ONLINE APPENDICES

Appendix A: Survey Questions Used to Construct Key Variables

Survey Question Used to Create Dependent Variable and Placebo Dependent Variables

L10. What proportion of your total workforce is:

L10.1. Female? …….. %

L10.2. Migrants from outside the province where your business is located?..... %

L10.3. Employees with formal official labor contract? ..... %

Survey Questions Used to Create Participation Variables

F3. Have you ever **provided comments** on the Government's regulations and policies?

- ❑ Yes *(Please answer question 3.1 and 3.3)*
- ❑ No *(Please skip to question 4)*

F3.1. If yes, which channel was the **most effective**? (Check ✓only **one** option)

- ❑ Public – private dialogues
- ❑ Provincial delegations of the National Assembly
- ❑ Provincial website, online dialogue forums
- ❑ Business and professional associations
- ❑ Direct comments to relevant state agencies
- ❑ Others (please specify)…….

F3.2. Did your comments receive responses from authorized agencies?

- ❑ Yes
- ❑ No

F 3.3. **If yes,** did the authorized agencies use your comments?

- ❑ Yes
- ❑ No

Survey Questions Used to Create Legitimacy Variables

H1. What do you perceive as the **attitude of provincial government officials** towards private business?

- ❑ Negative
- ❑ Somewhat negative
- ❑ Neutral
- ❑ Somewhat positive
- ❑ Positive

F14. Do you agree with the following statements? *(Check ✓only **one** box for each row)*

Statements	Strongly agree	Agree	Disagree	Strongly disagree

1. The attitude of the provincial government does not depend on the firm's contribution to local development (e.g. number of employees hired, amount of tax paid) **(Scale reversed for analysis)**				
2. Government officials use compliance with local regulations to extract informal fees from business.				

Survey Questions Used to Create Information Variables

F7. How predictable is the implementation of these central laws and regulations at the provincial level?

- ❑ Never
- ❑ Seldom
- ❑ Sometimes
- ❑ Usually
- ❑ Always

6. What percentage of senior management's time was spent to understand with administrative procedures over the past year?

- ❑ Less than 1%
- ❑ From 1% to 5%
- ❑ From over 5% to 10%
- ❑ From over 10% to 15%
- ❑ From over 15% to 50%
- ❑ Over 50%

Appendix B: Placebo Tests to Address Common Method Variance (CMV)

Although we were fortunate to be able to add questions to a national survey in Vietnam and to have the survey coincide with introduction of an important new regulation, our reliance on a single survey instrument for all of the variables used in the analysis could still lead to spurious correlation caused by CMV (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Richardson, Simmering, & Sturman, 2009). CMV can fool analysts into thinking they have uncovered a theoretical relationship when in fact the correlation is attributable solely to the attributes of the research method. Skepticism has been raised about the perniciousness of CMV in the management and organization literature (Malhotra, Kim, & Patil, 2006; Spector & Brannick, 2009). Nevertheless, the single-shot nature of our survey warrants deeper investigation.

In line with the recommendations of Podsakoff et al. (2003), we attempted to limit CMV in the research design by: 1) assuring all respondents of anonymity and promising that identifiers would be separate from the survey; 2) using different scales for the dependent (continuous) and independent variable; 3) rescaling the dependent variable in our analysis; 4) relying on experiential, not perception based measures of the independent variables (i.e. respondents were asked if they commented, not how they feel about the commenting process); and 5) introducing key variables at different points in the survey (e.g. there are three pages and over twenty buffering questions between the labor and participation questions).

Perhaps as a result of these procedures, our results do not seem to be susceptible to CMV. It is important to note that we found no direct relationship between commenting and compliance in the first set of tests, and a negative relationship, once responsiveness was added to the model. In the terms of Harrison, McLaughlin, and Coalter (1996), the conditioning effect of responsiveness is

unlikely to be part of a respondent's theory-in-use and thus is less susceptible to spuriousness caused by CMV.

While ex-post statistical tests of CMV, such as confirmatory factor analysis, do exist, they are controversial and difficult to implement and interpret. As a more straightforward approach, we run a placebo test of three variables from the same labor module as our dependent variable that our theory would not anticipate to be correlated with participation or responsiveness. These include the respective shares of female, minority, and college educated workers in the firm. There are two benefits of these variables for assessing the threat of CMV. First, they are all measured on the same 100-point scale as our main dependent variable. According to the literature, CMV is most pronounced with similar scales, as unreflective respondents move through the survey and locate themselves in similar positions on each new scale (Doty and Glick 1998). Second, these questions immediately preceded and followed our contracted labor question in the survey. Female share appeared in question E10.1, minorities in E10.2, contracted labor in E10.3, and college share in E11.1. Again, questions in the same module are most likely to be susceptible (Lindell & Whitney, 2001). Finally, we study a question about strikes experienced in the last three years, which could not possibly result from comments provided on a regulation this year. In all cases, the expectation from our theory is zero correlation, but there is a high possibility of CMV driving spurious correlation.

To ensure consistency, we use the exact same specification that we did in the fully specified Model 3 (Table 4). The results in Table A1 are quite clear. On these variables, where CMV is likely to be most pronounced, we do not observe the same pattern as with our main dependent variable, despite similar position in the survey and similar scaling. There is no evidence of the positive relationship between responsiveness and these variables or the backlash results we

observed. These results demonstrate that the observed associations in Table 4 are not spuriously generated by respondents answering our single-shot survey.

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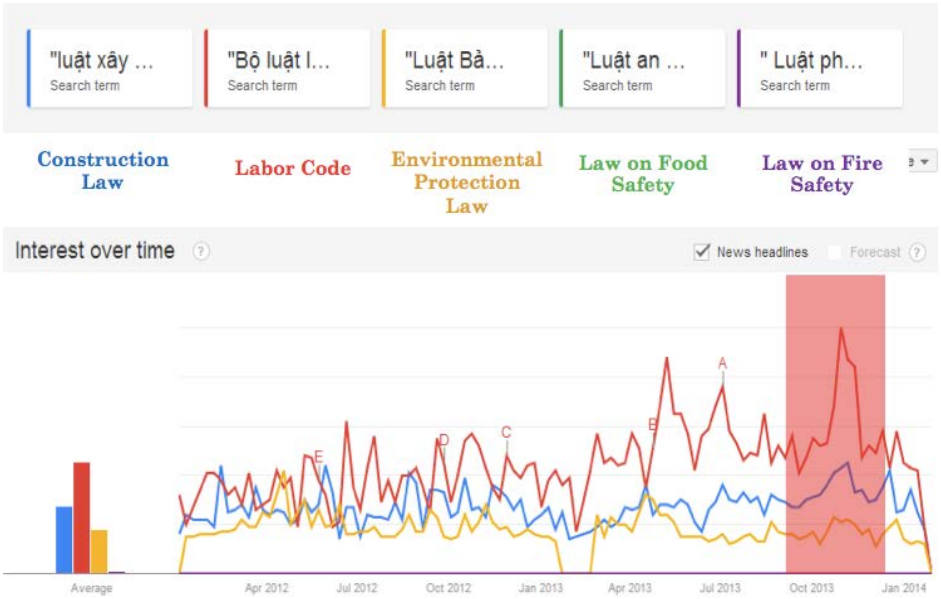
Appendix Table A1: Placebo Test to Assess Common Method Variance

Dependent Variables	From Labor Module			
	Female	**Minority**	**College**	**Strikes**
	(1)	(2)	(3)	(4)
Provided Comment	3.184***	-0.109	0.840	0.003
	(1.132)	(1.307)	(1.559)	(0.004)
Participation with Government Response	-1.327	0.212	0.940	0.000
	(1.328)	(1.515)	(1.767)	(0.005)
After Implementation Period	0.101	-4.074***	2.238**	-0.002
	(0.831)	(0.922)	(1.087)	(0.003)
Constant	35.727***	22.227***	32.626***	-0.001
	(2.171)	(2.674)	(2.583)	(0.002)
Ebalance	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes
Sector FE	Yes	Yes	Yes	Yes
Observations	6,173	5,505	4,897	6,136
Provinces	0.152	0.247	0.216	0.027
R-squared	63	63	63	63
RMSE	22.48	24.64	27.77	0.0728
Log Likelihood	-27931	-25410	-23184	7410

All models employ OLS. Robust standard errors, clustered at province level, in parentheses (*** p<0.01, ** p<0.05, * p<0.1). Female: Share of workforce female (%); Minority: Share of workforce non-Vietnamese (%); Bachelor: Share of workforce with college degree; Strikes: Number of strikes experiences in last 3 years; Tax: Negotiation with tax authority is a normal part of business (yes=1); Registration: Number of days to register business

Appendix C: Examining the Salience of the Labor Code Among 2013 Regulations in Vietnam



Appendix D: An Alternative Pathway for the Participation-Compliance Relationship

An alternative and simpler pathway, relative to our main legitimacy mechanism, is the idea that a firm can come to know more about a regulation through the act of participation than it otherwise would have. Business regulation in emerging economies is commonly described with the disparaging image of a confusing, confused, and costly mass of overlapping "red tape" (Djankov, Glaeser, & Shleifer, 2002). The effect of these poorly designed systems is that business managers, especially those in charge of resource-constrained SMEs, are less able to stay on top of and to fully understand all the regulations with which they are required to adhere. As discussed in the main body of the paper, low opinions of government legitimacy already means these firms are also less motivated to vigilantly invest in the acquisition of full knowledge of their regulatory obligations.

Scholars suggest that the process of participation in rule making can have the very straightforward benefit of teaching citizens about the law (Pateman, 1970; Sabatier, 1988). This mechanism is readily transferable to our setting, wherein political participation involves firms gaining access to draft regulations before their formal implementation. In other words, the alternative to this participation process could be that firms are unaware of the requirements of new business regulations until the government announces formally implementation or, worse still, until regulatory inspectors arrive at the factory gates. As such, a positive relationship between participation and regulatory compliance could simply be a matter of participation increasing firms' understanding of their regulatory obligations.

Olson (1999) finds that regulatory compliance increases when requirements are clearer and less complex. Researchers have also found that more informed stakeholders are less likely to make mistakes which lead to accidental violations (Fearon, 1998b; Goren, 2004; Keefer & Khemani, 2011; Mackie, 2006). Even in research in the procedural justice literature, awareness of the rules

has been shown to play a role in compliance behavior (Winter & May, 2001). Despite the straightforward nature of this mechanism, however, lab-based experimental work in economics, which has sought to separate the legitimacy and information effects of participation, has actually only found support for the legitimacy path (Dal Bo, Foster, & Putterman, 2010).

It is important to differentiate between the potential information dissemination function of political participation and the legitimacy mechanism we emphasize because the two have quite different policy implications. If the primary benefit of participation is information dissemination, a more straightforward focus on training would likely be a less costly means for achieving this goal. Evidence on the positive impact of training initiatives on regulatory compliance has been forwarded by both legal scholars (Pires, 2008) and environmental economists (Dasgupta, Hettige, & Wheeler, 2000). In this section, we empirically test for these two potential pathways.

Robustness Test: The Impact of Legitimacy after Removing the Effect of Information.

In Tables A2 through A3 below, we test whether the influence on a firm's regulatory compliance of giving feedback during the regulatory design process is mediated by firm perception of the legitimacy of government (H2), after accounting for the confounding effect of firm knowledge acquisition. Again, we focus our analysis on participation that was responded to by government. We begin by reconstructing latent variable measures of the legitimacy and knowledge constructs, before performing multiple equation mediation analysis. To perform the factor analysis, we again use the three legitimacy indicators, but this time include two indicators of firm knowledge and regulatory predictability (See Appendix A for question details).

<Appendix Table A2 Here>

Appendix Table A2 presents the results of the factor analysis with varimax rotation. The procedure identified two latent variables with eigen values above one. The three legitimacy variables load most strongly onto the first factor, which explains 35 percent of the variation in the variable grouping. The two information indicators load strongly onto the second factor, which explains about 22 percent of the observed variation. Because of the clear separation between indicators and the strong loadings onto the uncovered latent variables, we label the two factors *Legitimacy* and *Information*, which align clearly with our main legitimacy mechanism and alternative information mechanism. Using regression based prediction, we generate the two latent variables and use them in our mediation analysis below.

This time, we use a three-equation structural model to perform the mediation analysis and product of coefficients approach to calculate indirect and direct effects. In the first regression, we regress *Legitimacy* on *Participation with Government Response*. In the second, we regress *Information* on *Participation with Government Response*. The final equation regresses our compliance measure on predicted *Legitimacy* and *Information* measures from the previous two equations alongside the original *Participation with Government Response* measure. Again, all three equations adhere to our fully-specified models from previous analysis, which employ the ebalance weights to hold confounders constant, control for whether a firm received the survey after the implementation period, introduce province and sector fixed effects, and cluster standard errors at the province level.

1. $Legitimacy_i = \delta_0 + \delta_1 Gov\,\mathrm{Re}\,sponse_i + \delta 2 After_i + p_i + s_i + u_i^{leg}$
2. $Information_i = \alpha_0 + \alpha_1 Gov\,\mathrm{Re}\,sponse_i + \alpha_2 After_{iit} p_i + s_i + u_i^{\inf}$
3. $Compliance_i = \beta_0 + \beta_1 Legitimacy_i + \beta_2 Information_i + \beta_3 Gov\,\mathrm{Re}\,sponse_i + \beta_4 After_i + p_i + s_i + \varepsilon_i$

Table A3 presents results of the mediation analysis. The shaded Panel 1 provides results using our continuous measure of compliance, while Panel 2 uses the three-point scale. Both panels follow a similar progression through the specifications. The first two models present results of regressing our mediator variables on government response (equations 1 & 2 above). The third model shows the indirect and direct effects of government response (equation 3). Finally, the fourth and fifth equations present results of the Imai et al. (2010) mediation approach.

<Appendix Table A3 Here>

Consistent with our theory, *Participation with Government Response* is a significant predictor of *Legitimacy* ($p<0.01$). Using the continuous scale, response to comments increases feelings of legitimacy by about a quarter of a standard deviation. The relationship between *Participation with Government Response* and *Information*, however, is even stronger (about half a standard deviation and also significant at the 0.01 level). In the third equation, we see evidence that *Participation with Government Response* has a weakly significant direct effect ($p<0.1$) and strongly significant indirect effect mediated through *Legitimacy* ($p<0.001$). The indirect effect of government through *Information* is negatively signed but statistically insignificant. In short, while participation and responsiveness appear associated with greater regulatory knowledge, this knowledge has little apparent influence on a firm's decision to comply and could even undermine it. The findings are similar whether we use the noisier continuous measure of formal labor or the three-point scale.

Table A4 calculates the quantities of interest derived from the analysis. We find that the total effect of *Participation with Government Response* is about 2.8 percentage points more contracted employees. Of this, 2.6 percentage points are achieved directly, while 8 percent (0.228) of the effect of government response is indirectly mediated by *Information* and *Legitimacy*. This

small total indirect effect results from the countervailing influence of *Information* and *Legitimacy*, which pull compliance in two different directions. If we eliminate, the negative effect of *Information* on compliance, the mediating effect of *Legitimacy* is 0.66, about 24 percent of the total effect of *Participation with Government Response*. Studying the compliance scale, the effects are even stronger, accounting for 45 percent of the total effect of *Participation with Government Response*.

<Appendix Table A4 Here>

In conclusion, depending how compliance is measured, between 24 percent and 45 percent of the effect of *Participation with Government Response* is mediated by *Legitimacy*. Firms that receive a government response to their comments have more positive feelings about the attitude of government actors toward their business. This attitude appears to affect how those actors view the role of regulation, as these firms are less likely to view regulations as merely a way to extract bribes from private businesses. As a result, firms are more likely to adhere to the principles articulated in the law through compliance.

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Table A2: Factor Analysis to Generate Mediating Variables

Indicators	Mean	SD	Min	Max	Factor1 (Legitimacy)	Factor2 (Information)	Uniqueness
Gov't attitude toward private sector	3.46	0.83	1	5	0.729	0.221	0.419
Gov't officials use regulations to extract bribes	2.58	0.67	1	4	0.719	-0.218	0.435
Gov't attitude doesn't depend on contribution	2.70	0.64	1	4	0.773	-0.019	0.402
Time spent learning about regulations	2.46	1.44	1	6	-0.320	0.580	0.561
Predictability of Regulation	2.09	1.01	1	5	0.102	0.813	0.328
Eigenvalue					1.760	1.095	
Difference					0.702	0.186	
Variance Explained					0.352	0.219	
Mean					0.000	0.000	
SD					1.000	1.000	
Min					-2.130	-3.832	
Max					4.038	2.949	

The table presents the rotated factor loadings (pattern matrix) and unique variances from a factor analysis using a varimax rotation procedure. Five variables were used which load on to two unique factors (based on eigenvalues>1) which correspond to our theoretical distinction of legitimacy and information. Shading highlights which variables are correlated with the underlying factors.

Table A3: Mediation Models

Dependent Variables	**1. Formal Labor (%)**			**2. Compliance Scale (0-2)**		
	Mediation Equations		Final Model	Mediation Equations		Final Model
	Legitimacy	Information	Labor (ln)	Legitimacy	Information	Compliance
	(1)	(2)	(3)	(4)	(5)	(6)
Legitimacy			2.555***			0.093***
			(0.589)			(0.014)
Information			-0.956			-0.064***
			(0.631)			(0.015)
Participation with Government Response	0.260***	0.455***	2.572ŧ	0.260***	0.455***	0.0587ŧ
	(0.048)	(0.046)	(1.373)	(0.048)	(0.046)	-0.035
Constant	-0.156***	0.078***	79.659***	-0.156***	0.078***	1.368***
	(0.025)	(0.023)	(0.684)	(0.025)	(0.023)	(0.017)
e.Variance	1.005***	0.956***	815.912***	1.005***	0.956***	0.495***
	(0.032)	(0.031)	(28.118)	(0.032)	(0.031)	(0.012)
Control for After	Yes	Yes	Yes	Yes	Yes	Yes
Ebalance	Yes	Yes	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes	Yes	Yes
Sector FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,055	4,055	4,055	4,055	4,055	4,055
Provinces	63	63	63	63	63	63
Log Likelihood	-14403	-14403	-14403	-7949	-7949	-7949

This table presents the results of our mediation models. The mediation involves three equations implemented using STATA's SEM procedure. In the first model, we assess the intermediate relationship between receiving a government response and our measure of legitimacy (derived from Table A1). The second model performs the same analysis for our latent measure of information. The third model captures the direct effect of government response as well the indirect effects mediated by legitimacy and information. The table is divided into two panels with different constructions of our final dependent variable. Panel 1 uses share of workers with formal contracts and employs OLS. Panel 2 uses a three-point scale of (0: Non-Compliant; 1) Partially Compliant; 2) Fully Compliant) and utilizes an ordered probit (oprobit) procedure. We also replicate the operation using the Imai et al. (2012) procedure MEDEFF. All models use entropy balancing, control for before/after implementation period, and employ provincial and two-digit sector fixed effects. Robust standard errors, clustered at province level, are in parentheses in both models (*** p<0.01, ** p<0.05, ŧ p<0.1).

Table A3: Quantities of Interest from Mediation Analysis

Overall Effects of Government Response to Firm Comments	**Formal Labor (%, ln)**	**Compliance Scale**
Total Effect (Indirect + Direct)	2.800	0.058
Direct Effect	2.572	0.053
Indirect Effect	0.228	-0.005
Proportion of Total Response Effect Mediated	8.2%	-9.1%
Ratio of Indirect to Direct Effect	0.162	-0.084
Ratio of Total Government Response Effect/Direct Effect	1.089	0.961
Effects of Legitimacy Mechanism		
Indirect Effect of Legitimacy	0.663	0.024
Proportion of Total Effect Mediated by Legitimacy	23.7%	45.1%
Ratio of Indirect Effect via Legitimacy	0.258	0.413
Effects of Information Mechanism		
Indirect Effect of Information	-0.435	-0.029
Proportion of Total Effect Mediated by Information	-15.5%	-54.2%
Ratio of Indirect Effect via Information	-0.169	-0.496

This table presents the derivations of the quantities of interest derived from Table 8. The columns correspond to the two different dependent variables.