

# Online Appendix

Taxes, Banking, and Legal Development in Russia:  
Lessons about Institutional Complementarities and the Rule of Law

Jordan Gans-Morse

## Contents

<b>1</b>	<b>Data Collection</b>	<b>2</b>
1.1	Interviews . . . . .	2
1.2	Survey . . . . .	6
1.3	Collecting Data on Sensitive Topics . . . . .	7
<b>2</b>	<b>Regression Analyses</b>	<b>8</b>
2.1	Multiple Imputation . . . . .	8
2.2	Descriptive Statistics . . . . .	9
2.3	Full Regression Tables . . . . .	10
	<b>Bibliography</b>	<b>16</b>

# 1 Data Collection

## 1.1 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

## 1.2 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.

### 1.3 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).

## 2 Regression Analyses

### 2.1 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 tables in the main article and in the tables below 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.

## 2.2 Descriptive Statistics

### Descriptive Statistics – Independent & Control Variables

Variables	Description	N	Mean	SD	Min	Max
Tax Payer	1 if firm reports more than %90 of sales for tax purposes, 0 otherwise	167	0.68	0.47	0	1
Low Cash	1 if firms conducts less than %10 percent of transactions in cash, 0 otherwise	209	0.50	0.50	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	43.5	11.0	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	–	–	–	–

## 2.3 Full Regression Tables

### Full Regression Tables: Use of Private Coercion (property dispute)

#### OLS Regressions

	Criminal Racket	Criminal Racket	Criminal Racket	Private Sec. Agency	Private Sec. Agency	Private Sec. Agency	Internal Security	Internal Security	Internal Security
Tax Complier	-0.84** (0.26)		-0.82** (0.25)	-0.49† (0.30)		-0.46 (0.31)	-0.13 (0.34)		-0.10 (0.36)
Low Cash		-0.30 (0.24)	-0.15 (0.24)		-0.33 (0.26)	-0.25 (0.28)		-0.17 (0.32)	-0.15 (0.34)
Firm Age	0.03 (0.08)	-0.01 (0.08)	0.03 (0.08)	0.07 (0.09)	0.05 (0.09)	0.07 (0.09)	0.03 (0.12)	0.02 (0.12)	0.03 (0.12)
Foreign Owned	0.58† (0.34)	0.69† (0.36)	0.60† (0.35)	0.35 (0.42)	0.45 (0.42)	0.40 (0.43)	0.23 (0.43)	0.27 (0.44)	0.26 (0.45)
Gov. Owned	-0.05 (0.31)	0.08 (0.33)	-0.03 (0.32)	-0.18 (0.35)	-0.09 (0.34)	-0.15 (0.35)	-0.04 (0.53)	-0.01 (0.52)	-0.03 (0.52)
Bus. Assoc.	0.06 (0.23)	0.08 (0.23)	0.07 (0.23)	0.02 (0.23)	0.04 (0.24)	0.03 (0.23)	0.63* (0.31)	0.64* (0.31)	0.63* (0.31)
Rights Violated	0.21 (0.22)	0.22 (0.22)	0.21 (0.22)	0.21 (0.27)	0.21 (0.27)	0.21 (0.27)	0.36 (0.31)	0.36 (0.31)	0.36 (0.31)
Litigated	-0.37† (0.22)	-0.39† (0.22)	-0.36 (0.22)	-0.58* (0.25)	-0.58* (0.25)	-0.55* (0.25)	-0.01 (0.36)	0.00 (0.36)	0.01 (0.36)
Legal Ed.	0.71* (0.31)	0.73* (0.32)	0.68* (0.31)	0.23 (0.30)	0.22 (0.30)	0.19 (0.30)	0.41 (0.39)	0.40 (0.39)	0.39 (0.39)
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)	-0.01 (0.01)	-0.00 (0.01)	-0.00 (0.01)
Male	-0.32 (0.20)	-0.30 (0.20)	-0.35† (0.20)	0.21 (0.23)	0.20 (0.24)	0.17 (0.23)	-0.12 (0.28)	-0.14 (0.27)	-0.15 (0.27)
Constant	4.77*** (0.80)	4.48*** (0.86)	4.86*** (0.81)	4.49*** (1.00)	4.42*** (1.02)	4.63*** (1.00)	4.48*** (1.11)	4.51*** (1.09)	4.56*** (1.09)
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 finance dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301	301	301	301
R-sq.	0.33	0.29	0.34	0.28	0.27	0.28	0.29	0.28	0.29

Robust standard errors in parentheses. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

## Full Regression Tables: Use of Illicit Connections (property dispute)

### OLS Regressions

	Courts (informal)	Courts (informal)	Courts (informal)	Law Enf. (unofficial)	Law Enf. (unofficial)	Law Enf. (unofficial)	Gov. Officials (unofficial)	Gov. Officials (unofficial)	Gov. Officials (unofficial)
Tax Complier	-0.70*		-0.60 <sup>†</sup>	-1.04**		-0.95**	-1.13**		-1.07**
	(0.34)		(0.33)	(0.36)		(0.36)	(0.35)		(0.36)
Low Cash		-0.78*	-0.67 <sup>†</sup>		-0.80*	-0.63 <sup>†</sup>		-0.60 <sup>†</sup>	-0.40
		(0.34)	(0.35)		(0.33)	(0.33)		(0.35)	(0.36)
Firm Age	-0.03	-0.06	-0.03	0.03	-0.02	0.02	-0.08	-0.13	-0.08
	(0.13)	(0.13)	(0.14)	(0.12)	(0.11)	(0.12)	(0.12)	(0.12)	(0.13)
Foreign Owned	0.42	0.62	0.55	0.14	0.37	0.27	-0.01	0.19	0.08
	(0.42)	(0.47)	(0.45)	(0.43)	(0.44)	(0.45)	(0.43)	(0.43)	(0.45)
Gov. Owned	0.11	0.25	0.17	-0.48	-0.29	-0.42	-0.24	-0.05	-0.20
	(0.43)	(0.42)	(0.42)	(0.46)	(0.44)	(0.45)	(0.48)	(0.48)	(0.48)
Bus. Assoc.	0.65*	0.67*	0.66*	0.33	0.37	0.35	0.36	0.38	0.37
	(0.31)	(0.30)	(0.30)	(0.27)	(0.27)	(0.27)	(0.28)	(0.28)	(0.28)
Rights Violated	0.33	0.33	0.33	0.58 <sup>†</sup>	0.58 <sup>†</sup>	0.57 <sup>†</sup>	0.37	0.37	0.36
	(0.32)	(0.33)	(0.32)	(0.33)	(0.33)	(0.32)	(0.31)	(0.31)	(0.31)
Litigated	0.20	0.23	0.26	0.00	0.01	0.06	-0.16	-0.18	-0.13
	(0.34)	(0.33)	(0.33)	(0.33)	(0.33)	(0.32)	(0.32)	(0.33)	(0.32)
Legal Ed.	0.29	0.24	0.21	0.24	0.21	0.16	0.76 <sup>†</sup>	0.77 <sup>†</sup>	0.71 <sup>†</sup>
	(0.44)	(0.43)	(0.44)	(0.40)	(0.39)	(0.40)	(0.42)	(0.40)	(0.42)
Age	0.01	0.01	0.01	-0.01	-0.00	-0.01	0.00	0.00	0.00
	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Male	0.39	0.30	0.27	-0.02	-0.08	-0.13	0.25	0.24	0.18
	(0.29)	(0.29)	(0.29)	(0.27)	(0.29)	(0.28)	(0.26)	(0.27)	(0.27)
Constant	2.23 <sup>†</sup>	2.35 <sup>†</sup>	2.62*	4.22***	4.16**	4.58***	3.89**	3.63**	4.13***
	(1.22)	(1.21)	(1.20)	(1.18)	(1.25)	(1.20)	(1.18)	(1.24)	(1.20)
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 finance dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301	301	301	301
R-sq.	0.24	0.24	0.25	0.27	0.25	0.28	0.29	0.25	0.29

Robust standard errors in parentheses. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, <sup>†</sup> p<0.10

## Full Regression Tables: Use of Formal Legal Institutions (property dispute)

### OLS Regressions

	Lawyers	Lawyers	Lawyers	Courts	Courts	Courts	Law Enf.	Law Enf.	Law Enf.	Gov. Officials	Gov. Officials	Gov. Officials
Tax Complier	0.45 <sup>†</sup> (0.24)		0.46 <sup>†</sup> (0.24)	0.61* (0.28)		0.63* (0.28)	0.35 (0.33)		0.36 (0.34)	0.32 (0.34)		0.31 (0.35)
Low Cash		0.03 (0.23)	-0.05 (0.22)		0.01 (0.24)	-0.09 (0.24)		-0.00 (0.32)	-0.06 (0.33)		0.10 (0.36)	0.05 (0.37)
Firm Age	0.09 (0.08)	0.11 (0.08)	0.09 (0.08)	0.24* (0.10)	0.26* (0.10)	0.24* (0.10)	0.08 (0.10)	0.09 (0.10)	0.08 (0.10)	0.12 (0.11)	0.13 (0.10)	0.12 (0.11)
Foreign Owned	0.12 (0.28)	0.09 (0.28)	0.13 (0.28)	0.70* (0.31)	0.66* (0.31)	0.72* (0.32)	-0.39 (0.39)	-0.41 (0.39)	-0.38 (0.40)	-0.71 (0.44)	-0.75 <sup>†</sup> (0.44)	-0.73 (0.46)
Gov. Owned	-0.09 (0.33)	-0.15 (0.32)	-0.09 (0.33)	0.26 (0.37)	0.19 (0.35)	0.27 (0.37)	-0.06 (0.40)	-0.10 (0.39)	-0.05 (0.40)	0.22 (0.42)	0.17 (0.41)	0.20 (0.42)
Bus. Assoc.	0.11 (0.21)	0.11 (0.21)	0.11 (0.21)	-0.04 (0.22)	-0.05 (0.23)	-0.04 (0.23)	0.66* (0.26)	0.66* (0.26)	0.66* (0.26)	0.86** (0.28)	0.85** (0.27)	0.85** (0.28)
Rights Violated	-0.05 (0.23)	-0.05 (0.23)	-0.05 (0.23)	0.26 (0.28)	0.26 (0.28)	0.26 (0.28)	0.18 (0.29)	0.19 (0.29)	0.18 (0.29)	0.22 (0.31)	0.22 (0.31)	0.22 (0.31)
Litigated	0.37 (0.28)	0.39 (0.29)	0.37 (0.29)	0.25 (0.30)	0.29 (0.30)	0.26 (0.30)	0.50 (0.31)	0.52 <sup>†</sup> (0.31)	0.51 (0.31)	-0.30 (0.33)	-0.30 (0.34)	-0.31 (0.34)
Legal Ed.	-0.09 (0.26)	-0.13 (0.25)	-0.10 (0.26)	0.26 (0.30)	0.21 (0.30)	0.25 (0.31)	0.21 (0.39)	0.18 (0.39)	0.20 (0.39)	0.42 (0.38)	0.42 (0.38)	0.43 (0.38)
Age	-0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)	0.03* (0.01)	0.03* (0.01)	0.03* (0.01)	-0.03 <sup>†</sup> (0.01)	-0.02 <sup>†</sup> (0.01)				
Male	0.35 <sup>†</sup> (0.21)	0.32 (0.21)	0.35 <sup>†</sup> (0.20)	0.30 (0.23)	0.25 (0.23)	0.28 (0.23)	0.12 (0.25)	0.09 (0.26)	0.11 (0.25)	0.11 (0.26)	0.10 (0.26)	0.12 (0.26)
Constant	5.28*** (0.94)	5.52*** (0.92)	5.31*** (0.94)	2.48* (1.00)	2.83** (0.99)	2.54* (1.01)	7.34*** (1.04)	7.54*** (1.04)	7.36*** (1.05)	6.24*** (1.16)	6.35*** (1.17)	6.20*** (1.19)
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 finance 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	0.21	0.23	0.29	0.26	0.29	0.23	0.22	0.23	0.25	0.25	0.25

Robust standard errors in parentheses. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

## Full Regression Tables: Use of Private Coercion (nonpayment dispute)

### OLS Regressions

	Criminal Racket	Criminal Racket	Criminal Racket	Private Sec. Agency	Private Sec. Agency	Private Sec. Agency	Internal Security	Internal Security	Internal Security
Tax Complier	-0.70** (0.21)		-0.64** (0.22)	-0.57* (0.28)		-0.53† (0.29)	-0.24 (0.34)		-0.21 (0.35)
Low Cash		-0.49* (0.22)	-0.37† (0.21)		-0.38 (0.26)	-0.28 (0.28)		-0.22 (0.33)	-0.18 (0.34)
Firm Age	0.07 (0.08)	0.04 (0.08)	0.07 (0.08)	-0.01 (0.08)	-0.03 (0.08)	-0.01 (0.08)	0.12 (0.12)	0.11 (0.12)	0.11 (0.12)
Foreign Owned	0.36 (0.29)	0.50† (0.29)	0.43 (0.29)	0.23 (0.33)	0.35 (0.34)	0.29 (0.34)	0.21 (0.42)	0.27 (0.43)	0.25 (0.44)
Gov. Owned	-0.07 (0.25)	0.05 (0.24)	-0.04 (0.25)	-0.04 (0.27)	0.06 (0.26)	-0.02 (0.27)	0.34 (0.52)	0.39 (0.52)	0.36 (0.52)
Bus. Assoc.	-0.03 (0.19)	-0.01 (0.19)	-0.02 (0.19)	0.23 (0.22)	0.25 (0.22)	0.24 (0.22)	0.60† (0.32)	0.61† (0.32)	0.60† (0.32)
Rights Violated	0.28 (0.20)	0.27 (0.21)	0.27 (0.20)	0.39 (0.26)	0.39 (0.26)	0.39 (0.26)	0.27 (0.30)	0.27 (0.30)	0.27 (0.30)
Litigated	-0.19 (0.20)	-0.18 (0.20)	-0.15 (0.19)	-0.43† (0.23)	-0.42† (0.23)	-0.40† (0.23)	-0.26 (0.35)	-0.25 (0.36)	-0.24 (0.36)
Legal Ed.	0.57* (0.27)	0.56† (0.29)	0.52† (0.27)	0.38 (0.27)	0.37 (0.29)	0.34 (0.28)	1.00** (0.37)	0.99** (0.37)	0.98** (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)	-0.01 (0.01)
Male	-0.28 (0.18)	-0.30† (0.18)	-0.34† (0.18)	-0.27 (0.20)	-0.28 (0.21)	-0.31 (0.21)	-0.44 (0.27)	-0.45† (0.27)	-0.47† (0.27)
Constant	4.46*** (0.81)	4.38*** (0.85)	4.67*** (0.84)	5.42*** (0.92)	5.33*** (0.94)	5.57*** (0.92)	4.47*** (1.13)	4.46*** (1.16)	4.58*** (1.16)
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 finance dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301	301	301	301
R-sq.	0.27	0.25	0.29	0.36	0.35	0.37	0.29	0.29	0.29

Robust standard errors in parentheses. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

## Full Regression Tables: Use of Illicit Connections (nonpayment dispute)

### OLS Regressions

	Courts (informal)	Courts (informal)	Courts (informal)	Law Enf. (unofficial)	Law Enf. (unofficial)	Law Enf. (unofficial)	Gov. Officials (unofficial)	Gov. Officials (unofficial)	Gov. Officials (unofficial)
Tax Complier	-0.82* (0.33)		-0.70* (0.32)	-1.11** (0.37)		-1.00** (0.37)	-1.31*** (0.34)		-1.21*** (0.33)
Low Cash		-0.93** (0.34)	-0.80* (0.34)		-0.88** (0.33)	-0.70* (0.34)		-0.86* (0.34)	-0.64† (0.35)
Firm Age	-0.06 (0.13)	-0.09 (0.12)	-0.06 (0.13)	-0.04 (0.12)	-0.08 (0.12)	-0.04 (0.12)	-0.06 (0.11)	-0.12 (0.11)	-0.06 (0.12)
Foreign Owned	0.40 (0.43)	0.64 (0.47)	0.56 (0.46)	-0.14 (0.43)	0.11 (0.45)	0.00 (0.45)	-0.02 (0.40)	0.25 (0.41)	0.11 (0.40)
Gov. Owned	-0.09 (0.46)	0.07 (0.44)	-0.02 (0.44)	-0.36 (0.50)	-0.16 (0.48)	-0.30 (0.49)	-0.20 (0.46)	0.03 (0.46)	-0.14 (0.46)
Bus. Assoc.	0.50 (0.32)	0.53† (0.32)	0.52 (0.32)	0.22 (0.28)	0.25 (0.28)	0.24 (0.28)	0.11 (0.27)	0.14 (0.27)	0.12 (0.27)
Rights Violated	0.34 (0.33)	0.33 (0.33)	0.33 (0.33)	-0.03 (0.33)	-0.03 (0.35)	-0.04 (0.34)	0.02 (0.31)	0.02 (0.32)	0.01 (0.31)
Litigated	0.10 (0.34)	0.14 (0.33)	0.17 (0.33)	0.11 (0.35)	0.13 (0.36)	0.18 (0.34)	0.14 (0.31)	0.14 (0.33)	0.20 (0.31)
Legal Ed.	0.20 (0.46)	0.13 (0.45)	0.09 (0.46)	0.63 (0.41)	0.60 (0.40)	0.54 (0.40)	0.60 (0.39)	0.59 (0.39)	0.52 (0.38)
Age	0.01 (0.02)	0.01 (0.01)	0.01 (0.02)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	-0.00 (0.01)
Male	0.41 (0.29)	0.31 (0.29)	0.27 (0.29)	-0.29 (0.27)	-0.36 (0.29)	-0.41 (0.28)	-0.06 (0.27)	-0.10 (0.27)	-0.17 (0.26)
Constant	1.96 (1.26)	2.09† (1.23)	2.42† (1.23)	5.03*** (1.16)	4.98*** (1.19)	5.42*** (1.17)	4.74*** (1.20)	4.55*** (1.21)	5.10*** (1.20)
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 finance dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Job title dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	301	301	301	301	301	301	301	301	301
R-sq.	0.25	0.25	0.27	0.28	0.26	0.29	0.33	0.29	0.34

Robust standard errors in parentheses. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

## Full Regression Tables: Use of Formal Legal Institutions (nonpayment dispute)

### OLS Regressions

	Lawyers	Lawyers	Lawyers	Courts	Courts	Courts	Law Enf.	Law Enf.	Law Enf.	Gov. Officials	Gov. Officials	Gov. Officials
Tax Complier	0.05 (0.21)		0.05 (0.22)	0.59* (0.23)		0.61** (0.23)	-0.06 (0.34)		-0.02 (0.34)	-0.01 (0.33)		0.02 (0.34)
Low Cash		-0.03 (0.20)	-0.03 (0.21)		-0.00 (0.24)	-0.10 (0.24)		-0.25 (0.32)	-0.24 (0.32)		-0.15 (0.36)	-0.15 (0.37)
Firm Age	0.07 (0.08)	0.07 (0.08)	0.07 (0.08)	0.13 (0.10)	0.15 (0.10)	0.13 (0.10)	0.11 (0.11)	0.10 (0.11)	0.11 (0.11)	0.14 (0.11)	0.14 (0.10)	0.14 (0.11)
Foreign Owned	0.01 (0.24)	0.01 (0.24)	0.01 (0.24)	0.34 (0.29)	0.30 (0.28)	0.36 (0.30)	-0.34 (0.42)	-0.29 (0.43)	-0.29 (0.43)	-0.12 (0.42)	-0.10 (0.43)	-0.10 (0.43)
Gov. Owned	-0.04 (0.32)	-0.04 (0.32)	-0.04 (0.32)	0.20 (0.38)	0.14 (0.37)	0.22 (0.38)	0.13 (0.46)	0.15 (0.45)	0.15 (0.45)	0.47 (0.45)	0.48 (0.45)	0.48 (0.45)
Bus. Assoc.	-0.22 (0.16)	-0.22 (0.16)	-0.22 (0.16)	-0.03 (0.20)	-0.03 (0.20)	-0.02 (0.20)	0.16 (0.29)	0.16 (0.29)	0.17 (0.29)	-0.08 (0.29)	-0.07 (0.29)	-0.08 (0.29)
Rights Violated	-0.02 (0.19)	-0.02 (0.19)	-0.02 (0.19)	0.37 (0.23)	0.37 (0.23)	0.37 (0.23)	0.61 <sup>†</sup> (0.32)	0.61 <sup>†</sup> (0.32)	0.61 <sup>†</sup> (0.32)	-0.02 (0.33)	-0.02 (0.33)	-0.02 (0.33)
Litigated	0.13 (0.19)	0.13 (0.19)	0.13 (0.19)	-0.19 (0.24)	-0.15 (0.24)	-0.18 (0.24)	-0.19 (0.33)	-0.17 (0.34)	-0.16 (0.34)	-0.19 (0.34)	-0.18 (0.35)	-0.18 (0.35)
Legal Ed.	0.04 (0.25)	0.02 (0.25)	0.03 (0.25)	0.32 (0.25)	0.27 (0.25)	0.30 (0.26)	0.67 (0.45)	0.64 (0.45)	0.64 (0.45)	0.11 (0.40)	0.10 (0.40)	0.10 (0.40)
Age	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	-0.03 <sup>†</sup> (0.01)	-0.03 <sup>†</sup> (0.01)	-0.03 <sup>†</sup> (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Male	0.05 (0.18)	0.04 (0.18)	0.04 (0.18)	0.37 <sup>†</sup> (0.19)	0.32 (0.20)	0.35 <sup>†</sup> (0.20)	-0.25 (0.29)	-0.29 (0.28)	-0.29 (0.29)	-0.12 (0.29)	-0.15 (0.29)	-0.14 (0.29)
Constant	5.70*** (0.80)	5.74*** (0.79)	5.71*** (0.79)	3.43*** (0.88)	3.78*** (0.88)	3.49*** (0.90)	6.70*** (1.17)	6.83*** (1.16)	6.82*** (1.19)	5.78*** (1.21)	5.87*** (1.24)	5.85*** (1.24)
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 finance 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.	0.19	0.19	0.19	0.35	0.33	0.35	0.27	0.27	0.28	0.24	0.24	0.25

Robust standard errors in parentheses. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, <sup>†</sup> p<0.10

## References

- Honaker, J., King, G., and Blackwell, M. (2011). Amelia II: A program for missing data. *Journal of Statistical Software*, 45(7):1–47.
- Kaufmann, D., Pradhan, S., and Ryterman, R. (2001). World bank finds new ways to diagnose corruption symptoms. *Beyond Transition: The Newsletter about Transforming Economies*, 10(1):10–11.
- King, G., Honaker, J., Joseph, A., and Scheve, K. (2001). Analyzing incomplete political science data: An alternative algorithm for multiple imputation. *American Political Science Review*, 94(1):49–69.