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Protection Not for Sale, But for Tax Compliance

Didac Queralt
Yale University

How do rulers raise taxes when the fiscal capacity of the state is weak? I argue that, in conditions of low fiscal capacity, rulers might secure high tax yields by granting protection from competition to key domestic producers. I offer qualitative evidence of this exchange in the developing world today and test the theory against a sample of thirty-two developing states in Latin American, Eastern Europe, and the former Soviet Union circa 2005. Results indicate that, conditional on poor fiscal capacity, declining industries pay higher taxes (or evade less) if governments grant them tariff protection from international competitors. The results add to recent scholarship that studies the conditions under which entry barriers—which are otherwise inefficient institutions—result in second-best solutions for states whose capabilities are still consolidating. My findings suggest that trade protection does not always stem from rent-seeking by government. This article therefore offers a new, alternative hypothesis to canonical models in international political economy.

Introduction

How do rulers raise taxes when the fiscal capacity of the state is weak? Rulers can *invest* in expanding fiscal capacity. Doing so involves improving the capacity of the state to assess wealth and monitor compliance. It also enhances the material capabilities of the tax administration. This strategy, however, is politically risky and slow-moving. Bureaucratic investment reduces current spending on infrastructure and services such as roads, hospitals, or schools. These are often crucial for political survival. Moreover, investment in fiscal capacity frequently stumbles and stalls in the face of opposition from the rich—the very group that stands to pay higher taxes if fiscal capacity becomes expanded.

As an alternative to fiscal capacity investment, rulers may devise an incentive system of sticks and carrots to induce tax abidance by wealthier constituents: the so-called *quasi-voluntary compliance* (Levi 1988). Drawing from European trade history, I elsewhere (Queralt 2015) formalize one such institutional solution: the exchange of protection from competition for higher tax compliance by domestic producers. This strategy achieves two goals. First, protectionist policy artificially reduces the number of producers. The lower number of market operators mechanically facilitates tax collection, as oligopolies are easier to monitor than competitive markets (Musgrave 1969). Second, it allows the ruler to punish noncompliers by withdrawing protection, thus alleviating noncontractibility issues of taxation. The heyday of this exchange occurred during the mercantilist era in Western Europe (Ekelund and Tollison 1981; Heckscher 1931), when rulers sold trade monopolies to selected firms as a means of guaranteeing a stable stream of revenue. Far from disappearing, the creation of artificial monopolies for fiscal motives persisted across Western Europe well into the nineteenth century (Bastable 1891).

This article shows that this mercantilist logic, to which I generically refer as *protection for tax compliance*, persists in the developing world, where the capacity to raise taxes by coercive means remains limited. Various country-specific accounts support this claim. For instance, China's urban economic expansion throughout the 1980s and 1990s relied on protection for tax compliance. Local authorities raised internal entry barriers to favor local industry, while the latter abided by high tax rates that financed the local economy (Young 2000). Well until the mid-1990s, large industrial conglomerates in Korea paid *quasi-taxes*—formally, "voluntary" massive donations to quasi-public welfare organizations—in order to secure cheap loans from government-owned banks (Chang and Chang 1994). Importantly, refusal to abide by quasi-taxes led to a firm's immediate termination (Kang 2002, 103). More recently, state-sponsored oligopolistic industries were created in the former Soviet Union—sometimes even from scratch—under the expectation of abidance by high tax rates (Easter 2011, Gehlbach 2008a). In Latin America, uncompetitive firms in Bolivia and Chile become more tax-abiding when they benefit from tariff and nontariff barriers, respectively (Queralt 2012). Similarly, politically influential firms in the developing world are exposed to fewer regulatory and financial constraints while they are also subject to a higher tax burden (Desai and Olofsgård 2011, Menaldo 2016). All these accounts follow a similar logic: the political authority selects specific producers and protects them from competition (by raising entry barriers of all kinds) in return for higher tax compliance.

Building on this work, I identify the conditions under which protection for tax compliance occurs and test for them *explicitly*. I borrow the theoretical corpus from my earlier work (Queralt 2015), which advances two necessary conditions for protection for tax compliance to hold. First, the stock of fiscal capacity (that is, the capacity to

Didac Queralt is assistant professor in the Political Science Department at Yale University. He studies the origins of fiscal capacity from three different angles: war, trade, and electoral competition.

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tax private income) must be low. Otherwise the inefficiencies of protectionism do not compensate the surge in tax revenue. Second, domestic industry must be noncompetitive. When this is the case, the risk of entry of a superior competitor—namely, being driven out of the market—solves contractibility problems of taxation in scenarios of low fiscal capacity. Together, the theoretical model implies that, when fiscal capacity is low, declining industries pay higher taxes (or evade less) if they are granted protection from superior market competitors.

To test this proposition, I draw on data for thirty-two developing economies across Latin America (LA), Eastern Europe (EE), and the former Soviet Union (FSU) in 2005 and 2006. I evaluate the theoretical prediction with industry-level data of tax compliance and competitiveness, tariff data as proxy of protectionism, and a novel measure of fiscal capacity: the size of the tax administration relative to total population. Results show that tariff protection makes declining industries more tax-abiding and that this effect accelerates as fiscal capacity becomes weaker. Importantly, results are robust to lower levels of aggregation (that is, firm-level tax compliance), nonresponse and firm-idiosyncratic bias (Desai and Olofsgård 2011), quasi-exogenous measures of protection, and various proxies of fiscal capacity.

The analysis revisits a standard result in international political economy, namely, *protection is for sale* (Grossman and Helpman 1994), by showing that trade protection does not necessarily result from government rent-seeking. Similarly, the findings resonate with the notion of *second-best institutions* under conditions of low state capacity (Rodrik 2008). I reexamine both contributions in the conclusion.

The remainder of this article is organized as follows: first, I articulate the logic of protection for tax compliance; second, I present the research design and data sources; third, I discuss the empirical results. To conclude, I address the theoretical and policy contributions as well as the welfare implications of protection for tax compliance.

Protection for Tax Compliance

Queralt (2015) introduces a model in which a mercantilist economy characterized by low fiscal capacity and high levels of trade protection evolves endogenously into a free-trade, high-fiscal-capacity economy. This model is divided into two parts. First, a ruler negotiates with the domestic producer over taxation and trade policy, conditioning entry barriers to new competitors on higher tax compliance by incumbent firms. Second, the ruler decides whether to invest in fiscal capacity while protected firms decide whether to adopt higher technologies of production in anticipation of trade liberalization. The protection for tax compliance bargain is a natural spin-off of the first part of Queralt's (2015) model. In this section, I present in a nontechnical fashion the main intuitions of that exchange, referring the interested reader to the original article and the supplementary materials.

Suppose that there are four actors in the economy: the political authority (or ruler), an incumbent monopolist producer, a potential entrant, and labor.[1] Producers are characterized by the technology that they operate, which might be high or low. Producers seek to maximize profit, which strictly decreases in the tax rate set by the ruler. Labor derives (indirect) utility from private consumption and public good spending. Consumption is financed by wages. These equal the marginal productivity of labor, which is a positive function of the technology vintage operated by the producer. Public spending is financed with taxes paid by the incumbent producer.

The ruler sets the trade regime (or more generally, *entry regulation*), as well as the tax rate levied on the producer. Tax yields finance public good provision, which labor values. However, an excessively high tax might be detrimental to labor, as taxes increase production costs and final prices, decrease demand, and, ultimately, depress market-clearing wages and private consumption. Initially, the tax rate t is upper-bounded by the stock of fiscal capacity, $t \leq \tau,\ \tau < 1$. The stock of fiscal capacity determines the maximum share of private income that can be taxed by only coercive means. This share reflects the strength of the administrative apparatus of the state. That is, a weak bureaucratic apparatus maps into weak fiscal capacity.

Along with taxes, the ruler sets entry regulation, which consists of allowing or banning entry of a new firm. Entry barriers may take any form of competition or trade policy as long as they grant the incumbent producer monopoly access to the domestic market.[2]

Crucially, the ruler might condition entry barriers on tax rates. In particular, he or she raises entry barriers provided that the incumbent firm abides by a tax rate above the stock of fiscal capacity, $t_p > \tau$, with subscript p denoting *protection*. Otherwise, the ruler opts for *free entry*, in which case a new firm operating at a high technology enters with probability 1. In that case, the ruler sets $t_e \leq \tau$, that is, a tax rate that is constrained by the stock of fiscal capacity. Notice that the new entrant is already competitive, thus uninterested in being protected at a cost, $t_p > t_e$.

For the sake of generality, I assume that the ruler maximizes a social welfare function, in which both labors' (or consumers') and the domestic producers' interests are considered. Higher valuations of consumers' welfare may signal higher levels of democratization (but also populism), while higher valuations of the producers' welfare might be associated with oligarchic societies, where capital monopolizes political and economic power (Acemoglu 2008). Initially, the ruler is assumed altruistic, and he or she does not keep any share of tax revenue for self-consumption. This assumption serves two purposes: first, it characterizes scenarios in which protection might be socially optimal; second, it allows us to establish when and to what extent social welfare is affected by political giving.

The protection for tax compliance bargain is a one-period static game with an extensive structure. First, the ruler sets entry and tax policy. If barriers are adopted, the incumbent producer stays in and complies with $t_p > \tau$. If barriers are not raised, entry takes place, intermediate good producers compete, and the winner abides by $t_e \leq \tau$. Given entry and tax policy, tax revenue, wages, and profit follow. The game is solved by backward induction.

Queralt (2015) shows that protection for tax compliance is a generically unique equilibrium provided that: (1) the incumbent producer operates an outdated technology compared to the would-be entrant, and the

[1] Refer to Appendix 5 of the supplementary materials for a relaxation of the monopoly assumption.

[2] See Hoekman and Hostecki (2000) and Scherer (1994) for the functional equivalence of competition policy (for example, licenses) and trade policy (for example, import quotas).

economy is Schumpeterian (that is, the most productive firm drives every other competitor out of business),[3] and (2) initial fiscal capacity is low enough, $\tau \leq \hat{\tau}$. If both conditions are simultaneously met, the producer has a vested interest in being sheltered from competition, and the ruler maximizes social utility by blocking newer competitors in exchange for tax compliance with a tax rate above the stock of fiscal capacity, $t_p^* > \tau$.[4]

The logic of the equilibrium is as follows. First, the expected outcomes of *creative destruction* solves noncontractibility issues in taxation in low fiscal capacity settings. The outdated incumbent producers' fear of extinction makes protection for tax compliance self-enforcing.[5] Second, when fiscal capacity is limited, the ruler faces a *trade-off*; if he or she protects, tax revenue increases (and public spending expands) but wages (thus private consumption) decrease, as labor productivity is stuck with the low technology operated by the incumbent producer. If the ruler opens the economy, wages increase thanks to the technology boost of the new firm, but tax revenue remains upper bounded by the stock of fiscal capacity.[6] There exists a unique value in the stock of fiscal capacity, $\hat{\tau}$, at which the marginal gain of protection for tax compliance (*high revenue, low wages*) equals the marginal gain of free entry (*low revenue, high wages*). For lower values of fiscal capacity, $\tau \leq \hat{\tau}$, the marginal gain from a unit increase in tax revenue is greater than the marginal loss in wages, and protection for tax compliance is preferred.[7] For higher values of fiscal capacity, $\tau > \hat{\tau}$, the relative magnitude of these marginal effects flip, and free entry is preferred.

To sum up, the protection for tax compliance game states that a social welfare–maximizing ruler finds protection for tax compliance preferable to free entry when fiscal capacity endowment is *sufficiently low* despite obvious costs; namely, protection blocks entry of superior technologies and brings wages and consumption down. In exchange, tax yields derived from protection for tax compliance finance levels of public spending otherwise unfeasible. The result is grounded on the power of regulation once combined with the logic of Schumpeterian market competition. That is, protection for tax compliance offers a unique mechanism of institutional extortion of uncompetitive producers inasmuch as it alleviates contractibility problems of taxation in scenarios of low fiscal capacity. When domestic producers are uncompetitive, revenue-thirsty rulers may exploit the domestic producers' vulnerability for tax purposes.

The basic setup presented in this section allows for multiple extensions. The appendix of the supplementary materials evaluate several of them: imperfect monopoly enforcement, oligopoly competition, technological unemployment following entry, or inefficiencies in the provisions of public goods. Specifically, Appendix 2 of the supplementary materials investigates whether political contributions unravel the protection for tax compliance equilibrium. One may imagine inefficient producers making contributions to the ruler as a means of preventing entry *while keeping taxes low*. This logic can be incorporated into the model by assuming the following: first, a ruler who is no longer purely altruistic but who also values private-consumption, thus making her responsive to bribing or political giving; and second, by allowing the incumbent producer to give the ruler a share of his or her profit in return for protection without higher taxation, while making a bigger profit this way than by sticking to protection for tax compliance. The result of this extension shows that protection for tax compliance resists political giving provided that the incumbent producer is obsolete relative the would-be entrant, fiscal capacity is low, *and* the ruler minimally advances the interest of labor. If any of these three conditions is not met, protection is then for sale, much in line with the canonical result in Grossman and Helpman (1994). By the same token, if the three conditions are simultaneously satisfied, not even contributions prevent taxes from being set above the stock of fiscal capacity in return for protection from competition.

Empirical Design

The main empirical implication of the theoretical discussion reads as follows: when fiscal capacity is low, outdated producers pay higher taxes in return for protection from superior competitors. In this section, I evaluate this untested prediction with observational data for the contemporary developing world. Specifically, I investigate the incidence of protection for tax compliance in 2005 and 2006 across thirty-two developing economies in LA, EE, and the FSU. These countries are particularly suitable for this test because they have weaker fiscal capacity than Western economies, and all but two (Belarus and Kazakhstan) have some form of democratic institutional setting, which should guarantee a minimum preference alignment between rulers and labor, a precondition for the ruler providing tax-financed public goods.

Hoekman and Hostecki (2000) extensively document the functional equivalence of competition policy (for example, licenses and markups) and trade policy (for example, tariff and nontariff barriers) in restricting access to the domestic market. In this analysis, I investigate the effect of one of these instruments on tax compliance: namely, import tariff protection, indexed at the two-digit *industry* level, as defined by the International Standard Industry Classification (ISIC), Rev.3.1.

The analysis assumes that industry-level tariff protection is negotiated at the industry level and that industries have mechanisms (like businesses' organizations or peer monitoring) to enforce tax compliance by their members.[8] Accordingly, I expect governments to grant tariff

[3]Technically, the protection for tax compliance equilibrium only arises when the technology differential between the incumbent and would-be entrant is not *too large*. When the benefits of a new technology are huge, no barrier prevents it from entering. Statistically, these circumstances are exceptional (Comin and Hobijn 2009).

[4]The cutoff in the stock of fiscal capacity, $\hat{\tau}$, and the tax rate, t_p^*, are set in equilibrium.

[5]Notice that protectionist policy such as licenses, quotas, or subsidies can easily be declined, while compliance can be assessed on a regular basis too. For instance, value added tax, the most popular tax in developing countries nowadays, is usually collected on a monthly basis. Such flexibility, combined with the incumbent's payoff upon entry (that is, eventual extinction) should prevent major deviations by the incumbent producer. That is precisely the beauty of creative destruction once applied to tax policy.

[6]At the risk of stating the obvious, protection for tax compliance unravels in the presence of competitive firms, as these cannot be threatened with dropping some protection that they do not need.

[7]Technically, for $\tau = \hat{\tau}$, the ruler is indifferent between protection for tax compliance and free entry. I assume that indifference is solved in favor of protection for tax compliance. Refer to Proposition 1 in Appendix 1 of the supplementary materials for further details.

[8]Businesses' organizations in LA, EE, and the FSU have strengthened since the early 1990s. Schneider (2004, chap. 8) shows various examples of the capacity of encompassing sectoral businesses' organizations in Chile, Mexico, and Brazil to internalize the costs of stabilization programs, tax hikes, and

protection based on industry-level tax compliance and not on individual firm behavior. Based on this assumption, industries, not firms, are the appropriate unit of analysis for this test. Correspondingly, I work with two-digit industry averages of tax compliance, obsolescence, and remaining controls. In total, the sample includes twenty-six two-digit mining and manufacturing industries, which are nested within thirty-two countries, making a total of 378 industry-country observations.

It might be argued, on the contrary, that industry-level tariffs are negotiated at the firm level or that within-industry tax compliance variation should also be modeled. To address these concerns, I report a battery of three-level hierarchical tests in Appendix 12 of the supplementary materials. In those models, firms are nested within industries, industries within countries, and the dependent variable is the tax compliance of firm i in industry j in country k (N = 7,334). The results of the firm-level tax compliance analysis replicate those in the main text, being consistent with the assumption that industries organize internally to monitor tax compliance of their members. Those models also fit additional country-level confounders as well as joint sector-country fixed effects to address unobserved heterogeneity issues. Firm-level tax compliance models are also appropriate to examine nonresponse issues (7.6 percent of the sample) and control for potential firm-specific biases (Desai and Olofsgård 2011; Hallward-Driemeier and Aterido 2009; Jensen, Li, and Rahman 2010). Altogether, the firm-level analyses in Appendix 12 of the supplementary materials suggest that industry-level results reported below are not driven by ecological fallacy, nonresponse bias, firm-level systematic error, or unobserved heterogeneity.

To estimate the theoretical prediction at the two-digit industry level, I examine whether *obsolete* industries in *low fiscal capacity* economies are more *tax compliant* (that is, they evade less) once they are granted *protection*. That is, three conditions must be simultaneously met for tax compliance to increase: fiscal capacity must be low, incumbent industries must be uncompetitive, and protection must be positive. In order to test this prediction, a three-way interaction is in order. Specifically, for two-digit industry j in country k,

$$\begin{aligned} Tax\ Compliance_{jk} = {} & \beta_0 + \beta_1 Low\ fiscal\ capacity_k \\ & + \beta_2 Protection_{jk} + \beta_3 Obsolete_{jk} \\ & + \beta_4 (Obsolete_{jk} \times Protection_{jk}) \\ & + \beta_5 (Low\ fiscal\ capacity_k \times Protection_{jk}) \\ & + \beta_6 (Low\ fiscal\ capacity_k \times Obsolete_{jk}) \\ & + \beta_7 (Low\ fiscal\ capacity_k \times Obsolete_{jk} \\ & \qquad \times Protection_{jk}) \\ & + \mathbf{Z}_{jk}\beta_8 + \mathbf{X}_k\beta_9 + \alpha_\delta + \alpha_\kappa + \epsilon_{jk} \end{aligned} \quad (1)$$

where $\mathbf{Z}_{jk}$ denotes industry-level controls, $\mathbf{X}_k$ country-level controls, α_δ a region fixed effect, α_κ a battery of sector fixed effects, and ϵ_{jk} the disturbance term. The main coefficient of interest is β_7. This coefficient should be positive if, conditional on low fiscal capacity, obsolete industries are more tax-abiding once protected from international competition.[9] Next, I briefly describe how the four key magnitudes in the research hypothesis are measured. Appendices G and H of the supplementary materials report further details and summary statistics.

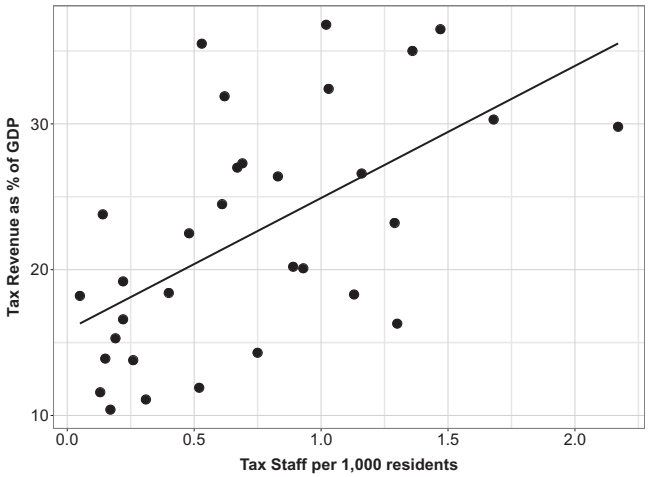

Figure 1. Share of tax revenue over GDP vs. personnel working for tax administration per 1,000 national population
Notes: (1) R2 = 0.58. (2) Data source: US AID fiscal reform and economic governance project.

Fiscal Capacity

This variable varies by country, not industry. It is approximated by the total number of staff of the tax administration per 1,000 residents. This information is made available by the US Agency for International Development Fiscal Reform and Economic Governance Project. The values in this analysis are recorded circa 2007. As Figure 1 indicates, the number of staff working for the fiscal administration relative to the total population is strongly correlated with the ratio of national government revenue to gross domestic product (GDP), the standard proxy for fiscal capacity (Besley and Persson 2011; Hendrix 2010). However, as opposed to the latter variable, *tax staff* is a lumpy magnitude that the ruler cannot easily modify in the short run—public servants usually have enhanced employment protection to secure their independence vis-à-vis elected officials—and, unlike tax ratios, it does not mechanically change with the economic cycle. For this very reason, it genuinely reflects the structural capacity of the state to tax private income.

The tax administration may be used as a form of patronage (like public employment). To address this possibility, Appendix 9 of the supplementary materials shows that tax staff correlates with income tax ratios, the

trade agreements. Flores-Macías (2014) documents the capacity of Colombian businesses' associations to internalize tax hikes. For Russia, Pyle (2009) shows the strong incentives that firms have in joining business associations. Collectively they secure property rights from predatory government and bureaucracy. Importantly, in the absence of nonmarket institutions of information transfer, quality control, and standard setting and enforcement, Duvanova (2013) shows that businesses' associations in the FSU evolve as "regulatory substitutes" of the state, thus adopting mechanisms of self-regulation. This is the kind of coordination capacity assumed in the test.

[9] β_6 accounts for the taxes paid by an obsolete industry in a low fiscal capacity economy when it is *not* protected. According to the theoretical model, I expect this coefficient not to significantly differ from the sample average tax compliance. β_4 represents an off-the-equilibrium path outcome: obsolete industries in high fiscal capacity economies being protected. The same applies to β_5, that is, competitive industries being protected when fiscal capacity is low. The theoretical model offers no aprioristic expectation for these two coefficients.

government effectiveness index in the Worldwide Governance Indicators, the size of the shadow economy (negatively), and the country-average tax compliance in the World Business Environment Surveys (WBES). These results are hardly reconcilable with the tax administration being systematically used for patronage.

Notice that expression (1) refers to *low* fiscal capacity instead of fiscal capacity. I define the former as follows:

$$\textit{Low fiscal capacity} \equiv -1 \times \textit{fiscal capacity}$$

This switch aligns all variables in the three-way interaction, simplifying the interpretation of the statistical test. Lastly, the size of the tax administration may follow economies of scale (Gehlbach 2008b). To account for that, all models include the size of total population, measured as of 2006 (World Bank 2015).

Protection

Entry barriers are proxied by import tariffs, the cornerstone of protectionism. Three coding decisions are required to build a meaningful measure of protection. First, I work only with ad valorem equivalent (AVE) tariffs, which guarantee comparability across different industries. Second, attention is restricted to *effective* tariff measures only (*statuary* lines are disregarded). This implies that when a similar product has different tariffs (they might vary by trade partner), only the lowest value is considered. Third, within each two-digit industry there are multiple tariff lines. To cope with within-industry variation, each tariff line is weighed by its trade volume. Altogether, the tariff measure used in the analysis is effective, representative, and ad valorem. All tariff data are drawn from the United Nations Conference on Trade and Development's Trade Analysis Information System data.

The rest of covariates in expression (1) are two-digit industry aggregates (either means, proportions, or totals). These aggregates are drawn from the 2005 and 2006 WBES, which offers a representative sample of mining and manufacturing firms in each of the thirty-two countries. For each firm, the WBES provides information on tax compliance, obsolescence and other covariates, as well as the two-digit industry the firm classifies as. Next, I describe how these aggregates are created:

Tax Compliance

The WBES inquires firms about their tax compliance, not tax payments. This is methodologically convenient because responses automatically factor out idiosyncratic tax treatments across industries. Information on tax compliance is sensitive for obvious reasons. The WBES questionnaire retrieves this information in the following terms:

> Recognizing the difficulties that many firms face in fully complying with taxes and regulations, what percentage of total annual sales would you estimate the typical firm in your area of business reports for tax purposes?

This wording is purposively chosen to elicit more candid responses than if respondents were asked directly (Knack 2007). Crucially, the reliability of these responses is confirmed by Gehlbach (2006) and Desai and Olofsgård (2011). These works show that the distribution of this variable satisfies the main predictions of taxation theory; that is, self-reported tax compliance is greater for larger firms, monopolies, and state-owned and resource-extractive enterprises. Additionally, using firm-level data, Appendix 12.1 and 12.2 of the supplementary materials investigate issues of nonresponse and firm-specific bias, which could be related to repressive political conditions (Hollyer, Rosendorff, and Vreeland 2011; Jensen, Li, and Rahman 2010) and idiosyncratic perceptions of contextual factors (Desai and Olofsgård 2011; Hallward-Driemeier and Aterido 2009), respectively. The analyses in these appendixes suggest that the dependent variable captures genuine trends in tax compliance while showing that results are not driven by nonresponse or firm-specific bias. Finally, pairwise correlation between average national tax compliance and the share of tax revenue over GDP for the thirty-two economies considered in the analysis is 0.51.

Political conditions may shape firms' responses to sensitive topics too. Jensen, Li, and Rahman (2010) show that firm managers' perceptions of corruption inversely correlate with levels of free speech protection. Since tax compliance is a sensitive topic, I expect it to be influenced by similar considerations. Following Jensen, Li, and Rahman (2010), I include the Freedom House's free media index as an additional control. The original variable is reversed so that higher values indicate freer speech.

For the sake of representativeness, I weigh industry average tax compliance by firm size. Under this premise, the responses of big firms have more leverage than those of smaller competitors. To approximate firm size, I use the share of firms' employees to total industrys' labor. Robustness tests below show that results hold (even strengthen) when the unweighted average is used.

Obsolescence

I seek to obtain a meaningful indicator of the technological distance between domestic and foreign industries. This measure would indicate how exposed domestic firms are to foreign competitors and how interested they might be in tariff protection. The WBES includes a variable that indicates whether the firm has *recently* obtained a new internationally recognized quality accreditation (e.g. International Standard Organization (ISO) 9000). Besides being a reasonable proxy for the technological distance with foreign competitors, this item establishes an objective, international standard of quality common to all countries. This variable correlates positively with other practices that are generally associated with competitive firms: recent adoption of a new technology (0.17 Pearson correlation coefficient) and engagement in costly Research & Development activity (0.23 Pearson correlation coefficient). Yet, these other proxies of competitiveness lack the crucial reference to technological distance with respect to foreign competitors required to test the theory at play.[10]

For each two-level industry, *obsolete* measures *the proportion* of firms lacking an international quality-accreditation. An industry is considered obsolete (or declining) when this proportion approaches 1 and competitive when it approaches 0. For clarification purposes, all industries in the sample qualify for such international accreditations.

[10]Price data, which could also proxy firm competitiveness, is not available in the WBES.

Controls

Besides the four key variables in expression (1), I add five potential confounders as identified in the literature. First, export-oriented industries are technologically advanced (Melitz 2003), but exports are easily taxed too (Musgrave 1969). Accordingly, I control for the export intensity of each two-digit industry. Second, monopolies are easy to tax (Gehlbach 2008a), but they also have higher capacity to lobby for low taxes *and* high protection (Richter, Samphantharak, and Timmons 2009; Grossman and Helpman 1994, respectively). Accordingly, I control for the number of competitors in each two-digit industry. Third, Desai and Olofsgård (2011), Easter (2011), and Gehlbach (2006) find that old-regime firms in the FSU are heavily taxed but also have strong connections, which might be seized to lobby for protection. Thus, I control for the *average firm age* as well as *public ownership share* of each two-digit industry. I also include *total industry employment*, as it is a predictor of tax compliance (Gehlbach 2008a) as well as protection (Parente and Prescott 2000).[11]

Finally, to capture any remaining cross-region and cross-industry unobserved heterogeneity, the models include region- and sector-fixed effects. To build the latter variable, I collapse the twenty-six two-digit ISIC industries into eight categories, or *sectors*.[12] The eight-category variable seeks to capture unobserved heterogeneity across industries, which could bias the estimates of interest while absorbing fewer degrees of freedom. To fully address omitted variable bias, the firm-level analysis in Appendix 12.2 and 12.3 of the supplementary materials fits two-digit industry- and sector-country fixed effects, and results hold.

Empirical Analysis

Table 1 shows the estimates of the three-way interaction model as defined in expression (1). Recall, the unit of observation is the two-digit industry, and the dependent variable is the two-digit industry weighted average tax compliance. All models in Table 1 are Ordinary Least Squares (OLS), except column 6.

Column 1 reports the results for a specification with no fixed effect other than *region*. $\hat{\beta}_7$, the main coefficient of interest, moves in the expected direction. That is, conditional on low fiscal capacity, obsolete industries tend to be more tax compliant if protected. In order to account for unobserved heterogeneity, column 2 adds an indicator variable for all two-digit industries within the *mining and quarrying sector*. Resource-extractive industries tend to be oligopolistic and capital-intensive, characteristics usually associated with high lobbying capacity (Gupta and Newberry 1997). Nevertheless, the sign and magnitude of the three-way interaction $\hat{\beta}_7$ remains unchanged when I include this fixed effect.

Column 3 adds a full battery of sector-fixed effects (*mining and quarrying* being one of the eight categories). The magnitude of $\hat{\beta}_7$ is only slightly smaller than those reported in columns 1 and 2. In column 4, I check for influential outliers. The sample size is relatively small, and the three-way interaction might be driven by some abnormal value. Based on a Cook's distance test, I drop two potential outliers.[13] In the absence of potential outliers, the point estimate of the three-way interaction grows in the expected direction and gains precision.

Figure 2 plots the marginal effect of obsolescence on tax compliance as derived from column 4. To examine the effect of obsolescence on tax compliance, I fix fiscal capacity at two representative values (lower and higher quartile of its distribution on the left panel; first and ninth decile on the right panel) and allow tariff protection to vary along its observational range.[14]

Both figures show the same pattern, this being slightly exacerbated when I compare the first and ninth fiscal capacity deciles. When fiscal capacity is high (pale gray), tax compliance does not increase in obsolescence, not even if protection is granted. The marginal effect falls over the 0 line along the entire range of tariff protection. Importantly, based on the theoretical model, the null effect of protection among obsolete industries that we observe in Figure 2 is expected. That is, when fiscal capacity is high, protection is given for reasons other than tax compliance (for example, political giving).

The dark gray curve superimposed in Figure 2 represents the opposite state of the world, one of low fiscal capacity (lower quartile on the left panel, first decile on the right panel). Now, obsolescence seems to push tax compliance up as long as tariff protection is positive. When protection is sufficiently large (≥ 10 *AVE Tariff*), the effect becomes statistically significant. That is, an obsolete industry operating in a low fiscal capacity country pays higher taxes if it is protected with an AVE tariff of ten or more points. Twenty percent of the observations have values of tariff protection above this cutoff. The behavior of this marginal effect is consistent with the theoretical prediction; when fiscal capacity is low, protection of obsolete industries induces higher tax compliance. Moreover, the estimated effect of protection-induced compliance is politically meaningful. When fiscal capacity is low, an obsolete industry protected with a fifteen AVE tariff would raise its compliance by twenty-five points, all else constant.

Column 5 fits a battery of *country FE* to fully address unobserved heterogeneity across panels.[15] These are collinear with the *region FE* and with *tax staff*—meaning that two *country FE* are not estimated—but the coefficient of theoretical interest, $\hat{\beta}_7$, can be estimated. In particular, $\hat{\beta}_7$ remains positive and statistically significant in the presence of sector- and country-fixed effects, that is, keeping unobserved characteristics across sectors and countries constant.[16]

[11]Industry-level capital is a potential confounder, but it is not included in the analysis because of its high degree of missingness. To maximize the N, I stick to industry-level employment, as both variables are strongly correlated.

[12]These are the following: (1) *mining and quarrying*; (2) *food processing, beverages, and tobacco*; (3) *textiles*; (4) *wood processing*; (5) *pulp and printing*; (6) *chemicals, petroleum, rubber, and plastics*; (7) *nonmetal minerals and basic metals*; and (8) *metal products and machinery equipment*.

[13]The outliers are the Ukrainian basic metals industry and the Russian electrical machinery industry. These industries combine a relatively low level of tax compliance with a relatively high level of tariff protection. It is this combination that makes them influential, not any extreme value in any of the variables. The Cook's distances are plotted in Appendix 8 of the supplementary materials.

[14]Importantly, that both curves overlap is not a problem. They should not be compared one with another, but with respect to the 0-line.

[15]Appendix 10 of the supplementary materials goes in a different direction; instead of fitting country-fixed effects, I control for country-level economic and institutional characteristics that might simultaneously correlate with tax compliance, protection, fiscal capacity, and/or productivity.

[16]Refer to Appendix 12.3 of the supplementary materials for firm-level models of tax compliance with joint country-sector fixed effects.

Table 1. Cross-national test of protection for tax compliance (dependent variable: average tax compliance at the two-digit industry level)

		(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS	(6) HLM
$\widehat{\beta_1}$:	Low fiscal capacity	0.090	0.092	0.062	0.046	–0.172*	0.199
		(0.068)	(0.070)	(0.069)	(0.070)	(0.090)	(0.084)
$\widehat{\beta_2}$:	Tariff	–0.034**	–0.034**	–0.028**	–0.029**	–0.032***	–0.047***
		(0.013)	(0.013)	(0.013)	(0.013)	(0.010)	(0.015)
$\widehat{\beta_3}$:	Obsolete	–0.233***	–0.234***	–0.179**	–0.181**	–0.182**	–0.227**
		(0.078)	(0.079)	(0.087)	(0.086)	(0.087)	(0.092)
$\widehat{\beta_4}$:	Obsolete x tariff	0.033**	0.033**	0.028**	0.029**	0.029***	0.040***
		(0.013)	(0.013)	(0.012)	(0.013)	(0.010)	(0.015)
$\widehat{\beta_5}$:	Low fiscal capacity x tariff	–0.023**	–0.023**	–0.018*	–0.023**	–0.025***	–0.034**
		(0.010)	(0.010)	(0.010)	(0.010)	(0.008)	(0.014)
$\widehat{\beta_6}$:	Low fiscal capacity x obsolete	–0.155**	–0.156**	–0.126*	–0.119*	–0.144**	–0.165*
		(0.063)	(0.063)	(0.068)	(0.069)	(0.059)	(0.081)
$\widehat{\beta_7}$:	Low fiscal capacity x obsolete x tariff	0.020**	0.020**	0.016*	0.022**	0.020***	0.028*
		(0.009)	(0.009)	(0.009)	(0.010)	(0.007)	(0.014)
$\widehat{Z_1}$:	ln(1+Exports Share)	–0.004	–0.004	–0.002	–0.003	–0.000	–0.004
		(0.005)	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)
$\widehat{Z_1}$:	Competitors	–0.022*	–0.021*	–0.021*	–0.014	–0.022	–0.019*
		(0.011)	(0.011)	(0.011)	(0.009)	(0.013)	(0.011)
$\widehat{Z_2}$:	ln(Age)	0.008	0.008	0.007	0.007	0.010	0.008
		(0.012)	(0.012)	(0.013)	(0.012)	(0.015)	(0.013)
$\widehat{Z_3}$:	ln(Labor)	0.014**	0.014**	0.015**	0.015**	0.011*	0.011**
		(0.006)	(0.006)	(0.007)	(0.007)	(0.006)	(0.005)
$\widehat{Z_4}$:	State-owned share	–0.000	–0.000	–0.000	0.000	–0.000	–0.000
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$\widehat{Z_5}$:	ln(Population)	–0.015	–0.015	–0.015	–0.013	0.084***	–0.012
		(0.012)	(0.012)	(0.012)	(0.012)	(0.029)	(0.011)
$\widehat{Z_6}$:	Free media	–0.038	–0.037	–0.035	–0.055	0.996***	–0.046
		(0.057)	(0.058)	(0.055)	(0.050)	(0.192)	(0.081)
$\widehat{\beta_0}$:	Constant	1.391***	1.391***	1.312***	1.266***	–1.471*	1.312***
		(0.182)	(0.182)	(0.182)	(0.171)	(0.736)	(0.213)
	Region FE	Yes	Yes	Yes	Yes	Yes	Yes
	Mining FE	No	Yes	No	No	No	Yes
	Sector FE	No	No	Yes	Yes	Yes	No
	Country FE	No	No	No	No	Yes	No
	Outliers dropped	No	No	No	Yes	No	No
	Observations	378	378	378	376	378	378
	R–squared	0.189	0.190	0.203	0.220	0.381	.

Notes: (1) Country-clustered standard errors in parentheses except column 6, in which *p*-values are computed based on Satterthwate's approximations. (2) Statistical significance: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

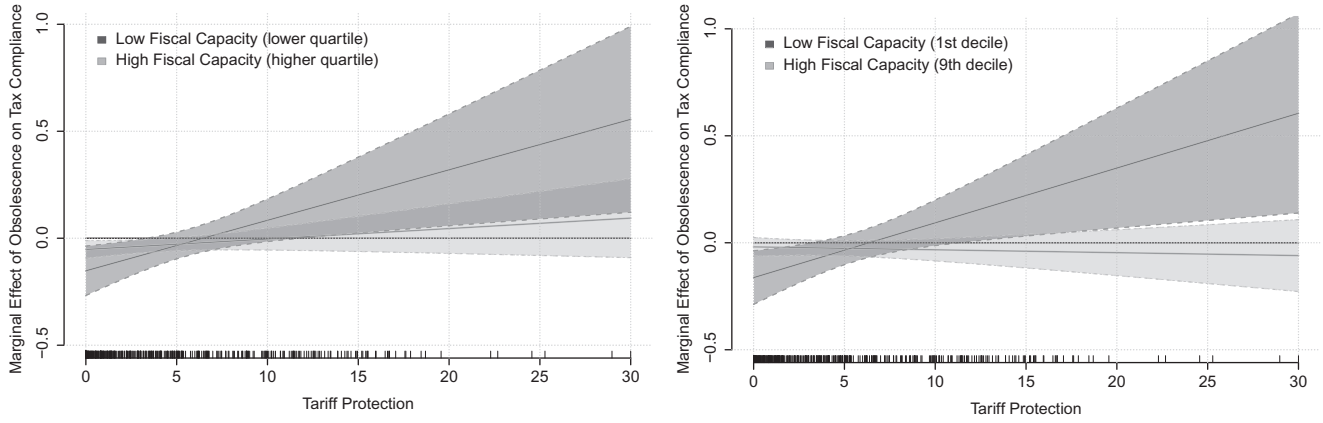

Figure 2. Marginal effect of obsolescence on tax compliance as a function of tariff protection and fiscal capacity
Notes: (1) The left panel plots marginal effects for the lower and higher fiscal capacity quartiles. (2) The right panel plots marginal effects for the first and ninth fiscal capacity decile. (3) 90 percent CI.

The OLS models in columns 1 to 5 do not account for the nested structure of the data. However, industries are nested within countries. In column 6, I run a two-level Hierarchical Linear Model (HLM) which allows the coefficient of protection and obsolescence and their interaction (all three industry-level

covariates) to vary by the level of fiscal capacity (a country-level covariate).[17] The three-way coefficient $\hat{\beta}_7$ in column 6 remains positive and statistically significant once I account for the hierarchical structure of the data. Importantly, an Anova test of the random coefficients indicates that the latter are not jointly different from zero ($\chi^2(9) = 12.7$, p.18), meaning that the OLS models are already appropriate to fit these data.[18] Figure 3 plots the three-way interaction coefficient by the level of fiscal capacity as drawn from the HLM model in column 6. Consistent with the theoretical prediction, the effect of protection among obsolete industries is positive only for sufficiently low values of fiscal capacity.

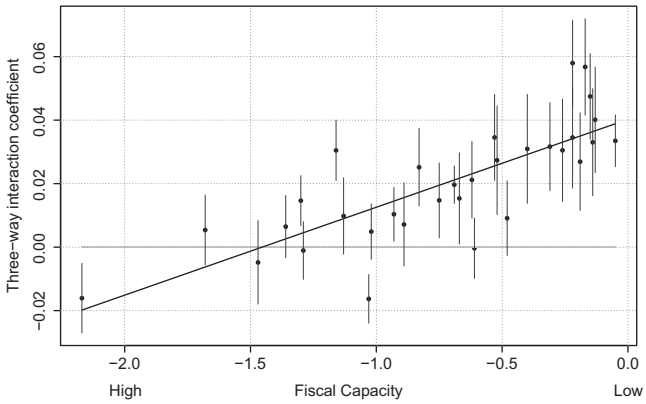

Figure 3. Three-way cross-level interaction coeffcient β_7 by level of fiscal capacity
Notes: (1) Estimates drawn from the HLM in column 6 of Table 1. (2) The horizontal axis is reversed; highest values of fiscal capacity are on the left, lowest values on the right.

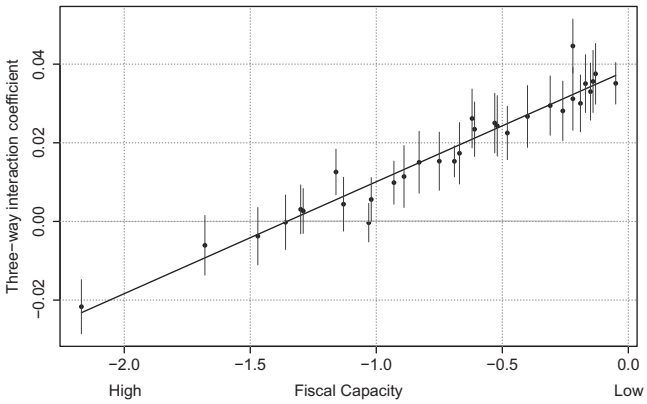

Figure 4. Three-way cross-level interaction coeffcient β_7 by level of fiscal capacity [unweighted dependent variable]
Notes: (1) Estimates drawn from the HLM in column 2 of Table 2. (2) The horizontal axis is reversed; highest values of fiscal capacity are on the left, lowest values on the right.

Robustness Checks

In this section I run various sensitivity tests to assess the robustness of results in Table 1. As a first check, I replace the *weighted* average tax compliance (the dependent variable) for its unweighted version. If larger firms are politically connected, they might have a stronger incentive to appear more tax compliant than they truly are. The unweighted industry average tax compliance, which gives the same weight to all firms irrespective of their size, should minimize this potential bias. Column 7 indicates that results with the unweighted dependent variable remain virtually unchanged. That is, the three-way interaction coefficient $\hat{\beta}_7$ is still positive and statistically significant. In column 8, still using the unweighted industry-average tax compliance as the dependent variable, I fit a random-intercept, random-slope hierarchical linear model to account for the nested data structure. Figure 4 plots the three-way interaction coefficient. If any, the unweighted model reinforces the previous findings: as fiscal capacity weakens, the effect of protection on compliance for obsolete industries turns stronger—consistent with the perils of creative destruction.

Column 9 replaces the proxy of fiscal capacity (so far, the number of tax staff per 1,000 inhabitants) with a conventional measure in the literature: the percentage of total tax revenue to GDP, or *tax ratio* (Besley and Persson 2011; Hendrix 2010). This should correct for any economy of scale in the size of the tax administration (Brown, Earle, and Gehlbach 2009). As I did earlier, I reverse this variable to account for *low fiscal capacity* (*LFC* = 1 − *tax ratio*). The results are similar to the previous specifications. When fiscal capacity is low, obsolete industries are more tax compliant if they are protected from foreign competitors.

Total taxation in column 9 might confound tax handles with nontax handles. To minimize noise, in column 10, I use the share of value-added tax (VAT) as a percentage of GDP as a proxy of fiscal capacity, or *VAT Ratio*. This tax has gained popularity over the last twenty years; if only forty-seven countries had a VAT by 1990, more than 140 have it today (Bird and Gendron 2007). The VAT is said to be a money machine because the paper trail up the production chain reduces the opportunity of evasion. Practitioners, however, suggest that an effective VAT implementation does not stop *per se* fraudulent production of fake input receipts or duplications. For this not to happen, firms must anticipate a high probability of being audited and punished in case of proven fraud (Pomeranz 2015). That is, an *effective* VAT requires an *effective* tax administration, or high fiscal capacity. Again, I reverse this variable (*LFC* = 1 − *VAT ratio*) so that higher values indicate weaker fiscal capacity. Results do not change; in countries in which VAT performance is poor, tax compliance of obsolete industries might be incentivized by granting protection from competition.

Column 11 addresses theoretically driven endogeneity between tax compliance and tariff protection; that is, based on the theoretical model, both variables increase and decrease together. Since tariff protection is interacted with two covariates, an IV strategy is hardly implementable. Alternatively, tariff protection of industry j in country k can be exogenized by using the mean tariff of industry j in all remaining ($-k$) countries. Based on Johnson (1953) and Kennan and Riezman (1988), we can expect countries to adjust tariffs based on what others do. The cooperation/retaliation logic that arises from this scholarship implies that foreign and domestic tariffs correlate. Yet, foreign tariffs are not expected to correlate with the domestic industry's characteristics included on the right-hand

[17] The algebra for the random-intercept, random-coefficient model can be found in Appendix 11 of the supplementary materials.

[18] For country k and industry j, the random errors in column 6 are as follows: $\sigma_{k(tariff)} = 0.2$, $\sigma_{k(obsolescence)} = 0.4$, $\sigma_{k(tariff)\ X\ obsolescence)} = 0.2$, $\sigma_{k(intercept)} = 0.9$, and $\sigma_{j(residual)} = 0.12$.

Table 2. Robustness test for cross-national test of protection-for-tax-compliance. Dependent variable: average tax compliance at the two-digit industry level

		(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Weighted tax compliance	No	No	Yes	Yes	Yes	Yes	Yes
	Fiscal capacity proxy	Staff	Staff	Tax Ratio	VAT Ratio	Staff	Staff	Staff
	Tariff	Domestic	Domestic	Domestic	Domestic	Foreign	Domestic	Domestic
	Democracies	Yes	Yes	Yes	Yes	Yes	Yes	No
	Autocracies	Yes	Yes	Yes	Yes	Yes	No	Yes
	Model	OLS	HLM	OLS	OLS	OLS	OLS	OLS
$\widehat{\beta_1}$:	Low fiscal capacity	0.060	0.103	0.786***	1.065	0.118	0.074	0.379
		(0.063)	(0.076)	(0.231)	(1.284)	(0.085)	(0.064)	(0.502)
$\widehat{\beta_2}$:	Tariff	–0.028**	–0.038***	0.113***	0.660***	–0.028**	–0.027*	0.072
		(0.013)	(0.012)	(0.035)	(0.231)	(0.012)	(0.014)	(0.108)
$\widehat{\beta_3}$:	Obsolete	–0.226***	–0.267***	0.332*	0.690	–0.187**	–0.157	–0.581
		(0.082)	(0.083)	(0.176)	(1.183)	(0.090)	(0.093)	(0.498)
$\widehat{\beta_4}$:	Obsolete x tariff	0.031**	0.039***	–0.089**	–0.704***	0.032**	0.027**	–0.050
		(0.014)	(0.013)	(0.041)	(0.252)	(0.012)	(0.013)	(0.110)
$\widehat{\beta_5}$:	Low fiscal capacity x tariff	–0.019*	–0.028**	–0.166***	–0.730***	–0.033***	–0.021**	0.064
		(0.010)	(0.011)	(0.052)	(0.255)	(0.012)	(0.009)	(0.112)
$\widehat{\beta_6}$:	Low fiscal capacity x obsolete	–0.156**	–0.191***	–0.523**	–0.810	–0.208**	–0.110	–0.774
		(0.070)	(0.074)	(0.251)	(1.297)	(0.088)	(0.066)	(0.565)
$\widehat{\beta_7}$:	Low fiscal capacity x obsolete x tariff	0.021*	0.028**	0.135**	0.779***	0.036***	0.020**	–0.038
		(0.011)	(0.012)	(0.059)	(0.278)	(0.012)	(0.009)	(0.114)
$\widehat{Z_1}$:	ln(1+Exports share)	–0.005	–0.004	–0.002	–0.001	–0.003	–0.008	0.006
		(0.006)	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)	(0.007)
$\widehat{Z_1}$:	Competitors	–0.021*	–0.021**	–0.022*	–0.019	–0.016	–0.018	–0.012
		(0.011)	(0.010)	(0.012)	(0.012)	(0.011)	(0.011)	(0.025)
$\widehat{Z_2}$:	ln(Age)	0.005	0.007	0.004	0.011	0.007	0.012	–0.016
		(0.013)	(0.012)	(0.015)	(0.013)	(0.013)	(0.015)	(0.026)
$\widehat{Z_3}$:	ln(Labor)	0.012*	0.007*	0.016**	0.014**	0.016**	0.016*	0.013
		(0.006)	(0.004)	(0.007)	(0.007)	(0.007)	(0.008)	(0.014)
$\widehat{Z_4}$:	State-owned share	0.000	0.000	–0.000	–0.000	–0.000	–0.000	0.001
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
$\widehat{Z_5}$:	ln(Population)	–0.019	–0.011	–0.011	–0.009	–0.012	–0.011	–0.025*
		(0.013)	(0.012)	(0.011)	(0.013)	(0.011)	(0.013)	(0.009)
$\widehat{Z_6}$:	Free media	–0.060	–0.065	0.040	0.014	–0.035	0.124*	–0.197*
		(0.052)	(0.082)	(0.047)	(0.056)	(0.059)	(0.071)	(0.081)
$\widehat{\beta_0}$:	Constant	1.413***	1.354***	0.620***	0.191	1.247***	1.125***	1.656*
		(0.196)	(0.221)	(0.169)	(1.178)	(0.166)	(0.174)	(0.626)
	Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Mining FE	No	Yes	No	No	No	No	No
	Sector FE	Yes	No	Yes	Yes	Yes	Yes	Yes
	Observations	378	378	378	378	377	308	70
	R-squared	0.240	.	0.189	0.181	0.194	0.225	0.471

Notes: (1) Country-clustered standard errors in parentheses except column 8, in which *p*-values are computed based on Satterthwate's approximations. Statistical significance: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

side of expression (1). All in all, instead of using a pure IV strategy, I employ an alternative measure of domestic protection that would potentially satisfy the exclusion restriction. This is how, even if only imperfectly, domestic tariff protection is exogenized. Accordingly, column 11 replaces domestic tariff protection for the average tariff set by all other countries for the very same industry.[19] Results are still consistent with the theoretical prediction. The estimate of the three-way interaction is still positive and statistically significant at 95 percent, meaning that, provided that fiscal capacity is low, noncompetitive industries pay higher taxes if they are granted protection from competition.

Lastly, the theoretical discussion identifies an additional condition for protection to be traded for tax abidance and not for sale, namely, a *sufficiently strong* preference alignment between the ruler and labor.[20] All but two countries in the sample (Kazakhstan and Belarus) regularly hold elections and constitutionally limit executive powers. If democratic institutions can be assumed to secure a minimum alignment between the interests of the ruler and labor, the sample should, on average, meet the minimum preference alignment condition. Nevertheless, I can further explore this requirement with the data at hand. To do that, I test the three-way interaction model for democracies and nondemocracies separately.[21] In order to classify countries in both groups, I rely on Boix, Miller, and Rosato's (2013) democracy classification. Accordingly, along with Kazakhstan and Belarus, Armenia and Russia fail to qualify as democracies.

[19]One case drops because there is a two-digit industry that only operates in one of the countries in the sample. Thus, I cannot replace its tariff protection by others.

[20]Refer to Appendix 2 of the Supplementary Materials for technical details.

[21]For the sake of interpretation, I consider that splitting the sample is preferable to a four-way interaction.

Columns 12 and 13 in Table 2 report the OLS estimates of the three-way interaction model for democracies and autocracies, respectively. The coefficient for the three-way interaction coefficient $\hat{\beta}_7$ in column 12 is positive and strongly significant for the democracy subsample. The coefficient for the nondemocracy subsample in column 13 is not statistically different from zero. The coefficient is negative, but the standard error is three times larger than the point estimate. Combined, these results are consistent with the theoretical prediction by which rulers only seek to raise revenue through protection for tax compliance if they minimally advance the interest of labor. Democratic rule seems to satisfy this requirement.

Conclusion

This article examines a fiscal mechanism by which rulers might raise tax revenue without actually investing in fiscal capacity: protection for tax compliance. When the fiscal capacity of the state is weak and incumbent producers are uncompetitive, entry barriers to technologically advanced competitors might effectively induce higher tax abidance by domestic producers. The contractarian approach to tax compliance extends the notion of quasi-voluntary compliance advanced by Levi (1988). It also identifies the logic of Schumpeterian market competition as a necessary condition for this bargain to be self-enforcing.

The results speak to two literatures. First, protection might not necessarily be for sale. When fiscal capacity is sufficiently low, *even a welfare-utility maximizing ruler* might opt for blocking entry of new competitors in the interest of higher tax compliance by incumbent producers. Importantly, protection for tax compliance is not fully incompatible with some degree of political giving. Bribes do push down the equilibrium tax rate, but, consistent with the definition of protection for tax compliance, the final rate might still remain *above* the stock of fiscal capacity. This result requires a minimum level of alignment between the rulers' and labors' preferences (for example, democratic rule) combined with two additional conditions: A Schumpeterian economy in which the incumbent producer operates an outdated technology, and a low stock of fiscal capacity. Provided that the three conditions are simultaneously met, protection may be adopted for fiscal reasons and not purely on rent-seeking grounds. Additionally, the theoretical discussion implies that optimal market regulation might be endogenous to the evolution of the stock of fiscal capacity. When states are weak, the financial gain of limiting competition might prove socially beneficial. As fiscal capacity expands, the loss of real wages resulting from protection outweighs the fiscal gain, and free trade becomes socially optimal. In other words, protection is for tax compliance *only* if fiscal capacity is low; otherwise, protection is for sale, as advanced by the canonical result in Grossman and Helpman (1994) and confirmed by McGillivray (2004), Owen (2015), and Rickard (2012), among others.

Second, my results suggest that developing economies today resort to the same fiscal strategies that developed economies used while they consolidated their state capacities: namely, pseudomercantilist practices in which key producers pay higher taxes in exchange for market protection. This finding matters for the growing literature that assesses the costs and benefits of institutions relative to the constraints that they face. From this perspective, protection for tax compliance might qualify as a "second-best" solution for states that enjoy limited fiscal capacity (Rodrik 2008). Despite its obvious inefficiencies (depressing wages and consumption), the final balance might be positive if this policy secures enough tax revenue to finance public spending in the absence of sufficient bureaucratic means. This result carries with it implications for the flourishing work on second-best institutions; Greenwald and Stiglitz (2006) argue that sustained tariff protection of infant industry might eventually change the comparative advantage of countries throughout human capital accumulation around the new sector. Similarly, Acemoglu, Aghion, and Zilibotti (2006) argue in favor of temporary entry barriers to stimulate technology adoption by incumbent producers followed by market liberalization once domestic industry is ready to compete in the open market.

Specific to the realm of taxation, the benefits of seemingly inefficient institutions are acknowledged by Charles Tilly (1975, 48), who interpret premodern tax systems-inefficient in endless dimensions—as "intermediate institutions which were crucial to the emergence of the states we know." One of those institutions was the old cabal tax farm, which laid the foundations of the modern state in England and France by changing the rulers' incentives to invest in standardization and in fiscal capacity (Johnson and Koyama 2014). In the same vein, Queralt (2015) argues that mercantilism was necessary to finance state-building in Western Europe, eventually making modern forms of taxation feasible. Similarly, Menaldo (2016) suggests that credit rationing might work as a substitute of fiscal capacity when rulers need to secure spending but lack the capacity to raise taxes by coercive means. All in all, this article contributes to the literature that questions the *one-policy-fits-all* dictum by evaluating both the costs *and* benefits of seemingly inefficient and distortionary policy.

Supplementary Information

Supplemental Information is available at www.didacqueralt.com and the *International Studies Quarterly* data archive.

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