.02 (0.35)	0.00 (0.30)	0.00 (0.31)	0.03 (0.32)	0.07 (0.28)	0.01 (0.29)	0.10 (0.28)	0.07 (0.31)
Legal Ed.	0.27 (0.46)	0.20 (0.46)	0.23 (0.47)	0.73† (0.40)	0.64 (0.41)	0.78* (0.39)	0.71† (0.39)	0.61 (0.39)	0.71† (0.39)	0.67† (0.39)	0.59 (0.38)
Age	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Male	0.48† (0.29)	0.41 (0.29)	0.45 (0.30)	-0.20 (0.28)	-0.30 (0.27)	-0.11 (0.28)	0.06 (0.27)	-0.06 (0.27)	0.09 (0.27)	0.01 (0.28)	-0.07 (0.27)
Constant	1.48 (1.26)	1.11 (1.27)	1.05 (1.25)	4.39*** (1.20)	3.88*** (1.19)	4.99*** (1.30)	3.99*** (1.22)	3.38*** (1.21)	3.79*** (1.20)	4.08*** (1.26)	3.63*** (1.26)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301	301	301	301	301	301
R-sq.	0.22	0.25	0.24	0.23	0.28	0.24	0.26	0.32	0.33	0.27	0.28
Adj. R-sq.	0.12	0.15	0.14	0.13	0.18	0.14	0.15	0.21	0.24	0.17	0.18

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.8: Litigation Experience and Violence

	Debt Dispute Scenario												
	Crimal Racket	Crimal Racket	Crimal Racket	Crimal Racket	Private Sec. Agency	Private Sec. Agency	Private Sec. Agency	Private Sec. Agency	Internal Security	Internal Security	Internal Security	Internal Security	
Litigated	-0.23 (0.20)			-0.08 (0.20)	-0.47* (0.23)								
Tax Violator		0.70** (0.21)		0.63** (0.21)	0.59* (0.28)							0.25 (0.34)	0.19 (0.35)
Others Unlawful			0.47** (0.18)	0.38* (0.17)	0.45* (0.21)							0.38 (0.27)	0.38 (0.28)
Privatized*Consolidated (marginal effects)			-0.03 (0.20)	-0.10 (0.20)	-0.12 (0.27)								-0.50 (0.61)
Privatized			-0.62* (0.30)	-0.64* (0.32)	-0.89* (0.37)								0.19 (0.54)
Consolidated			0.02 (0.26)	-0.09 (0.26)	-0.35 (0.32)								-0.21 (0.34)
Privatized*Consolidated			-0.05 (0.30)	-0.00 (0.31)	0.24 (0.39)								-0.29 (0.67)
Firm Age	0.04 (0.08)	0.07 (0.08)	0.04 (0.08)	0.11 (0.08)	-0.02 (0.08)	-0.04 (0.08)						0.11 (0.12)	0.10 (0.12)
Foreign Owned	0.41 (0.29)	0.35 (0.29)	0.31 (0.29)	0.32 (0.28)	0.21 (0.34)	0.17 (0.33)						0.23 (0.42)	0.15 (0.42)
Gov. Owned	0.01 (0.24)	-0.09 (0.26)	-0.01 (0.25)	0.01 (0.25)	0.03 (0.27)	-0.01 (0.26)						0.38 (0.52)	0.23 (0.51)
Bus. Assoc.	-0.02 (0.19)	-0.03 (0.19)	-0.04 (0.19)	-0.02 (0.19)	0.23 (0.22)	0.22 (0.22)						0.60† (0.32)	0.59† (0.32)
Rights Violated	0.28 (0.21)	0.21 (0.19)	0.14 (0.19)	0.27 (0.21)	0.23 (0.23)	0.17 (0.22)						0.27 (0.30)	0.18 (0.28)
Legal Ed.	0.63* (0.29)	0.56* (0.27)	0.62* (0.29)	0.53† (0.27)	0.41 (0.26)	0.41 (0.22)						1.02** (0.37)	1.02** (0.37)
Age	-0.02** (0.01)	-0.02** (0.01)	-0.02** (0.01)	-0.02* (0.01)	-0.02† (0.01)	-0.02† (0.01)						-0.01 (0.01)	-0.01 (0.01)
Male	-0.21 (0.18)	-0.27 (0.18)	-0.13 (0.18)	-0.21 (0.18)	-0.25 (0.20)	-0.13 (0.20)						-0.41 (0.27)	-0.34 (0.28)
Constant	4.06*** (0.82)	3.83*** (0.81)	3.85*** (0.81)	3.43*** (0.82)	5.09*** (0.94)	4.97*** (0.97)						4.32*** (1.12)	4.63*** (1.17)
City dummies	yes	yes	yes	yes	yes	yes						yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes						yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes						yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes						yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes						yes	yes
Observations	301	301	301	301	301	301						301	301
R-sq.	0.23	0.27	0.25	0.31	0.35	0.34						0.29	0.30
Adj. R-sq.	0.13	0.18	0.15	0.20	0.27	0.26						0.19	0.19

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.9: Firm Age and Legal Strategies (Lawyers and Courts)

	Property Dispute Scenario			
	Lawyers	Lawyers	Lawyers	Courts
Firm Age	0.11 (0.08)		0.10 (0.10)	0.26* (0.10)
Tax Violator	-0.47* (0.24)		-0.42† (0.25)	-0.67* (0.27)
Others Unlawful	-0.45* (0.19)		-0.39† (0.20)	-0.50* (0.21)
Privatized*Consolidated (<i>marginal effects</i>)		0.25 (0.39)	0.29 (0.40)	0.41 (0.35)
Privatized		-0.26 (0.40)	-0.29 (0.40)	-0.14 (0.42)
Consolidated		0.26 (0.32)	0.34 (0.31)	0.03 (0.35)
Privatized*Consolidated		-0.01 (0.46)	-0.05 (0.47)	0.38 (0.48)
Foreign Owned	0.09 (0.27)	0.18 (0.27)	0.17 (0.27)	0.66* (0.31)
Gov. Owned	-0.14 (0.32)	-0.14 (0.33)	0.05 (0.33)	0.18 (0.34)
Bus. Assoc.	0.11 (0.23)	0.15 (0.23)	0.14 (0.22)	0.06 (0.28)
Rights Violated	-0.05 (0.23)	-0.07 (0.23)	-0.01 (0.22)	0.22 (0.29)
Litigated	0.39 (0.28)	0.41 (0.27)	0.45 (0.28)	0.30 (0.30)
Legal Ed.	-0.14 (0.25)	-0.06 (0.26)	-0.15 (0.27)	0.21 (0.29)
Age	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.03* (0.01)
Male	0.31 (0.21)	0.35† (0.21)	0.24 (0.20)	0.24 (0.23)
Constant	5.55*** (0.92)	5.94*** (0.91)	5.57*** (1.00)	3.70*** (0.95)
City dummies	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes
Observations	301	301	301	301
R-sq.	0.21	0.22	0.25	0.26
Adj. R-sq.	0.11	0.12	0.11	0.17

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.10: Firm Age and Legal Strategies (Law Enforcement and Gov. Officials)

	Property Dispute Scenario					
	Law Enf.	Law Enf.	Law Enf.	Gov. Officials	Gov. Officials	Gov. Officials
Firm Age	0.09 (0.10)		0.12 (0.10)	0.13 (0.10)		0.12 (0.11)
Tax Violator		-0.37 (0.33)			-0.34 (0.33)	-0.20 (0.34)
Others Unlawful		-0.40 (0.25)				-0.68* (0.28)
Privatized*Consolidated (marginal effects)			-0.29 (0.50)	-0.26 (0.50)		0.24 (0.53)
Privatized			-1.09* (0.51)	-1.13* (0.52)		-0.25 (0.54)
Consolidated			-0.60 (0.37)	-0.55 (0.37)		0.02 (0.40)
Privatized*Consolidated			0.31 (0.62)	0.29 (0.62)		0.22 (0.64)
Gov. Owned	-0.10 (0.39)	-0.06 (0.40)	-0.06 (0.39)	0.00 (0.39)	0.18 (0.41)	0.23 (0.45)
Bus. Assoc.	0.66* (0.26)	0.69** (0.25)	0.74** (0.25)	0.71** (0.25)	0.90*** (0.27)	0.89** (0.27)
Rights Violated	0.18 (0.29)	0.17 (0.29)	0.22 (0.28)	0.22 (0.29)	0.20 (0.31)	0.29 (0.31)
Litigated	0.52† (0.30)	0.51† (0.31)	0.54† (0.30)	0.64* (0.31)	-0.29 (0.33)	-0.27 (0.32)
Legal Ed.	0.18 (0.39)	0.24 (0.39)	0.22 (0.39)	0.21 (0.38)	0.47 (0.38)	0.42 (0.39)
Age	-0.03† (0.01)	-0.02† (0.01)	-0.02† (0.01)	-0.02† (0.01)	-0.02† (0.01)	-0.02† (0.01)
Male	0.09 (0.25)	0.12 (0.25)	0.09 (0.26)	0.09 (0.26)	0.11 (0.26)	0.01 (0.26)
Constant	7.55*** (1.01)	7.86*** (1.03)	7.98*** (1.04)	8.03*** (1.11)	6.42*** (1.13)	6.84*** (1.22)
City dummies	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301
R-sq.	0.22	0.23	0.24	0.26	0.25	0.27
Adj. R-sq.	0.12	0.12	0.12	0.15	0.15	0.16

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.11: Firm Age and Corruption

Property Dispute Scenario										
	Courts (informal)	Courts (informal)	Courts (informal)	Law Enf. (informal)	Law Enf. (informal)	Law Enf. (informal)	Gov. Off. (informal)	Gov. Off. (informal)	Gov. Off. (informal)	Gov. Off. (informal)
Firm Age	-0.06 (0.13)		-0.00 (0.13)	-0.01 (0.11)		0.07 (0.12)	-0.13 (0.12)			-0.06 (0.12)
Tax Violator		0.70* (0.33)		1.03** (0.36)		0.98** (0.36)		1.15** (0.35)		1.10** (0.36)
Others Unlawful				0.67** (0.28)	0.74** (0.26)	0.67* (0.27)		0.46† (0.26)		0.34 (0.26)
Privatized*Consolidated (marginal effects)			-1.04† (0.55)	-1.15* (0.55)	-1.11* (0.54)	-1.21* (0.53)			-1.01* (0.50)	-1.02* (0.49)
Privatized			0.42 (0.58)	0.41 (0.57)	-0.20 (0.59)	-0.28 (0.59)			0.13 (0.56)	0.08 (0.56)
Consolidated			0.16 (0.42)	0.06 (0.42)	-0.60 (0.41)	-0.77† (0.42)			-0.26 (0.41)	-0.44 (0.42)
Privatized*Consolidated			-1.21† (0.68)	-1.20† (0.68)	-0.51 (0.66)	-0.44 (0.66)			-0.74 (0.62)	-0.58 (0.63)
Foreign Owned	0.48 (0.44)	0.42 (0.42)	0.35 (0.44)	0.22 (0.42)	0.08 (0.41)	0.12 (0.43)	0.08 (0.42)	-0.01 (0.43)	0.12 (0.42)	-0.01 (0.43)
Gov. Owned	0.19 (0.43)	0.11 (0.43)	0.18 (0.43)	-0.34 (0.46)	-0.35 (0.44)	-0.71 (0.44)	-0.09 (0.48)	-0.23 (0.48)	-0.27 (0.49)	-0.44 (0.49)
Bus. Assoc.	0.66* (0.31)	0.64* (0.30)	0.62* (0.30)	0.35 (0.27)	0.33 (0.26)	0.31 (0.26)	0.37 (0.28)	0.33 (0.28)	0.32 (0.28)	0.34 (0.28)
Rights Violated	0.34 (0.33)	0.34 (0.32)	0.26 (0.32)	0.59† (0.34)	0.50 (0.33)	0.66* (0.33)	0.38 (0.31)	0.38 (0.31)	0.47 (0.31)	0.39 (0.31)
Litigated	0.15 (0.34)	0.19 (0.33)	0.14 (0.34)	-0.07 (0.34)	-0.05 (0.34)	0.02 (0.34)	-0.25 (0.33)	-0.18 (0.32)	-0.27 (0.33)	-0.17 (0.33)
Legal Ed.	0.35 (0.43)	0.28 (0.43)	0.32 (0.42)	0.33 (0.39)	0.32 (0.37)	0.26 (0.39)	0.86* (0.40)	0.73† (0.41)	0.80* (0.39)	0.75† (0.41)
Age	0.01 (0.02)	0.01 (0.01)	0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	-0.01 (0.01)	0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)	0.00 (0.01)
Male	0.45 (0.29)	0.39 (0.29)	0.55† (0.29)	0.07 (0.28)	0.18 (0.27)	0.08 (0.28)	0.35 (0.26)	0.25 (0.26)	0.42 (0.26)	0.28 (0.28)
Constant	1.83 (1.23)	1.47 (1.22)	1.29 (1.20)	3.62** (1.23)	3.15** (1.17)	4.02** (1.26)	3.29** (1.25)	2.59* (1.13)	2.69* (1.19)	2.86* (1.22)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301	301	301	301	301
R-sq.	0.22	0.24	0.24	0.23	0.25	0.32	0.24	0.29	0.24	0.31
Adj. R-sq.	0.12	0.14	0.14	0.13	0.15	0.21	0.14	0.19	0.14	0.20

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.12: Firm Age and Violence

Property Dispute Scenario

	Criminal Racket		Criminal Racket		Private Sec. Agency		Private Sec. Agency		Private Sec. Agency		Internal Security		Internal Security	
Firm Age	-0.01 (0.08)		0.06 (0.08)	0.05 (0.09)			0.11 (0.09)	0.02 (0.12)						0.04 (0.12)
Tax Violator		0.83** (0.25)		0.47 (0.29)			0.45 (0.29)		0.12 (0.35)					0.07 (0.35)
Others Unlawful			0.61** (0.21)		0.30 (0.22)		0.25 (0.22)		0.32 (0.27)					0.37 (0.28)
Privatized*Consolidated (marginal effects)			0.13 (0.26)				-0.01 (0.29)							-0.88 (0.62)
Privatized			-0.42 (0.36)				-0.94* (0.38)							0.51 (0.60)
Consolidated			0.22 (0.27)				-0.12 (0.33)							-0.18 (0.38)
Privatized*Consolidated			-0.10 (0.36)				0.11 (0.41)							-0.77 (0.71)
Foreign Owned	0.64† (0.36)	0.58† (0.34)	0.52 (0.37)	0.38 (0.41)	0.35 (0.41)	0.33 (0.41)	0.42 (0.40)	0.24 (0.43)	0.23 (0.43)	0.18 (0.44)	0.27 (0.44)	0.20 (0.44)	0.20 (0.44)	0.20 (0.44)
Gov. Owned	0.06 (0.32)	-0.05 (0.31)	0.05 (0.32)	-0.11 (0.35)	-0.18 (0.35)	-0.12 (0.35)	0.00 (0.35)	-0.02 (0.52)	-0.04 (0.52)	-0.03 (0.52)	-0.24 (0.52)	-0.27 (0.51)	-0.27 (0.51)	-0.27 (0.51)
Bus. Assoc.	0.08 (0.23)	0.07 (0.23)	0.06 (0.23)	0.03 (0.24)	0.05 (0.23)	0.05 (0.23)	0.10 (0.23)	0.05 (0.24)	0.63* (0.31)	0.64* (0.30)	0.62* (0.30)	0.60† (0.31)	0.60† (0.31)	0.60† (0.31)
Rights Violated	0.22 (0.22)	0.21 (0.21)	0.14 (0.22)	0.21 (0.22)	0.19 (0.27)	0.17 (0.26)	0.24 (0.27)	0.22 (0.27)	0.36 (0.31)	0.36 (0.31)	0.31 (0.31)	0.40 (0.32)	0.37 (0.32)	0.37 (0.32)
Litigated	-0.43† (0.22)	-0.37† (0.22)	-0.43† (0.22)	-0.61* (0.25)	-0.57* (0.25)	-0.60* (0.25)	-0.46† (0.25)	-0.44† (0.25)	-0.02 (0.36)	-0.01 (0.35)	-0.01 (0.35)	-0.07 (0.36)	-0.07 (0.36)	-0.07 (0.36)
Legal Ed.	0.78* (0.32)	0.72* (0.31)	0.77* (0.33)	0.27 (0.29)	0.26 (0.29)	0.29 (0.29)	0.26 (0.29)	0.26 (0.29)	0.42 (0.39)	0.42 (0.39)	0.43 (0.38)	0.39 (0.38)	0.39 (0.38)	0.39 (0.38)
Age	-0.04*** (0.01)	-0.04*** (0.01)	-0.04*** (0.01)	-0.02* (0.01)	-0.02* (0.01)	-0.02* (0.01)	-0.02 (0.01)	-0.02† (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Male	-0.24 (0.20)	-0.32 (0.20)	-0.15 (0.20)	0.26 (0.23)	0.21 (0.23)	0.30 (0.23)	0.26 (0.23)	0.26 (0.23)	-0.11 (0.27)	-0.12 (0.28)	-0.06 (0.28)	-0.10 (0.28)	-0.10 (0.28)	-0.10 (0.28)
Constant	4.28*** (0.85)	3.99*** (0.82)	3.89*** (0.81)	3.42*** (0.80)	4.16*** (1.00)	4.13*** (1.01)	4.25*** (0.98)	3.77*** (1.05)	4.40*** (1.09)	4.42*** (1.08)	4.26*** (1.09)	4.62*** (1.15)	4.32*** (1.19)	4.32*** (1.19)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301	301	301	301	301	301	301	301	301
R-sq.	0.28	0.33	0.31	0.26	0.27	0.26	0.28	0.30	0.28	0.29	0.29	0.29	0.30	0.30
Adj. R-sq.	0.19	0.24	0.22	0.16	0.18	0.17	0.18	0.19	0.19	0.19	0.19	0.19	0.19	0.19

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.13: Firm Age and Legal Strategies (Lawyers and Courts)

	Debt Dispute Scenario			
	Lawyers	Lawyers	Lawyers	Courts
Firm Age	0.07 (0.08)	-0.06 (0.21)	0.07 (0.10)	0.13 (0.10)
Tax Violator			-0.62** (0.23)	-0.52* (0.24)
Others Unlawful		-0.19 (0.17)		-0.32† (0.19)
Privatized*Consolidated (marginal effects)		0.25 (0.36)	0.27 (0.37)	0.08 (0.32)
Privatized		-0.24 (0.34)	-0.28 (0.33)	-0.30 (0.34)
Consolidated		-0.09 (0.24)	-0.09 (0.24)	-0.46† (0.26)
Privatized*Consolidated		0.34 (0.41)	0.35 (0.42)	0.54 (0.41)
Foreign Owned	0.01 (0.24)	0.05 (0.24)	0.04 (0.25)	0.30 (0.28)
Gov. Owned	-0.04 (0.32)	-0.05 (0.31)	0.01 (0.34)	0.13 (0.36)
Bus. Assoc.	-0.22 (0.16)	-0.19 (0.16)	-0.20 (0.17)	0.03 (0.19)
Rights Violated	-0.02 (0.19)	-0.03 (0.19)	-0.05 (0.19)	0.33 (0.23)
Litigated	0.13 (0.19)	0.14 (0.19)	0.15 (0.19)	-0.14 (0.24)
Legal Ed.	0.03 (0.25)	0.06 (0.24)	0.06 (0.25)	0.38 (0.25)
Age	-0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.01 (0.01)
Male	0.04 (0.18)	0.05 (0.18)	0.06 (0.18)	0.36† (0.20)
Constant	5.72*** (0.80)	5.90*** (0.75)	5.90*** (0.79)	4.44*** (0.93)
City dummies	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes
Observations	301	301	301	301
R-sq.	0.19	0.18	0.19	0.32
Adj. R-sq.	0.08	0.08	0.07	0.23

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.14: Firm Age and Legal Strategies (Law Enforcement and Gov. Officials)

	Debt Dispute Scenario					
	Law Enf.	Law Enf.	Law Enf.	Gov. Officials	Gov. Officials	Gov. Officials
Firm Age	0.11 (0.11)		0.12 (0.11)	0.14 (0.11)		0.14 (0.11)
Tax Violator		0.03 (0.33)			-0.03 (0.33)	
Others Unlawful			0.08 (0.27)			-0.60* (0.27)
Privatized*Consolidated (marginal effects)			-0.31 (0.54)	-0.36 (0.55)		-0.34 (0.53)
Privatized			0.05 (0.57)	0.01 (0.58)		0.05 (0.56)
Consolidated			-0.24 (0.41)	-0.25 (0.42)		-0.11 (0.42)
Privatized*Consolidated			-0.07 (0.68)	-0.11 (0.69)		-0.22 (0.64)
Foreign Owned	-0.33 (0.42)	-0.33 (0.43)	-0.34 (0.43)	-0.33 (0.44)	-0.12 (0.42)	-0.09 (0.42)
Gov. Owned	0.13 (0.45)	0.12 (0.46)	0.12 (0.46)	0.04 (0.47)	0.48 (0.45)	0.48 (0.44)
Bus. Assoc.	0.16 (0.29)	0.20 (0.28)	0.20 (0.28)	0.15 (0.29)	-0.08 (0.29)	-0.02 (0.29)
Rights Violated	0.61† (0.32)	0.59† (0.32)	0.58† (0.32)	0.61† (0.32)	0.04 (0.33)	0.08 (0.33)
Litigated	-0.20 (0.33)	-0.17 (0.33)	-0.20 (0.33)	-0.20 (0.35)	-0.17 (0.34)	-0.17 (0.34)
Legal Ed.	0.68 (0.45)	0.71 (0.44)	0.72 (0.44)	0.69 (0.45)	0.17 (0.40)	0.11 (0.40)
Age	-0.03† (0.01)	-0.02† (0.01)	-0.02† (0.01)	-0.03† (0.01)	-0.01 (0.01)	-0.01 (0.01)
Male	-0.25 (0.28)	-0.25 (0.29)	-0.24 (0.28)	-0.24 (0.29)	-0.12 (0.28)	-0.13 (0.29)
Constant	6.67*** (1.15)	6.88*** (1.14)	6.85*** (1.16)	6.77*** (1.29)	6.08*** (1.18)	6.16*** (1.28)
City dummies	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301
R-sq.	0.27	0.27	0.27	0.28	0.24	0.26
Adj. R-sq.	0.18	0.17	0.17	0.17	0.14	0.15

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.15: Firm Age and Corruption

		Debt Dispute Scenario										
		Courts	Courts	Courts	Law Enf.	Law Enf.	Law Enf.	Law Enf.	Gov. Off.	Gov. Off.	Gov. Off.	
		(informal)	(informal)	(informal)	(informal)	(informal)	(informal)	(informal)	(informal)	(informal)	(informal)	
Firm Age	-0.09 (0.12)			-0.03 (0.13)	-0.08 (0.12)			-0.03 (0.12)	-0.11 (0.11)			-0.04 (0.12)
Tax Violator	0.83* (0.33)			0.73* (0.34)		1.11** (0.37)		1.09** (0.37)		1.32*** (0.34)		1.31*** (0.34)
Others Unlawful		0.66* (0.28)		0.61* (0.29)	0.61* (0.26)			0.51† (0.27)		0.28 (0.25)		0.13 (0.26)
Privatized*Consolidated (marginal effects)			-0.99† (0.56)	-1.07† (0.56)				-1.17* (0.53)				-1.19* (0.51)
Privatized			0.18 (0.58)	0.16 (0.58)				0.34 (0.59)				0.45 (0.57)
Consolidated			-0.21 (0.39)	-0.35 (0.39)				-0.65 (0.42)				-0.16 (0.38)
Privatized*Consolidated			-0.78 (0.69)	-0.73 (0.69)				-0.52 (0.66)				-1.03† (0.61)
Foreign Owned	0.46 (0.44)	0.40 (0.43)	0.33 (0.44)	0.34 (0.43)	-0.06 (0.43)	-0.14 (0.43)	-0.18 (0.43)	0.01 (0.45)	0.08 (0.40)	-0.02 (0.40)	0.03 (0.41)	0.12 (0.41)
Gov. Owned	0.01 (0.46)	-0.09 (0.47)	0.00 (0.47)	-0.31 (0.49)	-0.22 (0.48)	-0.36 (0.50)	-0.23 (0.48)	-0.52 (0.48)	-0.03 (0.45)	-0.19 (0.46)	-0.03 (0.45)	-0.27 (0.47)
Bus. Assoc.	0.52 (0.33)	0.48 (0.32)	0.46 (0.31)	0.47 (0.32)	0.24 (0.29)	0.21 (0.28)	0.19 (0.28)	0.18 (0.27)	0.13 (0.28)	0.09 (0.27)	0.07 (0.27)	0.08 (0.26)
Rights Violated	0.34 (0.33)	0.35 (0.32)	0.27 (0.33)	0.42 (0.33)	-0.02 (0.35)	-0.03 (0.33)	-0.09 (0.35)	0.04 (0.33)	0.03 (0.32)	0.03 (0.30)	0.01 (0.32)	0.12 (0.31)
Litigated	0.04 (0.34)	0.09 (0.34)	0.02 (0.34)	0.03 (0.35)	0.03 (0.36)	0.10 (0.35)	0.10 (0.36)	-0.07 (0.36)	0.05 (0.33)	0.13 (0.31)	0.03 (0.33)	0.10 (0.31)
Legal Ed.	0.27 (0.46)	0.17 (0.46)	0.22 (0.44)	0.20 (0.46)	0.73† (0.40)	0.62 (0.40)	0.69† (0.38)	0.75† (0.38)	0.71† (0.39)	0.58 (0.38)	0.67† (0.38)	0.59 (0.38)
Age	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.02 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Male	0.48† (0.29)	0.41 (0.29)	0.59* (0.29)	0.45 (0.30)	-0.20 (0.28)	-0.29 (0.27)	-0.10 (0.28)	-0.20 (0.28)	0.06 (0.27)	-0.06 (0.27)	0.10 (0.27)	0.01 (0.27)
Constant	1.48 (1.26)	1.02 (1.25)	0.89 (1.24)	1.43 (1.27)	4.39*** (1.20)	3.84*** (1.15)	3.85*** (1.17)	4.80*** (1.26)	3.98*** (1.22)	3.30*** (1.17)	3.57*** (1.18)	3.63*** (1.26)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301	301	301	301	301	301	301
R-sq.	0.22	0.25	0.24	0.23	0.23	0.28	0.24	0.25	0.32	0.33	0.26	0.28
Adj. R-sq.	0.12	0.15	0.14	0.12	0.13	0.18	0.14	0.15	0.17	0.24	0.17	0.18

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

Table 6.16: Firm Age and Violence

Debt Dispute Scenario

	Criminal Racket		Criminal Racket		Private Sec. Agency		Private Sec. Agency		Internal Security		Internal Security	
	Racket	Racket	Racket	Racket	Sec. Agency	Sec. Agency	Sec. Agency	Sec. Agency	Internal Security	Internal Security	Internal Security	Internal Security
Firm Age	0.04 (0.08)		0.11 (0.08)	-0.03 (0.08)			0.03 (0.09)	0.11 (0.12)				0.12 (0.12)
Tax Violator	0.68** (0.21)		0.63** (0.21)		0.57* (0.27)		0.53† (0.28)		0.21 (0.35)			0.19 (0.35)
Others Unlawful		0.47** (0.18)				0.45* (0.20)				0.37 (0.27)		0.38 (0.28)
Privatized*Consolidated (marginal effects)			-0.02 (0.19)	-0.10 (0.20)			-0.14 (0.27)					-0.50 (0.62)
Privatized			-0.56† (0.30)	-0.64* (0.32)			-0.79* (0.37)					0.32 (0.56)
Consolidated			0.02 (0.26)	-0.09 (0.26)			-0.35 (0.32)					-0.21 (0.34)
Privatized*Consolidated			-0.04 (0.30)	-0.00 (0.31)			0.21 (0.39)					-0.30 (0.67)
Foreign Owned	0.41 (0.29)	0.36 (0.28)	0.43 (0.28)	0.32 (0.28)	0.23 (0.33)	0.19 (0.34)	0.32 (0.33)	0.22 (0.42)	0.23 (0.42)	0.22 (0.42)	0.17 (0.42)	0.17 (0.42)
Gov. Owned	0.01 (0.24)	-0.08 (0.25)	0.10 (0.24)	0.01 (0.25)	-0.04 (0.27)	0.02 (0.27)	0.09 (0.27)	-0.00 (0.27)	0.38 (0.52)	0.34 (0.52)	0.36 (0.51)	0.18 (0.51)
Bus. Assoc.	-0.02 (0.19)	-0.00 (0.19)	0.03 (0.19)	-0.02 (0.19)	0.23 (0.22)	0.21 (0.22)	0.26 (0.22)	0.24 (0.22)	0.60† (0.31)	0.64* (0.31)	0.63* (0.31)	0.57† (0.32)
Rights Violated	0.28 (0.21)	0.26 (0.20)	0.30 (0.21)	0.27 (0.21)	0.39 (0.26)	0.34 (0.26)	0.43† (0.26)	0.38 (0.26)	0.27 (0.30)	0.25 (0.30)	0.21 (0.31)	0.25 (0.32)
Litigated	-0.23 (0.20)	-0.17 (0.19)	-0.11 (0.20)	-0.08 (0.20)	-0.47* (0.23)	-0.43† (0.23)	-0.37 (0.24)	-0.33 (0.23)	-0.28 (0.35)	-0.24 (0.34)	-0.25 (0.36)	-0.31 (0.36)
Legal Ed.	0.63* (0.29)	0.60* (0.27)	0.61* (0.29)	0.53† (0.27)	0.38 (0.28)	0.42 (0.28)	0.43 (0.27)	0.39 (0.26)	1.02** (0.37)	1.05** (0.37)	1.06** (0.37)	1.02** (0.37)
Age	-0.02** (0.01)	-0.02* (0.01)	-0.02* (0.01)	-0.02* (0.01)	-0.02† (0.01)	-0.02† (0.01)	-0.02 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Male	-0.21 (0.18)	-0.28 (0.18)	-0.14 (0.18)	-0.22 (0.18)	-0.22 (0.21)	-0.15 (0.20)	-0.20 (0.21)	-0.18 (0.21)	-0.41 (0.27)	-0.44 (0.28)	-0.36 (0.28)	-0.38 (0.29)
Constant	4.06*** (0.82)	3.93*** (0.78)	4.01*** (0.84)	3.43*** (0.82)	4.84*** (0.92)	4.75*** (0.93)	5.18*** (0.93)	4.79*** (1.02)	4.32*** (1.12)	4.49*** (1.12)	4.32*** (1.12)	4.77*** (1.18)
City dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm size dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Firm finances dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301	301	301	301	301	301	301
R-sq.	0.23	0.27	0.25	0.31	0.36	0.35	0.36	0.39	0.28	0.29	0.29	0.30
Adj. R-sq.	0.13	0.17	0.15	0.20	0.28	0.27	0.26	0.29	0.19	0.19	0.19	0.19

† significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Robust standard errors in parentheses.

7 Linking the 1998 Financial Crisis & Explanatory Variables

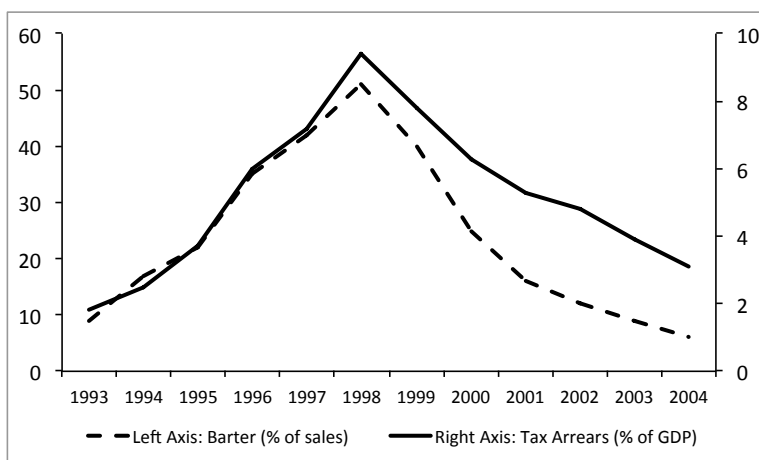
The contributions of a demand-side framework would be lessened if key explanatory variables in the model primarily reflect changes in state capacity or policy. To address potential concerns about endogeneity, the article emphasizes that key explanatory variables in the Russian case – exit from the unofficial economy and consolidation of ownership – resulted to a significant extent from the exogenous shock of the 1998 financial crisis (see the sections “Demand-Side Barriers” and “Effectiveness of Illegal Strategies”). In other words, it is not the case that the demand-side factors in the model simply were “jumpstarted” by supply-side factors.

This appendix provides additional evidence linking the financial crisis to (1) firms’ exit from the unofficial economy and (2) consolidation of ownership in privatized firms.⁸

Exit from the Unofficial Economy

Two key indicators of the unofficial economy – barter and tax arrears – clearly show that 1998 was a turning point, as can be seen in Figure 7.1.⁹ Prior to the financial crisis, a large share of transactions among Russian firms and between firms and the Government had become demonetized. Due to a lack of liquidity and desire to avoid tax payments, firms instead turned to barter. Barter reached an astounding peak of more than 50 percent of inter-firm transactions just before the August 1998 and then declined rapidly thereafter. Tax arrears similarly peaked in 1998 at nearly 10 percent of GDP and then shrank dramatically.

Figure 7.1: Barter and Tax Arrears, 1993-2004



Note: Tax arrears data for 1993-1997 from (Treisman, 2003, 52); for 1998-2008 from Rosstat reports, *Financii Rossii* [Russian Finances], various years. Data on barter are from the Russian Economic Barometer, various years. Barter data refer to industrial enterprises only.

⁸I make no claim about the crisis’s direct impact on firm strategies. Rather, the crisis (and the post-crisis recovery) reduced demand-side barriers and the effectiveness of illegal strategies, which in turn influenced firms’ willingness to use legal institutions.

⁹As discussed in section “Explaining Demand for Law” (sub-section “A Demand-Side Approach”) of the article, nearly all firms in Russia are formally registered, but many firms conceal operations from the authorities. The unofficial economy consists largely of these hidden operations, rather than of fully unregistered firms.

That these shifts followed the 1998 crisis was not coincidental. Numerous analysts – both western and Russian – have linked firms’ emergence from the unofficial economy to the financial crisis. These analyses offer clear mechanisms accounting for the crisis’s effect on barter and tax arrears:

1. *Import substitution growth stimulated tax payments and reduced barter* The crisis forced a significant devaluation of the ruble, which in turn created an import-substitution effect. As a result, many Russian firms – particularly those in export-oriented sectors – became profitable for the first time since the collapse of the Soviet Union. Increased liquidity made tax payments and transactions in cash more feasible and desirable, particularly for firms which had been operating in the unofficial economy out of necessity rather than choice. Numerous analyses support this claim, as indicated by the sample of quotations below:

- “What happened after the August 1998 crisis? The jump in prices on the domestic market increased enterprises’ budgetary constraints, and even more importantly the dollar’s rise in value sharply lowered the profitability of imports. Consequently enterprises’ liquidity began to rise. Accordingly, **tax collection rose** and the **level of nonpayments to the budget fell**, which, in turn, further facilitated growth in the level of enterprises budgetary constraints. The rising volume of cash resources allowed enterprises to pay not only the most important deals needed for survival, but also less important deals” (Valitova and Tambovtsev, 2001, 9).
- “The **decline in barter** resulted from the ruble devaluation following the default on Russia’s debt that was announced on August 17, 1999. Foreign competitors of Russian industrialists found themselves in highly unprofitable conditions due to the relative revaluation of their currencies. And these quantitative changes were accompanied by the normalization of the economic situation in Russia, especially in the sphere of exchange operations” (Dyufi, 2005, 127).

2. *Post-crisis inflation made paying taxes and debts cheaper* A short burst of inflation in the aftermath of the crisis lowered the cost in real terms of paying taxes or fulfilling obligations to business partners. Additionally, because regulated energy prices were not allowed to rise with inflation, the price of energy dropped in real terms, further increasing firms’ liquidity. The quotations below describe this mechanism in greater detail:

- “The **decline in barter and payment in kind** were also helped by falls in domestic energy prices so that firms had a **greater ability to pay their bills and taxes**. . . . Particularly marked have been the **falls in wage and tax arrears**. . . . These two developments were not unrelated. The crash made paying taxes and wages in cash cheaper than before and the collapse of the GKO [short-term Government bonds] market meant that it was no longer possible or attractive to divert money that should have been earmarked for tax or wage payments into the Government securities market” (Robinson, 2009, 444).
- “1999 has witnessed somewhat of a **decline in the share of surrogates** [i.e., barter and tax offsets] in budgetary operations and the transactions of enterprises. What was the cause of this decline. . . ? First, during the high inflation that followed the exchange rate crisis of mid-1998, regulated energy prices declined sharply in real terms. . . . Lower energy prices have made settlements with Gazprom and RAO EES easier for many

industrial firms, and have perhaps increased the ability of natural monopolies to insist on cash payments from relatively liquid consumers. Indeed, the increase in the rouble value of cash export earnings following the depreciation of the rouble has boosted the liquidity of many export-oriented firms” (OECD, 2000, 108).

Many other sources attest to the impact of the 1998 financial crisis on firms’ declining barter and increasing tax payments, including Pinto et al. (2000, 2), Solntsev (2001, 57), and Jones Luong and Weinthal (2004, 147).

Consolidation of Ownership

Numerous analysts identify the 1998 crisis as a watershed moment in the evolution of ownership structures in post-Soviet firms. As Radygin and Arkhipov (2001, 16) explain:

Our data speak to substantial changes having occurred in the structure of shareholder capital of Russian enterprises compared to the findings of similar research by the authors and others between 1994 and 1999. The qualitative breaking point (*kachestvennyi perelomnyi moment*) appears to have been 1998, when after the financial crisis the process of redistribution and concentration of property significantly accelerated.

Dolgopyatova (2005, 5) similarly writes that “The economic growth that followed the financial 1998 crisis was characterized by stronger property redistribution and concentration. . . . Capital consolidation continued on the basis of fast private sector expansion in the economy.” The analyses of Radygin, Dolgopyatova, and others highlight three mechanisms linking the 1998 crisis to the process of ownership consolidation:

1. *Bankruptcies created opportunities for consolidation* The most direct effect of the crisis on ownership consolidation was that many firms and conglomerates went bankrupt, which allowed surviving enterprises to acquire their assets at a discount. Similarly, firms striving to avoid bankruptcy sold assets at fire-sale prices to better-positioned competitors in order to remain in business. The quotation below provides further details about this process:

- “The 1998 financial crisis significantly shifted the focus to the **redistribution of property**. Having fallen into a difficult economic situation, and frequently **on the verge of bankruptcy**, shareholders, including issuers, tried to minimize losses by sale or consolidation of non-liquid assets, which contributed further to the **concentration of shareholder capital**” (Androsov, 2010, 13).

2. *Increased value of industrial assets encouraged consolidation* The aforementioned devaluation of the rouble, which made industrial firms competitive and profitable for the first time since the Soviet collapse, spurred firms that survived the crisis to consider longer term investment opportunities. A focus on longer-term investment in turn further raised the value of industrial assets. The collapse of rent-seeking opportunities, discussed below, also contributed to the rise in industrial assets’ value. The increasing value of industrial assets set off ownership battles as firms sought to gain additional assets and consolidate control over assets already in their possession. The following quotations attest to these trends:

- “The incentives for a new **redistribution of property** increased significantly due to

the devaluation, which increased the efficiency of domestic enterprises and **raised the value of their assets**” (Mysyagin, 2009, 4).

- “The devaluation in August 1998 and the import-substitution process that followed it significantly **raised the value of Russian enterprises’ real assets**. Their owners began to recognize that in their hands was not merely operative control over financial flows, but a business capable of generating additional income in the future” (Yakovlev et al., 2004, 16).

3. *The collapse of subsidies and speculative opportunities stimulated consolidation* Prior to the crisis, many firms – particularly larger enterprises – thrived on various sources of rents: Government subsidies, currency speculation, and exorbitant returns on short-term Government bonds. The crisis forced the Government to significantly reduce subsidies, realigned market fundamentals in the currency markets, and led to the collapse of the short-term bond market. As the following quotations emphasize, surviving firms were forced to find new ways to prosper by becoming more competitive, which often required consolidation of ownership:

- “[The crisis] allowed a number of previously less significant players to gain prominence. In 1999-2000 second-tier companies took the place of the former oligarchs. **Lacking access to the [Government] budget trough (*kormushka*), these companies were forced to increasingly develop their businesses, restructure assets, and conquer new markets**” (Mysyagin, 2009, 4).
- “The reorganization of big business during 1999-2002 was connected to the fact that the financial-industrial groups, having to a significant extent **lost the opportunity to work with Government funds**, were forced out into the private capital market in search of sources of financing. This led to a new **redistribution of property** in exchange for financial resources” (Androsov, 2010, 13).

Exogeneity of Demand-Side Variables

In summary, overwhelming evidence supports the claim that the 1998 financial crisis had a direct impact on the article’s key explanatory variables – exit from the unofficial economy and consolidation of ownership. This evidence indicates that shifts in these demand-side explanatory variables had a significant exogenous component and did not merely reflect shifts in state capacity or other supply-side variables.

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