

# Who Opposes Labor Regulation? Explaining Variation in Employers' Opinions<sup>1</sup>

Matthew Amengual  
Associate Professor  
Massachusetts Institute of Technology  
amengual@mit.edu

Salo Coslovsky  
Associate Professor  
New York University  
salo.coslovsky@nyu.edu

Duanyi Yang  
PhD Candidate  
Massachusetts Institute of Technology  
duanyi@mit.edu

*Regulation and Governance*  
Forthcoming

May 12, 2017

## **ABSTRACT**

Competing accounts of the effect of globalization on labor politics agree that firms influence regulations, but make contrasting predictions for which firms are most likely to oppose regulations. Using survey data from employers in 19,000 manufacturing firms in 82 developing countries, we examine the determinants of employers' opinions towards labor regulation. In contrast to the predictions of optimistic theories of globalization, we find that (1) firms that export are more likely to have negative opinions towards labor regulation than those that sell domestically, and (2) firms that receive foreign direct investment have similar views as firms that rely only on domestic capital. Further, we show that systematic differences in employers' opinions depend on the intensity of the competitive pressures they face and their use of skilled workers. In doing so, we provide an empirically grounded account of the heterogeneous opinions of key actors in economic policy-making in developing countries.

---

<sup>1</sup> For feedback on previous drafts, we thank Tim Bartley, Daniel Berliner, Laura Chiot, Greg Distelhorst, Erin Kelly, Tom Kochan, Layna Mosley, Ben Ross Schneider, Marc Schneiberg, and Andrew Schrank. We also thank Ruhi Bengali and Young Soo for their research assistance.

In developing countries, firms have substantial influence over labor regulations. They often lobby governments directly to obtain regulations that advance their interests (Frundt, 1998; Cook, 2010; Caraway, 2004; Murillo, 2005; Kuruvilla, Lee, & Gallagher, 2011; Berliner, Greenleaf, Lake, & Noveck, 2015b). Even when firms do not actively seek to influence regulations they have structural power, as politicians anticipate employers' needs and adjust regulations to attract investment (Haggard, Maxfield, & Schneider, 1997; Fairfield 2015). Despite a widely held agreement that the preferences of firms affect labor regulations, researchers have not analyzed how developing country employers view their own interests. In this paper, we ask: Which employers hold a negative opinion towards labor regulations in developing countries?

We organize our analysis around the competing answers to this question that derive from debates over the effects of globalization, which has created novel pressures and opportunities for firms across a range of regulatory domains, including not only labor (Schrank 2013; Toffel, Short and Ouellet 2015; Mosley 2017) but also the environment, human rights, finance, telecommunications, intellectual property, taxation, food safety, and others (Braithwaite and Drahos 2000). In all these domains, firms play a critical role in influencing the types of regulatory policies countries adopt and how they are implemented. In labor politics, some accounts of globalization suggest that employers exposed to foreign trade and footloose capital have negative views of labor regulations because these firms seek to minimize labor costs (Chan & Ross, 2003, Merk, 2014). Others, however, disagree, and challenge the view that global economic integration leads employers to resist labor regulations (Flanagan, 2006; Neumayer & De Soysa, 2006). Instead, they hold that developing country firms that receive foreign direct investment (FDI) may urge host governments to protect workers (Mosley & Uno, 2007; Mosley, 2010). Studies also suggest that firms that export are more likely to adopt employment practices

that align with the requirements of minimum labor standards (Flanagan, 2006). They predict that developing country employers exposed to globalization should be less inclined to oppose regulations. Thus, competing accounts make conflicting predictions vis-à-vis employers' opinions towards regulation, and empirical studies have not examined which predictions are correct. Are firms that engage most directly in the global economy, either because they export their goods or receive FDI, more or less likely to see labor regulations as an obstacle?

One reason why these theories make different predictions is that FDI and trade trigger mechanisms that can foster both negative and positive opinions towards regulation. On the one hand, firms that export or depend on foreign capital can face intense pressures from market competition that might compel managers to minimize labor costs in ways that conflict with the requirements of labor laws. On the other hand, these firms also tend to adopt production systems that require the use of skilled workers, who often command higher wages and better working conditions. Moreover, employers depending on skill-intensive production systems are often more interested in raising labor productivity than minimizing labor costs. As a result, these firms may be disinclined to engage in employment practices that conflict with the requirements of labor regulations, making opposition to regulations unlikely. Thus, existing theories that connect globalization to labor politics in developing countries through firm-level action are constructed upon two firm-level mechanisms, namely (1) intensity of competition, which is associated with increased antipathy towards labor regulation and (2) adoption of skill-intensive production systems, which is associated with sympathy or indifference towards labor regulation, but these theories disagree on whether globalization favors the former or the latter.

These mechanisms build upon a related literature on advanced industrial countries that provides accounts for variation in firm preferences for labor regulation—for example, by pointing to the importance of employing skilled workers in shaping firm preferences for

regulation (Estevez-Abe, Iversen, and Soskice, 2001; Wood, 2001; Martin, 2005; Swenson, 1991; Mares, 2003). Yet, scholars have not directly examined whether these theories can indeed be extended to developing countries, which have economic and political characteristics that clearly place them outside of this literature's scope conditions (Schneider 2013). For instance, if labor laws go unenforced, as they often do in much of the developing world, we may not observe any difference in opinion among employers with varying characteristics.<sup>2</sup> Are the opinions of employers in developing countries towards labor regulation sensitive to the intensity of competitive pressures they face? Do employer opinions depend on their firms' production systems, especially those that require skilled workers?

The lack of answers to fundamental questions about developing country employers' opinions in the literature has not been due to an absence of theoretical import, but rather to empirical limitations. Indeed, dominant theories highlight the ways by which economic forces lead firms to develop an interest in regulatory policies that support their competitive position, and that these interests become reflected in policy because politicians respond to the needs of capital. Yet, cross-national quantitative studies of labor politics in developing countries often rely on country-level datasets unfit for testing firm-level predictions. The literature is characterized by what Mosley and Singer (2015 p. 290) call "a disjuncture between the level of analysis of the causal mechanisms, on the one hand, and the level of analysis of the data, on the other" (see also Berliner, Greenleaf, Lake, Levi, & Noveck, 2015b). In this paper, we bridge this disjuncture by using micro-level data from a World Bank survey of approximately 19,000

---

<sup>2</sup> Similarly, developing country employers may object to labor regulations not because of the burdens of compliance but because regulations render them vulnerable to harassment by corrupt officials.

employers in formal manufacturing establishments located in 82 developing countries (an establishment is a stand-alone subunit of a firm). The survey asks employers whether labor regulations are an obstacle for the operations of their establishment. Responses to this question provide a direct measure of employers' opinion of *de facto* labor regulation.

Analyzing these data, we find that employers in manufacturing establishments that export are more likely to have a negative opinion of labor regulation than those that sell to domestic markets. Furthermore, we do not find evidence that establishments that receive foreign direct investment have a more positive opinion of labor regulation. These results are incongruent with the view that developing country subsidiaries of multinationals urge their host governments to strengthen labor regulations (Mosley, 2010, p. 53) and that exporters and foreign firms easily comply with regulations due to their superior labor practices (Flanagan, 2006; Neumayer & De Soysa, 2006). While our empirical analysis is not designed to determine whether there is a race to the top or bottom, we contribute to these debates by showing evidence that is more consistent with the microfoundations of the pessimistic accounts. To be clear, we are not arguing that “climb to the top” accounts are wrong in their predictions regarding national-level outcomes (we do not test those predictions); rather, we show that the firm-level mechanisms that these theories contend explain such outcomes are not supported by the evidence.

We extend this analysis by testing the two factors that the literature theorizes underlie employer opinions, i.e. competitive pressures and reliance on a skilled workforce. We investigate competitive pressures in two ways. First, we analyze the difference in opinion among employers whose establishments sell their output in the same municipality where they are located and, therefore, face moderate competitive pressures, with those that sell in national or international markets, and thus are more likely to face intense competitive pressures. We find that employers whose firms sell mainly in less competitive local markets have a more positive

opinion of labor regulation. Second, we use exposure to competition arising from the informal sector as an additional measure of competitive pressure. While all firms in our sample are formal, they face different types of domestic competitors; some compete exclusively against other formal firms, but others also compete against firms that flout basic regulatory requirements (i.e. informal sector). This measure parallels the undercutting competition that exporters face from countries with lax regulatory requirements. We find that formal that compete against informal ones are substantially more likely to have a negative opinion of labor regulations, providing further evidence that competitive pressure underlies opposition to labor regulation. Finally, we investigate variation in productive systems by focusing on skilled workers. We find that establishments that employ a higher proportion of skilled workers are indeed less likely to have a negative opinion of labor regulation. Those who argue that labor practices and regulations can improve under globalization appear to be correct in one key way, as reliance on skill-intensive production systems is associated with more positive opinions towards labor regulation.

This paper opens up a new dimension in the study of regulatory politics in developing countries by directly investigating the views of managers within firms. Many recent studies analyze public opinion towards economic policy, trade, and FDI in developing countries (e.g. Baker, 2005, Pandya, 2010, Carnes & Mares, 2013). Such research is key to determining whether theoretical accounts of policy-making match actors' understandings of their own interests. Although scholars have long recognized that firms, and the managers who direct them, play an important role in the politics of a variety of policy domains, few have examined the preferences of developing country firms. This oversight is surprising given that the study of firm influence on policy in advanced industry countries has involved an extensive and fruitful debate over the complex nature of firm preferences (Estevez-Abe, Iversen, & Soskice, 2001; Wood,

2001; Martin, 2005; Swenson, 1991; Mares, 2003). While we focus on labor regulation, the factors that we explore—trade, FDI, intensity of competition, and firm capabilities—are central to a wide range of regulatory domains, including the environment, product standards, taxation, food safety, and more (Garcia-Johnson 2000; Bull 2007; Genschel & Schwarz 2011; Perez-Aleman 2013; Cashore & Stone 2014; Nadvi & Raj-Reichert 2015). By uncovering the underpinnings of managers’ opinions, we contribute to the construction of more complete theories of regulatory politics in developing countries.

## **GLOBALIZATION AND EMPLOYERS’ OPINIONS**

Theoretical accounts of the effect of globalization on labor politics in developing countries point to a number of pathways through which global integration can influence regulations and practices—some pathways involve relations between states, some involve international organizations (Anner & Caraway, 2010), and still others involve firms and their influence on policy. We focus on the firm-based pathways. Employers influence labor regulation in two ways. First, when employers find regulations to be an obstacle, they lobby politicians to gain regulatory policies that they prefer, as has been shown repeatedly in developing countries (Frundt 1998; Cook, 2010; Caraway, 2004; Murillo, 2005; Kuruvilla, Lee, & Gallagher, 2011). Second, firms allocate investment and production across jurisdictions, allowing them to penalize or reward localities that adopt regulatory policies that they perceive to contravene or advance their interests (Fairfield, 2015). Crucially, this structural power does not depend on direct lobbying for desired policies—politicians may seek to attract and retain investment by catering to the (perceived) desires of management, whether firms are interested in stronger or weaker regulations (Vogel, 1995). While there are debates regarding the precise conditions under which employers are most influential, there is consensus that their preferences matter tremendously. Yet, dominant theories of labor politics make untested, and contradictory,

predictions about employers' opinions of labor regulation. In this section, we outline these predictions regarding the two components of global economic integration that have been central to the literature, trade and FDI.

We organize our discussion around the contrast between globalization “optimists” and “pessimists.” Although these terms are normatively inflected, they provide a useful shorthand to organize the literature. On one side, globalization pessimists argue that trade exposes firms to more intense competition, which forces them to minimize labor costs. According to this view, employers that export resent labor regulations, and politicians respond by eliminating (or failing to enforce) these regulations (Chan & Ross, 2003). Consistent with this view, studies have shown that that trade weakens collective labor rights (Mosley, 2010) and that countries that are more open to trade tend to neglect to enforce labor regulations (Madrid, 2003; Caraway, 2004; Cook, 2010, Stallings, 2010, Ronconi, 2012). The underlying firm-level mechanism theorized by pessimists is straightforward: 1) firms that export face intense price competition, often from firms located in countries with lax regulations; 2) pressured to reduce labor costs, they seek to adopt production and employment practices - such as excess overtime or extensive use of temporary workers - that conflict with the requirements of regulations; 3) due to discord between employers' views of their material interests and what regulations require of them, they form a negative opinion of labor regulations. By contrast, firms that produce for domestic markets, especially those that are protected from imports, face less competition and are more likely to operate on a level regulatory playing field. In sum, the pessimistic view leads to the prediction that firms that export are more likely to have a negative opinion of labor regulations than firms that do not export.

On the other side, globalization optimists have challenged the view that trade exerts downward pressures on labor practices that could lead employers to hold a negative opinion

towards labor regulation (Drezner, 2001).<sup>3</sup> These accounts tend to focus on the greater capabilities of exporting firms. In fact, a large literature shows that exporting firms tend to have higher productivity and pay higher wages than non-exporters (Van Biesebroeck, 2005; Schank, Thorsten, Schnabel, & Wagner, 2007). Drawing on this literature, optimistic accounts claim that exporting firms “offer...working conditions that are superior” to domestic firms (Flanagan 2006 p. 67). Similarly, scholars argue that “wages and labor standards tend to be higher in export-oriented sectors in developing countries” and that “higher labor standards in these [export oriented] companies are likely to be seen [by management] as necessary to produce products efficiently” (Neumayer & De Soysa, 2006, p. 35). In brief, trade optimists point out that exporters often devote more effort towards improving labor productivity than reducing labor costs. For this reason, firms that export are more likely to rely on skilled workers who command higher salaries and better working conditions, and thus they are unlikely to see labor regulations as an obstacle.

Global economic integration entails not only trade but also foreign direct investment (FDI), an equity investment by individuals or companies from one country in a firm operating in another country. Once again, pessimistic and optimistic accounts disagree on the effects of FDI on host-country employers’ opinions. Pessimistic arguments hold that foreign investors are fickle and ready to sell their stakes in any one location so they can move their capital to other countries that promise lower production costs and higher returns. Merk (2014), for example,

---

<sup>3</sup> Two papers have argued that the effects of trade on labor rights are contingent on trading partners (Greenhill et al., 2009; Adolph Quince & Prakash, 2017). Because of data limitations, we can only test the hypotheses implied by these theories on a subsample of employers from Latin America in 2006. Our analysis, reported on Table A9 of the Appendix, shows results congruent with our main findings.

finds that large multinational apparel manufacturers, many of them headquartered in Korea, Taiwan, and Hong Kong, locate subsidiaries throughout Asia and Latin America and use the threat of relocation to press for lenient labor regulations. Congruent with this case study research, Payton & Woo (2014) present a formal model and quantitative evidence showing that FDI is attracted to countries with weaker labor laws.<sup>4</sup> According to this view, firms that receive FDI strive to reduce their production costs, including labor costs, to please their foreign investors. Their labor cost-reduction efforts increase the likelihood that plant-level managers will seek employment practices that conflict with labor regulations. Thus, just as with the trade pessimists, the key mechanism in these theories is competitive pressure, which leads employers in firms that receive FDI to be more likely to perceive labor regulations as an obstacle.<sup>5</sup>

Not all agree that employers in foreign-invested firms hold negative opinions of labor regulations that would serve as the basis of actions that erode labor law. Rather, cross-national studies find that FDI has a positive impact on collective labor laws and rights (Mosley & Uno, 2007; Mosley, 2010). Optimistic theories hold that firms play a key role in making inflows of FDI translate into stronger labor practices and regulations for many of the same reasons as the trade optimists. Foreign firms are understood to be more productive, demand higher skilled labor, and pay higher wages than their domestic counterparts (Pandya, 2010). As foreign

---

<sup>4</sup> They also argue, however, that once investments are made, governments may have incentives to improve enforcement. Note also that this theory focuses on the decisions of investors, rather than managers in the host countries. It may be that investors seek countries with weaker labor laws but that managers in the host-country are supportive of regulatory policies.

<sup>5</sup> Pessimists also point out that foreign firms rarely diffuse production practices that entail the use of more skilled workers, as is sometimes suggested by optimistic theories of globalization. For example, foreign-owned firms in Lesotho's garment industry did not adopt production systems that require worker training beyond the lowest levels of skills (Lall 2005).

investors are attracted to locations with skilled workers (as opposed to lower labor costs), they tend to support workers' rights because rights "enhance [...] the opportunity for the host country's citizenry to attain higher levels of education and training" (Blanton & Blanton 2007, p. 146). Similarly, Mosley and Uno (2007, p. 925) argue that local subsidiaries of foreign firms "urge governments directly to improve the rule of law, [and] protect the vulnerable." Mosley and Uno also suggest that multinationals "bring the best practices for workers' rights to host countries," which enhances their capabilities and drives laws and practices upwards (p. 925). Additionally, Mosley (2010, p. 53) argues that foreign-owned firms "are competing with local firms to hire skilled workers" and "may want to avoid the competitive disadvantage that would result from a reputation for repressing labor rights." Furthermore, "even in sectors with mostly unskilled workers, many [foreign] firms may believe that workers whose core rights are protected (and whose working conditions meet minimum standards) are more likely to remain on the job and work efficiently" (p. 54). Thus, the explanation for why FDI is associated with stronger regulatory protections implies that, all else equal, employers in foreign-invested firms should view labor regulations more favorably than counterparts in firms owned exclusively by domestic investors.<sup>6</sup> Just like the trade optimists, FDI optimists argue that foreign-invested firms put more emphasis on increasing workers' productivity rather than minimizing labor costs. This emphasis reduces conflict between the interests of the firm and the mandates of regulation, and thus increases managers' acceptance of labor regulations.

---

<sup>6</sup> These theories also suggest that managers in "home countries" (i.e. those where capital originates) may also have more positive views towards labor regulation, but we do not empirically examine these actors and instead focus on the host-country employers.

In sum, the literature on globalization suggests two sets of competing hypotheses pertaining to employers' opinion towards labor regulations:

*H1: All else equal, employers in firms that export (sell to the domestic market) are more likely to have a negative (positive) opinion of labor regulations.*

*H2: All else equal, employers in firms that receive FDI (domestically-owned firms) are more likely to have negative (positive) opinion of labor regulations.*

To be clear, testing these hypotheses will not resolve the debate between pessimists (i.e. “race to the bottom”) and optimists (i.e. “climb to the top”). Rather, our hypotheses address one particular pathway or mechanism through which trade and FDI can influence domestic politics: through the opinions of employers. This pathway is important because firm preferences are central to all of the above theories—we cannot expect that firms urge governments to enact or enforce more protective regulations if they have a negative opinion towards regulation, just as we would not expect firms to undermine regulations if they have a positive or neutral opinion of them.

## **COMPETITION AND SKILLS**

Both optimistic and pessimistic theories of globalization and labor politics in developing countries rely on a shared understanding that employers' preferences for labor regulation derive, in part, from 1) their exposure to competitive pressures and 2) the relationship between the particular production systems they use, such as those that require skilled workers, and the requirements of labor regulations. Thus, while scholars disagree on the consequences of trade and FDI for labor politics, they implicitly accept that these two forces underlie differences in employers' preferences. Although there have been studies of firm preferences in Europe and United States, we are not aware of studies that empirically substantiate the mechanisms implied by these theories in developing countries that clearly lie outside of their scope conditions. Thus,

we ask: in developing countries, are employers who face more intense competitive pressures more likely to have a negative opinion of labor regulation? And are employers in firms that adopt production systems that require the use of skilled workers less likely to have a negative opinion of labor regulation?

First, as described above, the theories tying globalization to employer antipathy for labor regulations emphasize the pressures from intense competition. Quite simply, firms exposed to more intense competition are motivated to reduce costs, including those associated with labor, and as a result their employers are more likely to have a negative view of labor regulations that infringe on their abilities to cut labor costs. While globalization pessimists focus on variation in competitive pressures due to trade and FDI, competitive pressures can arise from a wider variety of sources that, if this theory is correct, should also influence employers' views. Ideally, intensity of competition should be measured through the number of competitors a firm faces in a given market, as well as their average productivity. This type of data rarely exists for large samples of firms in developing countries, so we must look for proxies. One such proxy for the intensity of competition used by trade economists is the size of the market in which a firm competes; as Melitz and Ottaviano argue, both "market size and trade affect the toughness of competition" (2008, p 295). The logic is the following: just as the international market harbors a larger population of very productive firms than national markets, larger national markets also harbor a larger population of very productive firms than smaller subnational markets. If the intensity of competition varies with the size of the market in which a firm competes, those firms that compete for customers mainly in subnational markets will be - on average and all else equal - less likely to have a negative opinion of labor regulations than firms that compete for customers in national or international markets. Naturally, this parallel is approximate and it fails to capture some features that are particular to international markets. For instance, differences in regulatory

policies within countries are likely to be smaller than differences between countries.<sup>7</sup> Therefore, size of the domestic market is a conservative indicator of the intensity of competition, in the sense that it captures a milder form of competition compared with that which stems from globalization.

In addition, in developing countries, a particularly important source of competitive pressure not captured by the size of the market comes from the informal sector. Informality has many dimensions, but a critical feature is that informal firms are largely unconstrained by regulations, rendering this form of competition conceptually similar to the type of undercutting competition envisioned by some globalization pessimists (in which firms face competitors from jurisdictions with lax standards). Indeed, when enforcement is weak and compliance uneven, firms compete with other firms that do not meet the same regulatory standards even if they are located in the same jurisdiction. Most developing countries have large informal sectors and many workers lack formal employment protections;<sup>8</sup> in our sample of formal manufacturing establishments, 56% of employers report that they compete against firms in the informal sector. Those formal firms that contend with informal competition can be expected to face greater pressure to cut labor costs and, as result, may be more likely to hold a negative opinion towards regulations. In short, while the globalization literature posits that international competition from

---

<sup>7</sup> There are other possible exceptions. First, a firm that can benefit from economies of scale may be more productive when selling in a larger market than in a smaller one. In these instances, a firm that sells in a national market might face less competition than a firm that sells the exact same product in a smaller local market. Second, competition from a jurisdiction with high standards can lead to a “California Effect,” in which some firms prefer stronger regulations (Vogel 1995). Although this theory has been extended to labor regulations in international trade (Greenhill et al 2009), the original argument refers to product standards and requires firms to seek to enter a wealthy political jurisdiction that promotes strict standards. Thus, labor politics in the domestic markets of developing countries is squarely outside the scope conditions for this theory.

<sup>8</sup> ILO. “Statistical update on employment in the informal economy” 2012

firms located in countries with lax regulations fuels the race to the bottom, domestically, the informal sector can play a similar role. In sum, to test the mechanism that competitive pressures underlie opposition to labor regulations independently of trade and FDI, we examine the relationship between employers' opinions and the size (i.e. geographic scope) of firms' product markets as well as competition from the informal sector.

By contrast, the optimistic view of globalization is underpinned, in part, by the idea that firms that export and have foreign capital tend to adopt production systems that prioritize more productive workers rather than lower labor costs. These firms are often distinguished by the reliance on skilled workers; for example, Mosley argues that “the bulk of MNCs are concerned with the hiring and retention of skilled workers,” as opposed to the sole pursuit of lower labor costs (2010, p 53). Consistent with the literature on advanced industrial countries, firms that rely on skilled workers may support regulations that allow employers to coordinate with employees so they can jointly invest and benefit from skills (Wood, 2001).<sup>9</sup> Globalization optimists also suggest two pathways by which reliance on skill-intensive production systems may influence employer preferences: (1) the need to retain and attract skilled workers and (2) an alignment between the employment practices adopted by a firm and the requirements set forth by labor legislation.

Consider the example of minimum wage regulations. For firms that rely on low-cost, unskilled workers, wage floors are likely to conflict with their preferred employment practices, as they do not have to attract and retain skilled workers. By contrast, employers who rely on

---

<sup>9</sup> Schneider (2013, p.106) has questioned whether labor regulation allows skilled workers and firms to coordinate in Latin America.

skilled workers are likely to offer higher wages to attract and retain these workers, rendering minimum wages less of a constraint. Another example can be found in legal requirements that limit the use of short-term labor contracts and require severance pay upon dismissal. If given free reign, many employers would not provide workers with long-term contracts that reduce managers' authority to hire and fire, and would not pay severance when they reduce the size of their workforces. Indeed, employers have resisted these regulations in Brazil (Pires 2008), China (Kuruville, Lee, & Gallagher, 2011), and Indonesia (Amengual & Chirot, 2016). Yet, firms that employ workers who learn skills on the job should incur distinct costs from these regulations than those that do not. Quite simply, replacing workers who have acquired skills is likely to reduce productivity, giving employers less of an interest on short-term contracts. Moreover, if firms seek to maintain a stable workforce, severance pay is less likely to be a substantial cost, as employers do not need to lay off workers and hire new ones as often. For these reasons, the more a firm relies on skilled workers, the less likely it should be to oppose labor regulations.

Qualitative studies of labor conditions in different industries and localities provide further evidence that reliance on skill-intensive production systems reduces the likelihood that employers in developing countries will object to the mandates of labor regulations. One example comes from a study of two Mexican exporting garment factories (Locke & Romis, 2010). One of these factories employed skilled workers as part of a bundle of practices designed to improve productivity, such as job rotation. This factory sought to retain and reward its skilled workers for productivity and thus it was able to meet minimum labor standards with ease. In contrast, the other factory utilized low-skilled workers in a Taylorist system of production. Its use of low-skilled workers performing simple tasks decreased the cost of turnover and channeled managers' attention towards ways to minimize labor costs. Consequently, managers preferred human

resources practices clashed with labor regulations, which transformed compliance into a daily struggle and fueled resentment against labor regulations.

Another example can be found in sugar and ethanol manufacturers in Brazil. Historically, most Brazilian sugar and ethanol mills hired a new set of unskilled production workers at the beginning of each harvest season, assigned them to either a day or night shift of 12 hours without interruption, and laid everyone off six or seven months later, once all the available sugarcane had been processed. Naturally, these production practices clashed with many provisions of Brazilian labor law, including those pertaining to maximum allowed overtime, mandatory weekly rest, and safeguards against hazardous work. These firms also incurred significant costs to register all workers at the beginning of the season and pay mandatory severance packages later on. Not surprisingly, they either skirted the law (and faced the risk of punishment), or tried to comply and incurred extremely high costs without any offsetting benefit, such as higher productivity. In either case, managers' reliance on unskilled workers set them on a collision course with the legislation and fueled bitter opposition to labor laws (Coslovsky, 2014). Over time, some of these same firms adopted skill-intensive production systems that entailed higher wages and better working conditions that were naturally aligned with the mandates of labor regulations. Thus, firms employing skilled workers became less likely to find minimum wages or basic health and safety requirements onerous than those employing unskilled workers.

In sum, both globalization optimists and pessimists presume that intensity of competition and the adoption of skill-intensive production systems underlie employers' preferences for labor regulation. Yet, these relationships have not been tested in developing countries, and this omission hinders our understanding of the factors that shape employers' opinions. Thus, we advance two additional hypotheses:

*H3: All else equal, employers facing more intense competition, from the informal sector or because they operate in larger markets, are more likely to have a negative opinion of labor regulation.*

*H4: All else equal, employers in firms whose workforce include a higher proportion of skilled workers are more likely to have a positive opinion towards labor regulation.*

## **DATA AND ANALYSIS**

To empirically examine, on one side, the relationship between trade, FDI, intensity of competition, and skills, and on the other, employers' views of labor regulation, we draw upon the World Bank's Enterprise Surveys (ES).<sup>10</sup> In over 100 countries, these surveys are administered to a stratified random sample that is representative of private formal firms.<sup>11</sup> To complete the survey, enumerators engage in face-to-face interviews with managing directors, accountants, human resource managers and other relevant company staff. At times, the enumerators interview more than one person to have a specialist for each area of the establishment. For simplicity's sake, we refer to respondents as "employers" or "managers."<sup>12</sup>

---

<sup>10</sup> The ES is just beginning to be used by political scientists. For another application of these data, see Berliner and Prakash 2014. The data have been used by economists, such as in La Porta and Shleifer (2014) who combine it with surveys of informal firms.

<sup>11</sup> The ES selects establishments in regions that contain the majority of economic activity. The sampling procedure is as follows: first, enumerators identify all formal enterprises that have five or more employees, make independent financial decisions, have their own management, and control their payroll. Next, enumerators group all eligible firms into homogenous strata according to firm size, sector, and location. Finally, they randomly select enterprises from within each stratum. In most countries, most firms are of small and medium size but the large firms employ the majority of the people. To compensate for this difference, the ES oversamples large firms. When establishments refuse to participate or go out of business after they are selected, they are replaced with randomly selected substitutes from the same stratum.

<sup>12</sup> Establishment-level managers are appropriate respondents because they are attuned to the challenges of compliance. However, the views of managers within firms can be heterogeneous, and there may be differences between the owners and managers. Such heterogeneity could result in firms sending contradictory signals to governments regarding regulation, and we may expect differences to be particularly pronounced for foreign-owned firms. We do not test predictions concerning the views of investors. Unpacking the diversity of opinions between owners and managers, as well as within establishments, is beyond the scope of this article (See Gray & Silbey 2014).

The ES contains data on “establishments,” which are distinct physical and administrative units of a firm (a single firm may have more than one establishment). While the ES covers both the service and manufacturing sectors, only the module designed for manufacturing establishments asks key questions related to worker skills. For this reason, we restrict our analysis to formal establishments in the manufacturing sector. This focus is appropriate because the theories being examined suggest that the forces of globalization, both positive and negative, are particularly strong among those that produce tradable goods. The focus on formal establishments is also propitious, as it assures that respondents are visible to the state and comply with some regulations (at the very least they are registered as legal entities). After eliminating observations with missing data, we obtain a cross-section of approximately 19,000 employers located in 82 developing countries surveyed in or around the year 2010. We chose 2010 as our focal year because it allows us to maximize the number of observations while keeping the data recent.<sup>13</sup> To make sure that our results are not an artifact of the time period we study (during the Great Recession), we replicate the main analysis using data from earlier waves of the survey conducted in or around the year 2004 (see Table A8).

To measure employers’ view of regulation, we use responses to the survey question: “*To what degree are labor regulations an obstacle to the current operations of this establishment?*”

Permissible answers are: No Obstacle (0), Minor Obstacle (1), Moderate Obstacle (2), Major

---

<sup>13</sup> ES data are available over a number of years with repeated surveys for some countries, but there is no record of whether a firm was surveyed more than once as part of a specific country panel. As a result, the dataset is not a firm-level panel, but rather a repeated cross-section. To convert the repeated cross-section into a simple cross-section, we chose the focal year or the most recent survey wave conducted in that country, immediately before or immediately after the focal year.

Obstacle (3), or Very Severe (4). We use this original coding in our main analyses (in the Appendix Table A4 we report generalized ordered logit models showing the results at various cutoff points). Further, and as reported on the section devoted to robustness checks, we also analyzed an additional survey question that asks employers to identify the most important obstacle they face from a list of 15 possibilities.

Despite the common assumption that employers universally oppose labor regulations, 41% of managers indicate that labor regulations are not an obstacle for their establishment. An equally large proportion of employers believe that labor regulations are either a “Minor” (22%) or “Moderate” (21%) obstacle. A comparatively small portion of employers describes labor regulations as a “Major” (10%) or “Very Severe” (5%) obstacle for their establishment. We do not take these answers as indicative of the labor conditions faced by employees of each surveyed establishment—managers that are forced to provide their workers with better labor conditions, in fact, might be more likely to resent regulations than managers who can act as they please. Nor does this measure capture political action or lobbying against regulations. Rather, we take a narrower reading, and interpret employers’ answer that labor regulation creates obstacles for the operations of their establishment to mean that they hold negative opinions of regulations, which are important given the acceptance in the literature that firms influence policy, in part, to reduce the regulatory obstacles they face.

An important aspect of this measure is that the survey question is phrased in a way that elicits opinion of *de facto* labor regulations, as faced by employers in a particular industry and country. Therefore, we do not expect that an employer who operates in a context of permissive laws or lax enforcement will report that regulations are an obstacle based purely on ideological grounds. By contrast, an employer who is forced to comply against his or her will may be more likely to see regulations as an obstacle. The sensitivity of our dependent variable to the lived

experience of respondents is an advantage of these data, as in much of the world there are substantial differences between *de jure* and *de facto* regulations (Caraway, 2009). The alternative, of asking employers to articulate their general preferences towards regulation or deregulation unmoored from their lived experiences would rely on respondents' ability to anticipate what it would be like to operate under distinct regulatory conditions. By contrast, the contextualized nature of this question provides a measure of employers' views in light of their experiences, making it ideal for adjudicating among the competing theoretical accounts that tie economic conditions to employers' understanding of their own interests.

To interrogate the hypotheses outlined above, we draw on a series of variables. *Export* measures the percentage of output that the establishment exports. *FDI* measures the percentage of the firm owned by foreign investors.<sup>14</sup> We use two variables to measure the competitive pressure faced by an establishment. The variable *Competition from Informal Sector* equals one if the employer self-reports that his or her establishment competes against informal firms. The variable *Non-Local Product* equals zero if the employer reports that the "main market" for his or her establishment's products is the same municipality where the establishment is located, or one, if the main market is either national or international. To measure an establishment's reliance on skilled workers, we use the percentage of production workers (*Skilled Worker*) described by management as having "some special knowledge or (usually acquired) ability in their work."<sup>15</sup>

---

<sup>14</sup> As the differences between foreign firms and local firms / exporters and non-exporters is often treated more as a matter of kind than degree, we also created dummy variables for FDI and export with distinct cutoffs (>0%, >50%). The results of all the analyses are substantively unchanged.

<sup>15</sup> Unskilled production workers are those who do not have "special training, education, or skill to perform their job."

This variable provides a contextualized measure of skills by drawing on the managers' perception of what counts as special knowledge or ability.

We also include a series of controls for variables that can potentially confound our analysis. First, we control for *Establishment Size*, measured as the total number of full-time employees (thousands of permanent and temporary workers), as larger establishments may be more likely to attract enforcement or have more sophisticated human resource practices. Second, we control for *Labor Intensity* of production, measured as labor cost divided by total production cost,<sup>16</sup> as labor intensive firms may be particularly sensitive to any costs imposed by labor regulations.<sup>17</sup> Third, we control for the percentage of workers with permanent contracts, *Permanent*, as an indicator of human resource practices; those establishments that choose to employ more permanent workers are more exposed to the costs of regulations, but may have done so voluntarily to minimize turnover, which may render them less likely to object to labor laws.<sup>18</sup> Fourth, some managers might just complain about everything; if that is the case, our measure of employers' views towards labor regulation will capture general negativity rather than anything particular about labor regulation. Fortunately, the ES dataset contains twelve separate but similarly worded questions about other obstacles—such as inadequate infrastructure, corruption, and taxes—that allow us to construct a baseline measure (*Average Obstacles*) of how much each employer complains overall.

---

<sup>16</sup> Labor cost includes wages, salaries, bonuses, etc. paid in previous fiscal year. Total production cost is the sum of costs of labor, electricity, communication, rent, raw materials and intermediate goods used in production, fuel, transportation, water, finished goods/materials bought to resell, rental of machinery, and other costs of production.

<sup>17</sup> See the citations within Mosley & Uno 2007, p. 941. See also Murillo 2005.

<sup>18</sup> Permanent workers are “paid employees that are contracted for a term of one or more fiscal years and/or have a guaranteed renewal of their employment contract and that work up to 8 or more hours per day.”

To analyze these data, we use models with country fixed effects and dummy variables for eleven distinct manufacturing sectors,<sup>19</sup> allowing us to focus on the establishment level variables that are central to the theoretical debates.<sup>20</sup> In subsequent models, we include city fixed effects to control for differences in local labor markets and regulatory enforcement, as well as product fixed effects to address more fine-grained differences in what each establishment produces. While cross-sectional analyses do not support causal claims, the theoretical predictions that we examine do not imply unidirectional causation. Rather, the theories we test predict that firms with particular characteristics differ systematically in their opinion towards labor regulation. Optimistic theories of globalization and labor politics predict that firms that receive FDI will have a more positive opinion of regulation than firms that rely exclusively on domestic capital, either because employers become more supportive of regulation after they receive FDI, or because FDI flows towards firms that support regulation. Similarly, pessimistic theories of globalization predict that firms that export will have a more negative opinion of regulation than firms that sell mostly in the domestic market. Again, this relationship may emerge because employers who relentlessly try to decrease labor costs are more likely to export, or because exporters become especially sensitive to the burdens of regulation. In absence of an experimental design or a credible instrument, identifying the direction of causation is impossible and, more to the point, not our present goal.

---

<sup>19</sup> The sectors are: food; textiles; garments; chemicals; plastic & rubber; non-metallic mineral products; basic metals; fabricated metal products; machinery & equipment; electronics; and other manufacturing.

<sup>20</sup> In the Appendix we include analyses of multilevel models that include country-level covariates to check whether the establishment-level variation is substantively important when compared to cross-country variation. The results are congruent with the fixed-effects models.

## *Analysis*

Table 1 contains a series of OLS models with *Obstacle* as the dependent variable and with standard errors clustered at the city/town level.<sup>21</sup> We first show simple models that only include one explanatory variable along with country, year, and industry dummies (Models 1-5). These preliminary analyses permit an assessment of whether the findings from the more complete models are robust to parsimonious specifications. Reassuringly, coefficients of key variables in the parsimonious models are consistent with those of the more complete models, with the exception of FDI. To discuss the results in detail, we draw on our preferred specification, Model 6, that includes basic controls.

We find that employers whose establishments export more are substantially and statistically significantly more likely to perceive labor regulations as an obstacle (H1). All else equal, moving from not exporting at all to exporting all output is associated with a 0.2 increase in the *Obstacle* variable. This coefficient is equal to 17% of the mean of the dependent variable, revealing a substantive difference between firms that export and those that do not. This finding is consistent with the pessimists' prediction that employers exposed to global competition are more resistant to labor regulation.<sup>22</sup> Turning to FDI, once we include controls, FDI is not associated with employers' opinions. Therefore, we do not find evidence for either the positive

---

<sup>21</sup> The results are substantively similar with clustering at the country level. They are also similar when using an ordered logit model, but we choose not to present these results because the parallel regression assumption is violated. A Brant test for proportionality of odds yields Chi-2 of 807.56,  $p < 0.01$  for a modified version of Model 6 (without country fixed effects). In the Appendix, Table A4, we include a Generalized Ordered Logit model that is appropriate for these data. The results are consistent with the OLS models.

<sup>22</sup> Table A9 in the Appendix disaggregates establishments by the destination of their exports for a subset of the sample for which data are available. Employers in establishments that export to the United States and Europe are also more likely to view labor regulation as an obstacle compared with firms that do not export.

association predicted by the optimists or the negative one suggested by pessimists (H2). Still, this finding casts doubt on a critical mechanism that could account for the “climb to the top” dynamic between FDI and labor regulations observed by optimistic accounts of globalization. Specifically, if employers in foreign-invested firms were bringing “best practices” of labor rights that align with the prescriptions of regulation, these managers should be less likely to view regulation as an obstacle compared with employers of domestically-owned firms.

To probe the relationship between FDI and managers’ opinions further, we separate foreign-owned firms into host “market oriented” and “export oriented” categories (Pandya 2010). Pessimistic theories tend to emphasize export oriented foreign-owned firms, such as a Korean-owned garment producer located in Bangladesh and that sells its output in Europe. These firms seek locations where production costs are low. By contrast, optimistic theories tend to emphasize foreign-owned firms that are oriented towards host markets, such as a German-owned auto factory in Brazil that sells its cars to Brazilians. These firms seek locations where they find favorable demand and not (only) low costs of production. To test whether employers in these different types of firm hold different opinions towards labor regulation, we create dummy variables that separate establishments into four groups: foreign-invested establishments that export (*FDI Exporters*), foreign-invested establishments that sell domestically (*FDI Domestic Sales*), domestically-owned establishments that export (*Domestic Owned Exporter*), and domestically-owned firms that sell domestically (the omitted category). The results (Model 9) show that employers who sell domestically have similar opinions independent on whether they are foreign or domestically-owned. By contrast, the coefficients on all exporters, independent of ownership structure, are positive and statistically significant. Thus, even if we focus our attention on host market oriented firms, we do not find the relationships regarding employers’ views predicted by the optimists.

We now turn to measures of competition that rely on domestic differences in the contexts in which firms operate. We find evidence that employers in formal firms who compete with informal ones are more likely to perceive labor regulation as an obstacle (H3). This effect size, 0.21, is 18% of the mean of the dependent variable. The magnitude is similar to that of moving from not exporting at all to exporting all production, indicating that uneven playing fields are important determinants of employers' views in developing countries. In addition, employers whose establishments sell in national markets are more likely to find labor regulation an obstacle than those that sell exclusively in their own municipality. While the effect size is small (only 6% of the mean of the dependent variable), this result provides further support for our finding that competitive pressures underlie negative opinions of labor regulation (H3). In the Appendix (Table A7) we use the number of competitors as an alternative measure of the intensity of competition and find similar results.

Finally, we turn to skills. The coefficient on the percentage of skilled workers employed by an establishment is negative and statistically significant (H4). The difference of having no skilled workers or all skilled workers is associated with a similar magnitude of effect as exporting, but in the opposite direction—the coefficient is -0.21, equal to 18% of the mean of the dependent variable. This finding suggests that optimistic theories of globalization are correct to presume that employers whose establishments employ skilled workers are less likely to have a negative opinion of labor regulation, even in developing countries.

Turning to the control variables, we find that employers in larger establishments are more likely to see labor regulations as an obstacle, which is congruent with the idea that bigger firms attract the attention of regulators and face more pressure to comply. Employers that hire more workers through permanent contracts are less likely to perceive regulation as an obstacle, which is also consistent with the view that establishments adopting human resource practices that

emphasize retaining workers rather than reducing labor costs are less likely to view labor law negatively. Somewhat surprisingly, labor intensity of production is not positively associated with viewing labor regulation as an obstacle. This finding contradicts the conventional view that establishments with the greatest labor costs are more likely to have a negative opinion of labor regulation.<sup>23</sup> Finally, in Model 8, we include the *Average Obstacles* variable, which measures general negativity and is highly correlated with our dependent variable. Reassuringly, the coefficients on our key explanatory variables remain substantively unchanged. This suggests that we are uncovering relationships specific to employers' opinions of labor regulation, rather than employers' overall propensity to complain.

**\*\*\* INSERT TABLE 1 HERE \*\*\***

#### *Robustness Checks*

One advantage of our dataset is that it allows us to focus on within-country differences among establishments and avoid using roughly measured country-level indicators of regulatory, political, and economic conditions that underpin much of the literature.<sup>24</sup> However, conditions within countries can vary across a number of dimensions that could potentially confound our analyses. To further control for this variation, we introduce OLS models with additional fixed effects in Table 2.<sup>25</sup> First, cities and regions vary tremendously within countries. Some regions may have more skilled or unskilled laborers, others might host more active or diligent regulatory

---

<sup>23</sup> It is congruent with trends in the garment industry in which employers temper their pursuit for low labor costs with a preference for particular types of labor control regime (Anner 2015).

<sup>24</sup> In the appendix, we draw on country-level data to use multi-level models to check whether establishment-level differences are important relative to cross-national differences. Our results confirm that they are.

<sup>25</sup> We also undertook the same bivariate analyses as in Table 1 with the different combinations of fixed-effects. The results are consistent with the complete models.

enforcement agencies, and labor laws (such as minimum wage) can vary by region as well. Therefore, in Model 10, we include fixed-effects for each of the 331 towns/cities where establishments are located. Second, while in previous models we include country and industry dummies, in Models 11 and 12, we report the results of saturated models that include a dummy variable for each industry-country combination and industry-town/city combination. In these models, we control for confounding factors arising from different sectors in different locations having varying underlying characteristics. Finally, Model 13 includes a dummy variable for the main product of the establishment, coded using over 250 product categories (ISIC 4 digits). This variable provides an even more fine-grained distinction across establishments than the 11 industry codes we used before; in many instances, product codes distinguish establishments that produce finished goods from those that produce intermediate products within the same broad industry, which is important because an establishment that sells finished goods might face different competitive pressures than an establishment that sells intermediate products. For example, this variable allows us to distinguish establishments that manufacture car parts from those that assemble cars.<sup>26</sup> Across all these models, we find that the coefficients of all key variables remain statistically significant and in the expected direction.

**\*\*\*\* INSERT TABLE 2 HERE \*\*\*\***

As an additional robustness check, we construct an alternative measure of employers' views of labor regulation based on a separate survey question. When administering the survey,

---

<sup>26</sup> Unfortunately, the use of ISIC-4 product codes does not solve this matter entirely as they do not split all relevant categories (e.g. computer assembly versus parts manufacture), and therefore it does not allow us to locate the tier of all establishments in their respective value chains. For the full classification, see: <http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=17>

enumerators asked employers to consider fifteen “elements of the business environment” and to select the one that “currently represents the biggest obstacle faced by this establishment.” Using the responses to this question, we create a dichotomous variable (*Labor Most*) that equals one if the manager indicates that “labor regulation” is the biggest obstacle affecting the operation of his or her establishment.<sup>27</sup> This question is advantageous because it captures the relative importance of labor regulation compared to other potential obstacles, such as corruption, trade regulations, and taxes.<sup>28</sup> Only 4.5% of managers in our sample see labor regulation as their most serious obstacle. When the event rate is low, the conventional maximum likelihood method is vulnerable to small sample bias; therefore, we run standard OLS regressions, with fixed effects for country, industry, and year.<sup>29</sup> Table 3 reports the results of these analyses. First, with one exception, these parsimonious analyses reveal the same associations between all of our explanatory variables of interest and *Labor Most* as those in Table 1, thus providing additional support for the findings discussed above. The one exception concerns informal competition, as it has a statistically significant coefficient in the opposite direction as the analysis above. We attribute this reversal to the fact that employers could choose “Practices of competitors in the informal sector” as the most serious obstacle that they face. This option is directly related to competition with informal firms; reasonably, managers who reported competing with the informal sector chose this response at very high rates, thereby reducing the likelihood that they

---

<sup>27</sup> The ES dataset only records the most serious obstacle reported by each respondent. Therefore, we cannot identify respondents who would have selected labor regulations as one of the top three, or top five, or any other combination.

<sup>28</sup> The possible answers are: access to finance, access to land, business licensing and permits, corruption, courts, crime theft and disorder, customs and trade regulations, electricity, inadequately educated workforce, labor regulations, political instability, practices of competitors in the informal sector, tax administration, tax rates, transportation of goods supplies and inputs.

<sup>29</sup> The results are unchanged when using a rare events logit model.

place labor regulation at the top of the list.<sup>30</sup> When we add the controls in Model 19, only the variables that have the strongest association with *Obstacles* in the analyses in Tables 1, 2 and 3—*Skilled Worker* and *Export*—remain statistically significant. The coefficients show that there is a 1.6% drop in the probability of an employer reporting that labor regulations are the most important obstacle if they employ skilled workers, and a 2.9% increase if they export. These effect sizes are substantial given the small baseline proportion (4.5%) of employers reporting that labor regulations are the biggest obstacle they face. While these results do not confirm all our previous findings, they lend further credence to our conclusions by showing the relationship between two theoretically important variables and a distinct and demanding measure of employers’ opinions.<sup>31</sup>

**\*\*\* INSERT TABLE 3 HERE \*\*\***

## **CONCLUSION**

Labor regulations have tremendous social, economic, and political implications. They set floors on health and safety, influence the quality of the work environment, restrict the types of legitimate employment contracts that can be used, and prescribe legal rights and duties for employers and workers that condition their power in the marketplace (Freeman, 2009). Beyond these economic and social consequences, labor regulations also influence political outcomes;

---

<sup>30</sup> Among managers who report competing with the informal sector, 21% selected the “Practices of competitors in the informal sector” as their biggest obstacle out of the fifteen options, greater than any other option.

<sup>31</sup> These results are robust to the same saturated models reported in Table 2.

collective labor rights affect the power of organized labor and workers who are denied labor protections are less likely to vote or pay taxes (Ronconi & Zarazaga, 2015).

Given these far-reaching consequences, scholars have sought to understand why countries adopt different labor laws, devote varying resources to enforcing them, and host firms that provide different labor conditions for their workers (Murillo, 2005; Anner, 2008; Caraway, 2004; Schrank, 2009; Kuruvilla et al., 2011; Berliner et al., 2015b). Studies of labor politics acknowledge, either explicitly or implicitly, that employers play a crucial role in shaping the regulations that developing countries adopt and enforce. Due to the centrality of employers, theories of globalization and labor politics often hinge on the ways economic variables translate into opposition to labor regulations. Yet, the predictions of dominant theories for the opinions of employers have been unexamined.

Our article provides and empirically tests an account of variation of employers' views of labor regulation. We find evidence consistent with the firm-level mechanisms of theories that argue that labor protections are incompatible with globalization as well as some, but not all, of the firm-level mechanisms of those who argue that trade and foreign investment can push labor standards up. The association between exporting and employers being more negative towards labor regulation conforms to the way pessimists deduce the political views of employers. Politicians and regulators in jurisdictions where many firms export are more likely to face employers who have a negative opinion of labor laws, thereby making it more challenging for them to adopt and enforce protective regulations. Thus, we show evidence congruent with the microfoundations of theories relating trade to the erosion of labor regulations through the actions of employers. This result has direct implications for our understanding of the ways in which trade openness may influence labor policy. While trade may diffuse better labor practices and exporters might offer higher wages and be more productive than non-exporters, our analysis

shows that exporters nevertheless hold more negative opinions regarding labor regulation. This suggests that the competitive pressures unleashed by exposure to foreign trade may create political obstacles to adopting and enforcing labor regulation.

Our findings with regard to FDI do not show that employers in foreign-invested firms have a more positive opinion towards labor regulation, as predicted in the optimistic literature. Overall, we uncover little evidence congruent with the argument that foreign-invested firms are likely to offer political support for stronger worker protections. Although we do not challenge the core findings of country-level studies that link FDI to more protective labor regulations, the contrast between our finding on FDI and optimistic accounts of globalization raises important and unresolved questions about the mechanisms underlying these theories. If managers in establishments receiving FDI do not support labor regulation any more than domestically-owned establishments do, what is driving the ‘climb to the top’ dynamic? Future research will have to discover alternative mechanisms to account for the relationships between FDI and labor regulations.

Although we cast doubt on the firm-level pathways proposed by globalization optimists, we find support for the mechanisms that both pessimists and optimists assume underlie variation in employers’ views towards labor regulation. Our results show that employers facing more competitive pressures because they sell in national markets or compete against informal firms are indeed more likely to hold a negative view of labor regulations. Both findings support the view highlighted by the pessimists that competition fuels negative opinions of regulation. We also find that firms that employ a higher portion of skilled workers are less likely to object to labor regulation. This finding is congruent with research on advanced industrial countries showing that firms’ positions towards labor policy depend on their production systems, especially their reliance on skilled workers. The finding suggest that, in developing countries, efforts to upgrade

firms' production systems, so that they utilize more skilled labor, may have both political and economic effects, as these employers have more positive opinions towards labor regulations.

One strength of our empirical analysis is the combination of employer-level observations with wide coverage of the data that allows us to dialogue with the cross-national literature theorizing the average effect of globalization on labor politics. However, the cross-sectional nature of our data prevents us from tracing the processes that lead employers to shift their views about labor regulations, and our focus on the average relationship clearly masks substantial heterogeneity across countries and industries. Future studies will be needed to determine whether, for example, changes in trade openness or shifts in supply chains that result in upskilling factories induce employers to shift their preferences. As these relationships are likely to depend on institutional configurations that change from country to country and sector to sector, studies focused on particular sectors and countries will be necessary. Moreover, by investigating employers' declared views of their firms' interests, we leave open the question of how employers' opinions affect labor law, enforcement, and working conditions on the ground. Given the state of the literature, we have good reasons to believe that politicians often act to adjust regulation in ways that meet the interests of firms, but more research is needed to understand the conditions under which politicians are more or less likely to do so. Future research will also have to link employers' opinions to their actual behaviors to construct a complete account of the role of firms in labor politics. This paper provides a necessary, but until now overlooked, first step; only by gaining an understanding of which employers perceive labor regulations as congruent or incongruent with their interests can we discover how they form preferences, and how and when their preferences become policy.

## REFERENCES

- Adolph, C., Quince, V., & Prakash, A. (2017). The Shanghai Effect: Do Exports to China Affect Labor Practices in Africa?. *World Development*, 89, 1-18.
- Amengual, M., & Chirot, L. (2016). Reinforcing the State Transnational and State Labor Regulation in Indonesia. *ILR Review*, 69 (5), 1056-1080 .
- Anner, M. (2008). Meeting the challenges of industrial restructuring: labor reform and enforcement in Latin America. *Latin American Politics and Society*, 50(2), 33-65.
- Anner, M. (2015). Labor control regimes and worker resistance in global supply chains. *Labor History*, 56(3), 292-307.
- Anner, M., & Caraway, T. (2010). International institutions and workers' rights: Between labor standards and market flexibility. *Studies in Comparative International Development*, 45(2), 151-169.
- Baker, A. (2005). Who wants to globalize? Consumer tastes and labor markets in a theory of trade policy beliefs. *American Journal of Political Science*, 49(4), 924-938.
- Berliner, D., Greenleaf, A. R., Lake, M., Levi, M., & Noveck, J. (2015a). Governing Global Supply Chains: What We Know (and Don't) About Improving Labor Rights and Working Conditions. *Annual Review of Law and Social Science*, 11, 193-209.
- Berliner, D., Greenleaf, A., Lake, M., & Noveck, J. (2015b). Building capacity, building rights? State capacity and labor rights in developing countries. *World Development*, 72, 127-139.
- Berliner, D., & Prakash, A. (2014). Public authority and private rules: How domestic regulatory institutions shape the adoption of global private regimes. *International Studies Quarterly*, 58(4), 793-803.
- Blanton, S. L., & Blanton, R. G. (2007). What attracts foreign investors? An examination of human rights and foreign direct investment. *Journal of Politics*, 69(1), 143-155.
- Braithwaite, J., & Drahos, P. (2000). *Global business regulation*. Cambridge University Press.
- Bull, Benedicte (2007). "Trade liberalization and the spread of regulatory institutions: The case of Chile." *Regulation & Governance* 1(4), 372-384.
- Caraway, T. L. (2004). Protective repression, international pressure, and institutional design: Explaining labor reform in Indonesia. *Studies in Comparative International Development*, 39(3), 28-49.
- Caraway, T. L. (2009). Labor rights in East Asia: progress or regress?. *Journal of East Asian Studies*, 153-186.
- Carnes, M., & Mares, I. (2013). Measuring the Individual-Level Determinants of Social Insurance Preferences: Survey Evidence from the 2008 Argentine Pension Nationalization. *Latin American Research Review*, 48(3), 108-129.
- Cashore, B. & Stone, M.W. (2014). Does California need Delaware? Explaining Indonesian, Chinese, and United States support for legality compliance of internationally traded products. *Regulation and Governance* 8(1), 49-73
- Chan, A., Ross, M. (2003). Racing to the bottom: international trade without a social clause. *Third World Quarterly*, 24(6), 1011-1028.
- Cook, M. L. (2010). *Politics of Labor Reform in Latin America: Between Flexibility and Rights*. Penn State Press.
- Coslovsky, S. V. (2014). Flying under the radar? The state and the enforcement of labour laws in Brazil. *Oxford Development Studies*, 42(2), 190-216.

- Drezner, D. W. (2001). Globalization and policy convergence. *International studies review*, 3(1), 53-78.
- Estevez-Abe, M., Iversen, T., & Soskice, D. (2001). Social protection and the formation of skills: a reinterpretation of the welfare state. *Varieties of capitalism. The institutional foundations of comparative advantage*, Oxford, 145.
- Fairfield, T. (2015). Structural power in comparative political economy: perspectives from policy formulation in Latin America. *Business and Politics*, 17(3), 411-441.
- Flanagan, R. J. (2006). *Globalization and labor conditions: working conditions and worker rights in a global economy*. Oxford University Press.
- Freeman, R. B. (2009). *Labor regulations, unions, and social protection in developing countries: market distortions or efficient institutions?* (No. w14789). National Bureau of Economic Research.
- Frundt, H. J. (1998). *Trade conditions and labor rights: US initiatives, Dominican and Central American responses*. University Press of Florida.
- Garcia-Johnson, R. (2000). *Exporting Environmentalism: U.S. Multinational Chemical Corporations in Brazil and Mexico*. MIT Press
- Genschel, P., & Schwarz, P. (2011). Tax competition: a literature review. *Socio-Economic Review*, 9(2), 339-370.
- Gray, Garry C and Susan S Silbey. "Governing Inside the Organization: Interpreting Regulation and Compliance." *American Journal of Sociology* 120, 1, 2014
- Greenhill, B., Mosley, L., & Prakash, A. (2009). Trade-based diffusion of labor rights: A panel study, 1986–2002. *American Political Science Review*, 103(04), 669-690.
- Haggard, S., Maxfield, S., & Schneider, B. R. (1997). Theories of business and business-State relations. *Business and the state in developing countries*, 36-60.
- Kuruvilla, S., Lee, C. K., & Gallagher, M. (2011). *From iron rice bowl to informalization: Markets, workers, and the state in a changing China*. Cornell University Press.
- Lall, S. (2005). FDI, AGOA and manufactured exports by a landlocked, least developed African economy: Lesotho. *Journal of Development Studies*, 41(6), 998-1022.
- La Porta, R., & Shleifer, A. (2014). Informality and development. *The Journal of Economic Perspectives*, 28(3), 109-126.
- Locke, R. M., & Romis, M. (2010). The promise and perils of private voluntary regulation: Labor standards and work organization in two Mexican garment factories. *Review of International Political Economy*, 17(1), 45-74.
- Madrid, R. L. (2003). Labouring against neoliberalism: Unions and patterns of reform in Latin America. *Journal of Latin American Studies*, 35(01), 53-88.
- Mares, I. (2003). The sources of business interest in social insurance: Sectoral versus national differences. *World Politics*, 55(02), 229-258.
- Martin, C. J. (2005). Corporatism from the firm perspective: employers and social policy in Denmark and Britain. *British Journal of Political Science*, 35(1), 127-148.
- Melitz, M. J., & Ottaviano, G. I. (2008). Market size, trade, and productivity. *The review of economic studies*, 75(1), 295-316.
- Merk, J. (2014). The rise of tier 1 firms in the global garment industry: Challenges for labour rights advocates. *Oxford Development Studies*, 42(2), 259-277.
- Mosley, L. (2010). *Labor rights and multinational production*. Cambridge University Press.
- Mosley, L., & Singer, D. A. (2015). Migration, labor, and the international political economy. *Annual Review of Political Science*, 18, 283-301.

- Mosley, L., & Uno, S. (2007). Racing to the bottom or climbing to the top? Economic globalization and collective labor rights. *Comparative Political Studies*, 40(8), 923-948.
- Mosley, L. (2017). Workers' rights in global value chains: Possibilities for protection and for peril. *New Political Economy* 22(2), 153-168.
- Murillo, M. V. (2005). Partisanship amidst convergence: The politics of labor reform in Latin America. *Comparative Politics*, 441-458.
- Nadvi, K., & Raj-Reichert, G. (2015). Governing health and safety at lower tiers of the computer industry global value chain. *Regulation and Governance*, 9(3), 243-258
- Neumayer, E., & De Soysa, I. (2006). Globalization and the right to free association and collective bargaining: An empirical analysis. *World development*, 34(1), 31-49.
- Perez-Aleman, P. (2013). Regulation in the Process of Building Capabilities: Strengthening Competitiveness While Improving Food Safety and Environmental Sustainability in Nicaragua. *Politics and Society*, 41(4), 589-620.
- Pires, R. (2008). Promoting sustainable compliance: Styles of labour inspection and compliance outcomes in Brazil. *International Labour Review*, 147(2-3), 199-229.
- Payton, A. L., & Woo, B. (2014). Attracting investment: governments' strategic role in labor rights protection. *International Studies Quarterly*, 58(3), 462-474.
- Pandya, S. S. (2010). Labor markets and the demand for foreign direct investment. *International Organization*, 64(03), 389-409.
- Ronconi, L. (2012). Globalization, domestic institutions, and enforcement of labor law: Evidence from Latin America. *Industrial Relations: A Journal of Economy and Society*, 51(1), 89-105.
- Ronconi, L., & Zarazaga, R. (2015). Labor Exclusion and the Erosion of Citizenship Responsibilities. *World Development*, 74, 453-461.
- Schank, T., Schnabel, C., & Wagner, J. (2007). Do exporters really pay higher wages? First evidence from German linked employer–employee data. *Journal of international Economics*, 72(1), 52-74.
- Schrank, A. (2009). Professionalization and probity in a patrimonial state: Labor inspectors in the Dominican Republic. *Latin American Politics and Society*, 51(2), 91-115.
- Schrank, A. (2013). From disguised protectionism to rewarding regulation: The impact of trade-related labor standards in the Dominican Republic. *Regulation and Governance* 7(3), 299-320
- Schneider, B. R. (2013). *Hierarchical Capitalism in Latin America*. Cambridge University Press.
- Stallings, B. (2010). Globalization and labor in four developing regions: An institutional approach. *Studies in Comparative International Development*, 45(2), 127-150.
- Swenson, P. (1991). Bringing capital back in, or social democracy reconsidered: employer power, cross-class alliances, and centralization of industrial relations in Denmark and Sweden. *World Politics*, 43(04), 513-544.
- Toffel, M., Short, J. and Ouellet, M. (2015). Codes in context: How states, markets, and civil society shape adherence to global labor standards. *Regulation and Governance* 9 (3), 205-223
- Wood, S. (2001). "Business, Government, and Patterns of Labor Market Policy in Britain and the Federal Republic of Germany" *Varieties of capitalism. The institutional foundations of comparative advantage*, Oxford, 247-274.

- Estevez-Abe, M., Iversen, T., & Soskice, D. (2001). Social protection and the formation of skills: a reinterpretation of the welfare state. *Varieties of capitalism. The institutional foundations of comparative advantage, Oxford*, 145-183.
- Van Biesebroeck, J. (2005). Exporting raises productivity in sub-Saharan African manufacturing firms. *Journal of International economics*, 67(2), 373-391.
- Vogel, D. (1995). *Trading up: Consumer and environmental regulation in a global economy*. Harvard University Press.

**TABLES**

*Table 1: Negative Opinion of Labor Regulation*

	M1	M2	M3	M4	M5	M6	M7	M8	M9
<i>Skilled Worker</i>	-0.232*** (0.03)					-0.210*** (0.03)	-0.211*** (0.03)	-0.177*** (0.03)	-0.207*** (0.0347)
<i>Export</i>		0.233*** (0.04)				0.238*** (0.04)	0.220*** (0.04)	0.181*** (0.03)	
<i>FDI</i>			0.0671** (0.03)			0.0247 (0.03)	0.0191 (0.03)	0.0297 (0.03)	
<i>Non-Local Product</i>				0.116*** (0.02)		0.0827*** (0.02)	0.0783*** (0.02)	0.0470** (0.02)	0.0610** (0.0291)
<i>Competition from Informal Sector</i>					0.189*** (0.02)	0.216*** (0.02)	0.213*** (0.02)	0.0947*** (0.02)	0.214*** (0.0314)
<i>Establishment Size</i>							0.0367** (0.02)	0.0351** (0.02)	0.0283 (0.0237)
<i>Permanent</i>							-0.233*** (0.06)	-0.110** (0.05)	-0.232*** (0.0583)
<i>Labor Intensity</i>							0.00885 (0.04)	0.0488 (0.04)	0.0257 (0.0428)
<i>Average Obstacles</i>								0.651*** (0.02)	
<i>FDI Exporter</i>									0.211*** (0.0340)
<i>FDI Domestic Sales</i>									-0.0170 (0.0444)
<i>Domestic Owned Exporter</i>									0.190*** (0.0242)
<i>Constant</i>	0.818*** (0.05)	0.636*** (0.04)	0.661*** (0.05)	0.625*** (0.05)	0.595*** (0.04)	0.654*** (0.05)	0.869*** (0.08)	0.366*** (0.07)	0.821*** (0.0668)
<i>R-squared</i>	0.255	0.255	0.252	0.254	0.257	0.265	0.267	0.391	0.269
<i>Observations</i>	19,282	19,282	19,282	19,282	19,282	19,282	19,282	19,282	19,282

Dependent variable is *Obstacle*. OLS models, with country, sector, and year dummies included in all models. Robust standard errors clustered at city in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 2: Saturated, City, and Product Fixed-Effects Models

Independent Variables	M10	M11	M12	M13
<i>Skilled Worker</i>	-0.198*** (0.0358)	-0.206*** (0.0336)	-0.195*** (0.0388)	-0.208*** (0.033)
<i>Export</i>	0.236*** (0.0351)	0.201*** (0.0368)	0.229*** (0.0392)	0.224*** (0.0367)
<i>FDI</i>	0.0122 (0.0302)	0.0207 (0.0312)	0.0112 (0.0327)	0.0192 (0.0298)
<i>Non-Local Product</i>	0.0806*** (0.0191)	0.0757*** (0.0216)	0.0723*** (0.0207)	0.0834*** (0.0203)
<i>Competition from Informal Sector</i>	0.203*** (0.0211)	0.213*** (0.0223)	0.206*** (0.0217)	0.211*** (0.0233)
<i>Establishment Size</i>	0.0311* (0.0174)	0.0335* (0.0176)	0.0280 (0.0187)	0.0396** (0.0187)
<i>Permanent</i>	-0.246*** (0.0496)	-0.233*** (0.0548)	-0.276*** (0.0541)	-0.261*** (0.0571)
<i>Labor Intensity</i>	0.0281 (0.0391)	0.00997 (0.0415)	0.0373 (0.0438)	-0.00907 (0.0396)
<i>Constant</i>	1.121*** (0.0737)	0.592* (0.341)	1.097*** (0.174)	2.796*** (0.105)
<i>Country Dummies</i>	N	N	N	Y
<i>City Dummies</i>	Y	N	N	N
<i>Industry Dummies</i>	Y	N	N	N
<i>Product Dummies</i>	N	N	N	Y
<i>Country x Industry</i>	N	Y	N	N
<i>City x Industry</i>	N	N	Y	N
Observations	19,282	19,282	19,282	19,811
R-squared	0.298	0.293	0.362	0.271

Dependent variable *Obstacle*. Robust standard errors clustered at city level in parentheses. Year dummies included in all models. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 3: Likelihood of Selecting Labor Regulation as Most Important Obstacle

Independent Variables	M14	M15	M16	M17	M18	M19
<i>Skilled Worker</i>	-0.0173*** (0.01)					-0.0159*** (0.01)
<i>Export</i>		0.0356*** (0.01)				0.0290*** (0.01)
<i>FDI</i>			0.0142** (0.01)			0.003 (0.005)
<i>Non-Local Product</i>				0.0103** (0.00)		0.003 (0.003)
<i>Competition from Informal Sector</i>					-0.00674** (0.00)	-0.003 (0.003)
<i>Establishment Size (1000 People)</i>						0.00695** (0.004)
<i>Permanent</i>						-0.004 (0.01)
<i>Labor Intensity</i>						0.003 (0.06)
<i>Constant</i>	0.0803*** (0.01)	0.0642*** (0.01)	0.0675*** (0.01)	0.0652*** (0.01)	0.0717*** (0.01)	0.0775*** (0.01)
<i>N</i>	19,282	19,282	19,282	19,282	19,282	19,282
<i>R-squared</i>	0.057	0.059	0.057	0.057	0.057	0.06

OLS regressions, with *Labor Most* as dependent variable. Country, year, and industry fixed effects are included in all analyses. Robust standard errors clustered at the city level in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## **APPENDIX OF SUPPORTING INFORMATION**

Table A1: Descriptive Statistics

Table A2: Correlation Matrix

Table A3: Countries Included

Table A4: Generalized Ordered Logit Model

Table A5: Entropy Balancing on Export

Table A6: Obstacle with Balanced Data on Export

Table A7: Obstacle with Alternative Competition Measure

Table A8: Negative Opinion of Labor Regulation Using Earlier Wave of ES (2002-2006)

Table A9: Export Destination and Employers' Opinions in Latin America

Table A10: Split Sample on Bilateral Trade and FDI Context

Table A10: Multilevel Models

Table A12: Descriptive Statistics of Country-Level Variables

Table A13: Labor Regulation Index

*Table A1: Descriptive Statistics*<sup>32</sup>

<b>Variable</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>Min</b>	<b>Max</b>
<i>Obstacle</i>	1.16	1.21	0	4
<i>Skilled Worker</i>	0.66	0.32	0	1
<i>Export</i>	0.15	0.29	0	1
<i>FDI</i>	0.1	0.28	0	1
<i>FDI Domestic Sales</i>	0.03	0.18	0	1
<i>FDI Exporter</i>	0.07	0.25	0	1
<i>Domestic Owned Exporter</i>	0.28	0.45	0	1
<i>Domestic Owned Domestic Sales</i>	0.63	0.48	0	1
<i>Non-Local Product</i>	0.61	0.49	0	1
<i>Competition from Informal Sector</i>	0.56	0.5	0	1
<i>Establishment Size (1000 People)</i>	0.16	0.6	0.001	30.1
<i>Permanent</i>	0.89	0.18	0	1
<i>Labor Intensity</i>	0.33	0.24	0	1
<i>Average Obstacles</i>	1.38	0.84	0	4
<i>Labor Most</i>	0.04	0.21	0	1

---

<sup>32</sup> N=19,282. In our sample, 36% of the enterprises are small (less than 20 employees), 37% are medium-sized (between 20 and 99 employees), and 27% are large (more than 100 employees). In terms of geography, 25.6% are located in Africa and the Middle East, 15.1% in South and Eastern Asia/Pacific, 21.5% in Europe and Central Asia, and 38% in Latin America and the Caribbean. A full list of countries is in Table A3. During the visits, enumerators assess the likely accuracy of responses whose values can be measured objectively, such as productivity and employment numbers. In our sample, 36% of these responses are “taken directly from establishment records,” 58% are “computed with some precision,” and only 6% seem to be “arbitrary and unreliable.”

**Table A2: Correlation Matrix**

<i>Variables</i>	1	2	3	4	5	6	7	8	9	10	11
<i>1. Obstacle</i>	1										
<i>2. Skilled Worker</i>	-0.08***	1									
<i>3. Export</i>	0.02*	0	1								
<i>4. FDI</i>	0.01	0.02**	0.27***	1							
<i>5. Non-Local Product</i>	0.04***	-0.08***	0.31***	0.13***	1						
<i>6. Competition from Informal Sector</i>	0.15***	-0.05***	-0.17***	-0.11***	-0.09***	1					
<i>7. Establishment Size (1000 People)</i>	0.02**	-0.02***	0.16***	0.12***	0.12***	-0.05***	1				
<i>8. Permanent</i>	-0.03***	-0.02*	-0.05***	-0.01	0	-0.05***	-0.02*	1			
<i>9. Labor Intensity</i>	-0.02***	0.06***	0.03***	-0.03***	-0.06***	0	-0.01	0.04***	1		
<i>10. Average Obstacles</i>	0.50***	0.01*	-0.05***	-0.01	-0.03***	0.18***	-0.03***	-0.05***	-0.02*	1	
<i>11. Labor Most</i>	0.28***	-0.04***	0.05***	0.02**	0.03***	0	0.03***	0	0	-0.01	1

**Table A3: Countries Included**

<b>Country/Year</b>	<b># of Obs.</b>	<b>Country/Year</b>	<b># of Obs.</b>	<b>Country/Year</b>	<b># of Obs.</b>
Afghanistan 2008	98	Jamaica 2010	70	Turkey 2008	657
Albania 2013	76	Jordan 2013	124	Uganda 2013	237
Angola 2010	118	Kazakhstan 2009	134	Ukraine 2008	348
Argentina 2010	653	Kenya 2013	288	Uruguay 2010	253
Armenia 2009	91	Kosovo 2009	55	Uzbekistan 2008	119
Azerbaijan 2009	106	Kyrgyz Republic 2009	83	Venezuela 2010	61
Belarus 2008	55	Latvia 2009	72	Vietnam 2009	703
Bolivia 2010	57	Lebanon 2013	152	Yemen 2010	194
Bosnia and Herzegovina 2009	94	Lithuania 2009	71	Zambia 2013	230
Botswana 2010	76	Madagascar 2009	174	Zimbabwe 2011	310
Brazil 2009	718	Mali 2010	51		
Bulgaria 2009	53	Mauritius 2009	116		
Burkina Faso 2009	70	Mexico 2010	1,032		
Cameroon 2009	104	Moldova 2009	91		
Chile 2010	647	Mongolia 2009	122		
China 2012	1,535	Montenegro 2009	21		
Colombia 2010	612	Mozambique 2007	341		
Costa Rica 2010	251	Myanmar 2014	327		
Cote d'Ivoire 2009	125	Nepal 2009	123		
Croatia 2007	272	Nicaragua 2010	103		
Czech Republic 2009	55	Panama 2010	56		
DRC 2010	106	Paraguay 2010	91		
Djibouti 2013	10	Peru 2010	643		
Dominican Republic 2010	100	Philippines 2009	779		
Ecuador 2010	103	Poland 2009	87		
El Salvador 2010	103	Romania 2009	91		
Estonia 2009	73	Russia 2009	435		
Ethiopia 2011	111	Senegal 2007	259		
Fyr Macedonia 2009	102	Serbia 2009	127		
Georgia 2008	97	Slovak Republic 2009	48		
Ghana 2013	202	Slovenia 2009	86		
Guatemala 2010	242	South Africa 2007	677		
Honduras 2010	106	Sri Lanka 2011	283		
Hungary 2009	87	Tajikistan 2008	99		
Indonesia 2009	870	Tanzania 2013	188		
Iraq 2011	392	Trinidad & Tobago 2010	101		

### Generalized Ordered Logit Model

To further investigate the non-linear nature of the dependent variable, we use a generalized ordered logit model in Table A4. Each column gives the log odds of a respondents viewing labor regulation “above” a particular threshold. For example, the first column provides the log odds of a respondents viewing labor regulation as any obstacle (Obstacle=1, 2, 3, or 4) versus viewing labor regulation as no obstacle (Obstacle=0); the second column gives the log odds of a respondent viewing labor regulation as a moderate, major, or very severe obstacle (Obstacle=2, 3, or 4) versus viewing labor regulation as no or minor obstacle (Obstacle=0 or 1), and so on. For the variables *Skilled Worker*, *Export*, and *Competition with the Informal Sector*, the coefficients are similarly signed across all levels. Thus, these results are entirely consistent with the OLS models. For *Non-Local Product*, coefficients are only significant below “Major Obstacle,” (Obstacle =3) suggesting that the size of the domestic market is only related to moving from no objection to negative opinions, but not the intensity of the negative opinions. Interestingly, this analysis reveals that FDI is positively associated with moves from “No Obstacle” to “Minor Obstacle,” but negatively associated with viewing labor regulation as a “Major Obstacle.” While the overall effect of FDI remains ambiguous, this result provides further evidence that employers in foreign-invested firms are unlikely to hold positive opinions (as indicated by declaring that labor regulation is not an obstacle) than we would expect if these firms favored greater labor protections as optimistic theories argue.

**Table A4: Generalized Ordered Logit Model**

Independent Variables	Minor Obstacle	Moderate Obstacle	Major Obstacle	Severe Obstacle
<i>Skilled Worker</i>	-0.443*** (0.0906)	-0.412*** (0.0733)	-0.329*** (0.083)	-0.261** (0.106)
<i>Export</i>	0.321*** (0.0782)	0.501*** (0.0776)	0.489*** (0.088)	0.309* (0.179)
<i>FDI</i>	0.179** (0.0721)	0.009 (0.071)	-0.147* (.0883)	-0.095 (0.137)
<i>Non-Local Product</i>	0.174*** (0.056)	0.162*** 0.0534	0.047 (0.049)	0.045 (0.079)
<i>Competition from Informal Sector</i>	0.365*** (0.058)	0.454*** (0.049)	0.447*** 0.0502	0.463*** (0.084)
<i>Establishment Size (1000 people)</i>	0.077** (0.0414)	.087* (0.048)	0.0069 (0.047)	-0.177 (0.114)
<i>Permanent</i>	-0.399*** (0.138)	-0.413** (0.131)	-0.494** (0.15)	-0.147 (0.233)
<i>Labor Intensity</i>	-0.0231 (0.095)	0.047 (0.086)	0.109 (0.104)	0.059 (0.179)
<i>Constant</i>	-0.0476 (0.169)	-1.268*** (0.20)	-2.19*** (0.235)	-4.38*** (0.733)

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01. Robust standard errors, clustered at city level, in parentheses. Country, sector, and year fixed effects. Pseudo R-squared 0.13. N=19,282; N of countries=82.

## ***Balancing***

One concern with the analysis is that exporting firms tend to be different than non-exporting firms, in that they are larger, more productive, and more likely to have foreign capital. While balancing and matching cannot eliminate the problem of omitted variable bias, by preprocessing the data with matching we can reduce problems of imbalance between exporters and non-exporters, as well as model dependency. Below, we present the results of our main analysis after we pre-processed the data using entropy balancing. Entropy balancing reweights the “control group” (i.e. non-exporting firms) to ensure these establishments match the moments of the “treatment group” (i.e. exporting firms).<sup>33</sup> We prefer entropy balancing over other preprocessing methods such as propensity score matching because entropy balancing does not discard observations: all information in our data set is preserved which enhances subsequent analyses.<sup>34</sup> As Table A5 makes clear, before balancing exporting firms as a group tend to be larger, have more foreign investment, and are less often subjected to competition from the informal sector than non-exporting firms. After balancing, the means and variance of most covariates are identical (Table A5; the mean for *Obstacles* is 1.09 for establishments that do not export and 1.32 for those that do, a statistically significant difference ( $F=27.05$ ,  $p<0.01$ )). In Table A6, we run the same Model 8 from Table 1 on the balanced data. The results show that the coefficient on exporting remains statistically significant and in the positive direction.

---

<sup>33</sup> We create a dummy variable, *Export Dummy*, that equals 1 if the establishment exports any of its production. We ran the analysis with the cutoff at 50% of the establishment’s production, and the results are the same.

<sup>34</sup> Hainmueller, Jens. "Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies." *Political Analysis* 20 (2012): 25-46.

**Table A5: Entropy Balancing on Export**

**Panel 1: Before Balancing**

	Export Mean	Export Variance	Export Skewness	Non-Export Mean	Non-Export Variance	Non-Export Skewness
<i>Skilled Worker</i>	0.64	0.10	-0.43	0.68	0.11	-0.60
<i>FDI</i>	0.19	0.13	1.58	0.05	0.04	4.16
<i>Non-Local Product</i>	0.84	0.13	-1.86	0.49	0.25	0.06
<i>Competition from Informal Sector</i>	0.47	0.25	0.11	0.60	0.24	-0.40
<i>Establishment Size (1000 People)</i>	0.31	0.77	13.11	0.08	0.13	50.32
<i>Permanent</i>	0.89	0.03	-2.07	0.90	0.03	-2.02
<i>Labor Intensity</i>	0.32	0.06	1.04	0.34	0.06	0.82
<i>Average Obstacles</i>	1.39	0.68	0.32	1.37	0.73	0.36

**Panel 2: After Balancing**

	Export Mean	Export Variance	Export Skewness	Non-Export Mean	Non-Export Variance	Non-Export Skewness
<i>Skilled Worker</i>	0.64	0.10	-0.43	0.64	0.11	-0.41
<i>FDI</i>	0.19	0.13	1.58	0.19	0.14	1.59
<i>Non-Local Product</i>	0.84	0.13	-1.86	0.83	0.14	-1.80
<i>Competition from Informal Sector</i>	0.47	0.25	0.11	0.47	0.25	0.10
<i>Establishment Size (1000 People)</i>	0.31	0.77	13.11	0.31	5.57	12.18
<i>Permanent</i>	0.89	0.03	-2.07	0.89	0.04	-1.88
<i>Labor Intensity</i>	0.32	0.06	1.04	0.32	0.06	0.95
<i>Average Obstacles</i>	1.39	0.68	0.32	1.39	0.73	0.30

**Table A6: Obstacle with Balanced Data on Export**

Independent Variables	MA1
<i>Skilled Worker</i>	-0.163*** (0.0335)
<i>Export</i>	0.198*** (0.0326)
<i>FDI</i>	0.00570 (0.0321)
<i>Non-Local Product</i>	0.00559 (0.0188)
<i>Competition from Informal Sector</i>	0.132*** (0.0240)
<i>Establishment Size (1000 workers)</i>	0.00315 (0.00507)
<i>Permanent</i>	-0.120** (0.0593)
<i>Labor Intensity</i>	0.0308 (0.0419)
<i>Average Obstacles</i>	0.637*** (0.0187)
<i>Constant</i>	0.542*** (0.0714)
<i>Observations</i>	19,282
<i>R-squared</i>	-0.163***

Robust standard errors clustered at city-level in parentheses.

Year, country, and sector dummy variables included.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

### *Alternative Measure of Competitive Intensity*

Our primary measures of intensity of competition are (i) whether the establishment sells its products to national or municipal markets, and (ii) whether the establishment competes against firms in the informal sector. The ES survey provides an additional question that allows us to measure this concept through different means. Specifically, the survey asked each employer: “For the last fiscal year, for the main market in which this establishment sold its main product, how many competitors did this establishment’s main product/product line face? The options range from none, one, 2-5, and more than five. Drawing from these answers, we create a dummy variable that equals one when the response is more than five, separating out those establishments that face very little competitors from those that face many competitors. Unfortunately, there are many missing values, so the N drops to approximately 13,000 establishments in 68 countries. Analyzing the results in Table A7, we find that this measure of competitive intensity is positively associated with employers viewing labor regulation as an obstacle.

**Table A7: Obstacle with Alternative Competition Measure**

Independent Variables	MA2	MA3
<i>Skilled Worker</i>		-0.204*** (0.0382)
<i>Export</i>		0.370*** (0.0778)
<i>FDI</i>		0.0387 (0.0417)
<i>Competition from Informal Sector</i>		0.208*** (0.0274)
<i>Establishment Size (1000 workers)</i>		0.0483 (0.0371)
<i>Permanent</i>		-0.280*** (0.0652)
<i>Labor Intensity</i>		0.00679 (0.0442)
<i>More than Five Competitors</i>	0.0894*** (0.0217)	0.0617*** (0.0223)
<i>Constant</i>	0.591*** (0.0541)	0.878*** (0.0891)
<i>Observations</i>	12,798	12,798
<i>R-squared</i>	0.274	0.286

Robust standard errors clustered at city-level in parentheses.

Year, country, and sector dummy variables included.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

### ***Analysis of an Earlier Round of Enterprise Survey Data***

The paper presents cross-sectional data for surveys completed in or around 2010, at the height of the Great Recession. As a robustness check, we use data from earlier survey waves, centered on 2004, to replicate our analysis. This sample contains data on an additional 16,500 employers in 83 countries (there is no overlap between these data and the data we use in the main analysis). There are four main differences in the survey questions. First, there are no questions that allow us to recreate the *Non-Local Product* variable. Second, the survey does not ask employers whether their firms compete against the informal sector. Rather, it asks whether “Anti-competitive or informal practices” is an obstacle (on a 0-4 scale). Third, the survey does not include a question that would allow us to recreate the *Labor Most* variable. Fourth, the survey does not include data on the city in which establishments are located. The rest of the variables approximate those that we used in the main analysis.

Table A8 contains analyses with *Obstacle* as the dependent variable. We run a series of OLS models with country, year, and industry fixed effects, and with standard errors clustered at country level. Just as in Table 2, we first show simple models that only include one explanatory variable along with country, year, and industry dummies (Models 1-4). In Model 5, we control for the size of enterprise and percentage of workers with permanent contracts. Model 6 controls for *Average Obstacle*, which is the mean of managers’ perception about other obstacles.

With two exceptions, the coefficients of key variables remain significant and in the same direction as reported on our analysis in Table 1; exporting and informal competition are associated with negative opinions of labor regulation, while reliance on a skilled workforce is associated with more positive opinions. One difference from the models in Table 2 is that informal competition is no longer significant when the *Average Obstacles* variable is included, an unsurprising result due to the fact that these variables are highly correlated with one another (0.65). A second difference in this period concerns FDI, which is associated with negative opinions of labor regulation. Although the effect size is small, this result casts further doubt on the firm-level mechanism suggested by globalization optimists.

**Table A8: Negative Opinion of Labor Regulation Using Earlier Wave of ES (2002-2006)**

VARIABLES	MA4	MA5	MA6	MA7	MA8	MA9
<i>Skilled Worker</i>	-0.0895*** (0.0287)				-0.0787*** (0.0251)	-0.0622*** (0.0210)
<i>Export</i>		0.162*** (0.0488)			0.172*** (0.0455)	0.109*** (0.0255)
<i>FDI</i>			0.0961*** (0.0330)		0.0679** (0.0286)	0.0725*** (0.0232)
<i>Informal Competition</i> <sup>35</sup>				0.201*** (0.0225)	0.206*** (0.0218)	0.0172 (0.0105)
<i>Size (1000 workers )</i>					0.0606*** (0.0153)	0.0383*** (0.0117)
<i>Permanent</i>					-0.0621 (0.0480)	-0.0542 (0.0406)
<i>Average Obstacles</i>						0.879*** (0.0365)
<i>Constant</i>	1.225*** (0.0322)	1.147*** (0.0244)	1.152*** (0.0248)	0.912*** (0.0305)	0.943*** (0.0539)	-0.505*** (0.0761)
<i>Observations</i>	16,531	16,531	16,531	16,531	16,531	16,531
<i>R-squared</i>	0.348	0.349	0.348	0.382	0.388	0.527

Dependent variable is *Obstacle*. OLS models, with country, industry, and year dummies included in all models. Robust standard errors clustered at country in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

<sup>35</sup> Informal Competition measures the severity of anti-competitive or informal practices as an obstacle on a five point scale where 0 if no obstacle, 4 if very severe obstacle.

### *Export Destination and Bilateral Trade / FDI Context*

A set of recent articles (Greenhill et al., 2009, Adolph et al., 2017) has argued that the influence of trade on labor politics depends on the country's trading partners. Specifically, these authors argue that countries' labor practices improve when their firms trade with countries that have stronger labor protections. Conversely, countries' labor practices worsen when their firms trade with countries that have weaker labor protections. Like most of the literature, these studies rely exclusively on country-level analyses, but their authors discuss both firm- and country-level mechanisms. According to these articles, firms that export to countries with stronger labor protections should improve their practices and, ultimately, pull up labor regulations and practices.

Unfortunately, we do not have data on the trading partners for each and every establishment in our main sample so we cannot test the hypotheses suggested by these two papers. However, a set of Enterprise Surveys conducted in Latin America in 2006 asked managers for the "primary destination" of their establishment's main product. Using responses to this question, we create two variables: (1) *Export Developed* is a dummy variable for those establishments that export to the United States, Canada, or Europe (7% of the sample), and (2) *Export Developing* is a dummy variable for those that export to Asia, Africa, or Latin America (also 7% of the sample). The omitted category represents establishments that primarily sell to domestic markets. Thus, these data allows us to investigate whether, at the firm level, there is indeed a difference in opinions among managers depending on the main export destination of their goods. We test the following two hypotheses:

*HA1: Employers in developing country firms that mainly sell their products to **developed** country markets should have a more **positive** view of labor regulation than firms that mainly sell their products domestically.*

*HA2: Employers in developing country firms that mainly sell their products to **developing** country markets should have a more **negative** view of labor regulation than firms that mainly sell their products domestically.*

We seek to approximate the model in Table 1 as closely as possible, but too many observations for the variable *Informal Competition* are missing, so we do not include it in the analysis. Instead, we use the variable *Informal Obstacle* based on a question that asked respondents to assess how great of an obstacle is competition from the informal sector. After removing observations with missing values, we obtain a dataset that contains ~4,300 formal manufacturing establishments located in 14 countries.<sup>36</sup> The results are presented in Table A9. Models A10 and MA11 use *Obstacle* as a dependent variable, and A14 and A15 use *Labor Most* as a

---

<sup>36</sup> Bolivia, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay.

dependent variable. The results provide some support HA2, but clearly falsify HA1. We take these results with caution because they are confined to a particular region – Latin America – where we also find the highest rates of negative opinions towards labor regulation. Yet the similarity between the opinions of firms that export to developing countries and our overall findings suggests that our lack of information about export destinations does not invalidate our main result. Note that, in this regression, FDI has a very small association with more positive views of labor regulation, suggesting that while the average effect of FDI is null throughout the world, there are places where FDI inflows are indeed associated with managers not seeing labor regulations as an obstacle.

**Table A9: Export Destination and Employers' Opinions of Labor Regulation in Latin America**

	MA10 <i>Obstacle</i>	MA11 <i>Obstacle</i>	MA12 <i>Labor Most</i>
<i>Skilled Worker</i>	-0.175*** (0.0555)	-0.122** (0.0502)	-0.00730 (0.00988)
<i>Export Developed</i>	0.298*** (0.0660)	0.164*** (0.0613)	0.0481** (0.0201)
<i>Export Developing</i>	0.184** (0.0744)	0.0905 (0.0727)	-0.00338 (0.0177)
<i>FDI</i>	-0.00136* (0.000728)	-0.00157** (0.000654)	-0.000344*** (0.000125)
<i>Non-Local Product</i>	-0.0170 (0.0397)	-0.0167 (0.0374)	-0.00669 (0.00668)
<i>Informal Obstacle</i>	0.138*** (0.0162)	0.0196 (0.0150)	-0.000616 (0.00253)
<i>Size</i>	0.0220 (0.0292)	0.0331 (0.0258)	0.0222** (0.00960)
<i>Labor Costs</i>	0.225** (0.0931)	0.267*** (0.0985)	0.000372 (0.0178)
<i>Perm</i>	-0.0473 (0.0671)	-0.0178 (0.0656)	-0.00164 (0.0117)
<i>Average Obstacles</i>		0.672*** (0.0261)	
<i>Constant</i>	2.078*** (0.118)	1.086*** (0.119)	0.163*** (0.0254)
<i>Observations</i>	4,354	4,354	4,375
<i>R-squared</i>	0.202	0.324	0.056

Robust standard clustered at town level in errors in parentheses.  
Fixed effects for country and industry included. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

To further probe the idea that the effect of trade on employers’ opinions depends on whether they trade “up” or trade “down”, we combine country-level export data (from the IMF, following Greenhill et al 2009) with country-level human rights data compiled by CIRI (and used by Berliner 2015a and Adolph et al 2017) to calculate an export-weighted average of labor rights for a country’s export partners in a given year.<sup>37</sup> To be clear, CIRI data are extremely coarse, as the variable can take only three values (0, 1, and 2, from least protective to most protective of labor rights). Following Greenhill et al (2009), we then calculate the bilateral trade context as:

$$Bilateral\ Trade\ Context_{it} = \sum_1^j Labor\ rights_{jt} \times \frac{Export_{ijt}}{Total\ exports_{it}}$$

Where  $Export_{ijt}$  is the volume of exports from country  $i$  to country  $j$  in year  $t$ ;  $Total\ exports_{it}$  are the total volume of exports from country  $i$  to its destinations in year  $t$ ;  $Labor\ rights_{jt}$  is the labor rights score of country  $j$  in year  $t$ . Thus,  $Bilateral\ Trade\ Context_{it}$  is the export-weighted average of labor rights across country  $i$ ’s export partners in year  $t$ .

We then split our sample into countries whose bilateral trade context in year  $t$  is above the median and those below median. The results, Table A9, show that direction of the relationship between export and manager’s perception of labor regulation is the same in both subsamples, indicating that even in countries where the literature suggests labor laws and practices are being pulled up by trade, exporters themselves are more likely to have negative opinions of labor regulation than employers who do not export.

Although no prior studies (to our knowledge) have made similar claims regarding FDI, it is reasonable to expect that the source of FDI also influences the effect of globalization. If that is the case, the null result on FDI that we find might be an artifact of our analysis, as it does not separate capital that flows from countries that uphold strict labor standards from capital that flows from countries that do not uphold strict labor standards.

Given that our firm-level dataset does not identify the country of origin of an establishment’s foreign investors, we take the same approach as with trade. More specifically, we combine

---

<sup>37</sup> This variable indicates the extent to which workers enjoy rights of freedom of association at workplaces and collective bargaining, and other internationally recognized rights at work, including a prohibition on the use of any form of forced, compulsory labor, or child labor, acceptable conditions of work with respect to minimum wages, work hour, and occupational safety and health.

UNCTAD data on FDI flows and stocks with CIRI data on human rights of investing countries to calculate bilateral context for FDI inflows and stock for each receiving country in our sample.<sup>38</sup>

$$Bilateral\ FDI\ Inflow\ Context_{it} = \sum_1^j Labor\ rights_{jt} \times \frac{FDI\ inflow_{jit}}{Total\ FDI\ inflow_{it}}$$

$$Bilateral\ FDI\ Instock\ Context_{it} = \sum_1^j Labor\ rights_{jt} \times \frac{FDI\ instock_{jit}}{Total\ FDI\ instock_{it}}$$

Where FDI inflow (instock)<sub>jit</sub> is the volume of FDI inflow (instock) from country *j* to country *i* in year *t*; Total FDI inflow (instock)<sub>it</sub> are the total volume of FDI inflow (instock) in country *i* in year *t*. Bilateral FDI inflow (instock)<sub>it</sub> is the FDI inflow (instock)-weighted average of labor rights across country *i*'s FDI origin countries in year *t*.

We split the sample between countries below and above the median of each bilateral FDI context variable. Our results show that FDI has no association with employer views of labor regulation even in countries whose FDI inflow or in-stock includes a larger share of countries with higher labor rights scores than the median.

---

<sup>38</sup> Bilateral FDI inflow and in-stock data is from UNCTAD's Bilateral FDI Statistics. <http://unctad.org/en/Pages/DIAE/FDI%20Statistics/FDI-Statistics-Bilateral.aspx>

**Table A10: Split Sample on Bilateral Trade and FDI Context**

	(MA13) Bilateral Trade Context Below Median Labor Standards	(MA14) Bilateral Trade Context Above Median Labor Standards	(MA15) Bilateral FDI In- Stock Context Below Median Labor Standards	(MA16) Bilateral FDI In- Stock Context Above Median Labor Standards	(MA17) Bilateral FDI Inflow Context Above Median Labor Standards	(MA18) Bilateral FDI Inflow Context Below Median Labor Standards
<i>Skilled Worker</i>	-0.214*** (0.0353)	-0.197** (0.0777)	-0.176*** (0.0464)	-0.247*** (0.0468)	-0.156*** (0.0505)	-0.226*** (0.0438)
<i>Export</i>	0.219*** (0.0403)	0.222*** (0.0841)	0.234*** (0.0475)	0.207*** (0.0551)	0.195*** (0.0616)	0.220*** (0.0432)
<i>FDI</i>	0.000111 (0.0340)	0.0499 (0.0599)	0.0470 (0.0448)	-0.0115 (0.0423)	0.0626 (0.0643)	-0.00837 (0.0313)
<i>Non-Local Product</i>	0.0575** (0.0245)	0.137*** (0.0436)	0.0623* (0.0322)	0.0942*** (0.0290)	0.100** (0.0419)	0.0644*** (0.0239)
<i>Competition from Informal Sector</i>	0.216*** (0.0247)	0.214*** (0.0523)	0.169*** (0.0325)	0.261*** (0.0322)	0.0708** (0.0333)	0.281*** (0.0285)
<i>Establishment Size</i>	0.0231 (0.0173)	0.126*** (0.0394)	0.0286 (0.0190)	0.0630* (0.0329)	0.119*** (0.0382)	0.0156 (0.0168)
<i>Permanent</i>	-0.210*** (0.0659)	-0.323*** (0.0889)	-0.206*** (0.0768)	-0.271*** (0.0736)	-0.208** (0.0844)	-0.268*** (0.0694)
<i>Labor Intensity</i>	0.00499 (0.0457)	0.0364 (0.0804)	-0.0842 (0.0583)	0.108** (0.0504)	-0.0195 (0.0753)	0.0159 (0.0465)
Constant	0.444*** (0.113)	0.903*** (0.139)	0.741*** (0.138)	0.896*** (0.100)	0.818*** (0.134)	0.921*** (0.0889)
Observations	14,359	4,923	9,951	9,331	6,379	12,903
R-squared	0.294	0.180	0.311	0.193	0.212	0.283

Robust standard errors in parentheses, clustered at city. Country, year, and industry fixed-effects.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## *Multilevel model*

The models with country fixed-effects that we discuss in the main body of this paper control for cross-country heterogeneity, but they cannot estimate level effects of differences across countries, such as the content of labor laws. The intra-class correlation coefficient (ICC) shows that there are indeed important differences across countries; the ICC shows that 19% of the variation occurs at the country level. Therefore, in the following analysis we explicitly model the effects of country level variables. To do so, we combine the ES with country-level data from a variety of sources. For labor regulation, we draw on data from the World Bank Doing Business (DB) Project, which has been collecting data on labor regulations around the world since 2006. The DB data provide measures of a number of specific aspects of labor law. We include a variable that measures limits on the use of temporary contracts (*Max Duration*), measured by the maximum cumulative duration of a fixed-term employment relationship (in months) including all renewals<sup>39</sup>; the shorter the limit, the stricter the regulation. Second, we include severance pay (*Severance*), measured as the number of weeks of pay the employer owes a worker who is dismissed after 10 or 20 years of employment.<sup>40</sup> Third, we include a dummy variable indicating whether third-party approval is required for laying off one (or more) redundant workers (*Approval*). Fourth, we use a dummy variable indicating restrictions of overtime work (*No Overtime*). This variable equals one if the work week for a single worker cannot be extended to 50 hours per week for two months each year to respond to a seasonal increase in production. Fifth, we include notice period for redundancy dismissal (in weeks) after the worker has been employed continuously for 10 or 20 years (*Notice*).<sup>41</sup> Finally, we constructed an index (*Regulation Index*) that combines 18 measures of individual labor regulations, including indicators on difficulty of hiring, rigidity of work hours, difficulty of firing, and firing cost. The index ranges from 0-1, with 1 being the strictest regulation; details on how we constructed this measure are available in Table A10. This index only includes labor laws pertaining to individual workers' rights (and not collective labor rights). One important limitation of this index, and the separate measures of labor laws described above, is that they capture laws-on-the-books, and not the law-in-practice. Due to the large and varying gap between *de jure* and *de facto* regulations in developing countries, *de jure* measures only incompletely capture the differences across countries. We expect that this measurement error should decrease the likelihood of detecting a relationship between laws and employers' views.

Beyond the content of regulations, we also include a set of country-level variables that could influence managers' views towards labor regulation. To reduce problems of measurement

---

<sup>39</sup> The maximum value of *Max Duration* in our sample is 120 months. If a fixed-term employment relationship can be renewed indefinitely (i.e. no limit), we assume *Max Duration* is 240 months.

<sup>40</sup> The period is 20 years for 2006-2009 surveys, and 10 years for 2010-2014 surveys. The maximum value of *Severance* in our sample is 130 weeks' pay. If the law does not allow for redundancy dismissal we assume *Severance* is 150 weeks' pay.

<sup>41</sup> The period is 20 years for 2006-2009 surveys, and 10 years for 2010-2014 surveys. The maximum value of *Notice* in our sample is 13 weeks. If the law does not allow for redundancy dismissal, we assume *Notice* is 30 weeks.

error and missing values in specific years, for all of these variables, we use the average of the available data over five years ending with the year of the survey. First, to measure the level of global integration at the country level, we use net inflows of FDI measured as a percentage of GDP (*FDI Inflow*) and total trade (the sum of imports and exports) as a percentage of GDP (*Trade*). We obtain both of these measures from the World Bank's World Development Indicator (WDI) database. Second, we include a measure of *Democracy*, as countries that are more democratic have substantially different labor politics and often are more protective of workers (Mosley and Uno 2007), using data from the Polity IV. Third, leftist or labor-backed political parties tend to support protective labor regulations (Murillo and Schrank 2005; Murillo 2005) and enforcement (Ronconi 2012; Berliner et al. 2015b). To account for the ideology of the government, we include the variable *Power of the Left*, drawn from the Database of Political Institution, which equals one, if a leftist party holds the executive office, or zero, otherwise. Finally, we control for the natural logarithm of GDP per capita in current US dollars, drawn from World Bank WDI (*Log GDP*), and the unemployment rate drawn from the International Labor Organization (ILO) (*Unemployment*).

Models A19 and A17 include both national- and establishment-level data. After controlling for establishment-level variables, the ICC decreases to 13%, indicating that some of the between country variance is due to firm-level factors being unevenly distributed across countries. Overall, the country-level variables explain only a small amount of the variance in employers' opinions. Examining the results in detail, when countries have stricter labor laws, its employers are more likely to have a negative opinion of regulation. To contrast the size of the effects, one standard deviation increase on the *Regulation Index* (i.e. more stringent laws) is associated with a 0.08 increase in the predicted value of the *Obstacle* variable (i.e. more complaints)., A move from employing no skilled workers to all skilled workers is associated with a 0.19 decrease in the predicted value of the *Obstacle* variable. Finally, a move from not exporting to exporting all output is associated with an increase in 0.22 in the predicted value of the *Obstacle* variable. When we include labor laws individually, only approval of layoffs (*Approval*) and *Notice* are positively associated with negative opinions. Surprisingly, severance pay is negatively associated with negative opinions.

Employers in countries that have higher GDP per capita are more likely to have negative opinions of labor regulations. And employers in countries governed by left leaning executives are more likely to view regulation negatively. This finding is consistent with studies on labor politics that suggest that political ideology influences enforcement (Berliner et al. 2015b). Unemployment is negatively associated with employers responding that labor regulations are an obstacle. We find no association between levels of democracy and employers' views.

Turning to country-level measures of globalization, we find negative coefficients for both trade and FDI. Both findings allow for multiple interpretations. For trade, one possibility is that establishments in these countries face less enforcement, which we cannot measure independently (Ronconi 2012). For FDI, however, this is unlikely because countries that receive FDI enhance, rather than reduce, enforcement (Ronconi 2012). Another possibility is that FDI and trade tighten labor markets in the manufacturing sector in developing countries. While establishments that receive FDI or export their output have to reduce costs to please foreign investors, their neighboring establishments must devise ways to attract and retain workers in a tighter labor market. As a result, this latter category of firms may be more likely to offer labor conditions that

are aligned with the mandates of labor laws. The differing results for country- and establishment-level variables show the importance of analyzing micro-level data that can directly speak to the theoretical mechanisms underlying theories of globalization and labor politics. It would be incorrect to infer from the negative coefficient on country-level exports that individual establishments that export have more favorable opinion towards labor regulation. As reported in the main body of the paper, our firm-level data shows that the opposite is true.

**Table A11: Multilevel Models**

Independent Variables	MA19	MA20
<b>Establishment-Level</b>		
<i>Skilled Worker</i>	-0.191*** (0.03)	-0.192*** (0.03)
<i>Export</i>	0.222*** (0.03)	0.222*** (0.03)
<i>FDI</i>	0.014 (0.03)	0.013 (0.03)
<i>Non-Local Product</i>	0.078*** (0.02)	0.078*** (0.02)
<i>Competition from Informal Sector</i>	0.227*** (0.02)	0.227*** (0.02)
<i>Establishment Size(1000 People)</i>	0.065*** (0.02)	0.065*** (0.02)
<i>Permanent</i>	-0.174*** (0.05)	-0.175*** (0.05)
<i>Labor Intensity</i>	0 (0.04)	0.001 (0.04)
<b>Country-Level</b>		
<i>Log GDP</i>	0.152*** (0.04)	0.184*** (0.04)
<i>Trade</i>	-0.006*** 0.00	-0.006*** 0.00
<i>FDI Inflow</i>	-0.029*** (0.01)	-0.027** (0.01)
<i>Power of the Left</i>	0.451*** (0.10)	0.397*** (0.10)
<i>Unemployment</i>	-0.018** (0.01)	-0.017** (0.01)
<i>Democracy</i>	0.01 (0.01)	0.003 (0.01)
<i>Max Duration</i>	0 (0.00)	
<i>Severance</i>	-0.002*	

	(0.00)	
<i>No overtime</i>	0.12	
	(0.19)	
<i>Approval</i>	0.272**	
	(0.11)	
<i>Notice</i>	0.022***	
	(0.01)	
<i>Regulation Index</i>		0.436**
		(0.22)
<i>Constant</i>	-0.011	-0.416
	(0.38)	(0.37)
<b>Random Effects</b>		
<i>Variance of country-level error</i>	0.078***	0.090***
	(0.01)	(0.02)
<i>Variance of enterprise-level error</i>	1.144***	1.144***
	(0.01)	(0.01)

\* p<0.10, \*\* p<0.05, \*\*\* p<0.010. Multilevel linear models with *Obstacle* as the dependent variable. Number of establishments = 15,729; number of countries = 67. Standard errors in parentheses. Sector and year fixed effects included in all models.

**Table A12: Descriptive Statistics of Country-Level Variables**

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>Min</b>	<b>Max</b>
<i>Log GDP</i>	80	7.97	1.14	5.70	10.03
<i>Trade</i>	78	85.44	30.38	25.39	156.74
<i>FDI Inflow</i>	80	5.27	4.27	-0.11	24.11
<i>Power of Left</i> <sup>42</sup>	75	0.31	0.42	0.00	1.00
<i>Unemployment</i>	79	9.06	5.77	2.34	34.84
<i>Democracy</i> <sup>43</sup>	73	5.13	5.36	-9.00	10.00
<i>Max Duration</i>	82	140.05	101.86	12.00	240.00
<i>Severance</i>	82	34.35	34.55	0.00	150.00
<i>No overtime</i>	82	0.06	0.24	0.00	1.00
<i>Approval</i>	82	0.18	0.39	0.00	1.00
<i>Notice</i>	82	6.61	5.82	0.00	30.00
<i>Regulation Index</i>	82	0.32	0.19	0.01	1.00

---

<sup>42</sup> The data source of *Power of the Left* data goes from 2002-2012, but our samples range from 2007-2013. There are 1840 out of 16,799 establishments surveyed in 2013 (located in eight countries). *Power of the Left* for these establishments are measured as the average of observations from 2008 to 2012.

<sup>43</sup> Countries are rated from -10 (hereditary monarchy) to 10 (consolidated democracy).

**Table A13: Labor Regulation Index**

Variable	Description
Difficulty of Hiring Indicators	The difficulty of hiring index measures the flexibility of contracts and the cost of hiring: (1) a country is assigned a score of 1 if the fixed term contracts are prohibited for permanent tasks; (2) a score of 1 is assigned if the maximum cumulative duration of a fixed-term employment relationship, including all renewals, is less than 3 years, 0.5 if 3 years or more but less than 5 years, and 0 if fixed term contracts can last 5 years or more. The difficulty of hiring index is the average of 2 values and scaled to 1.
Rigidity of Work Hours Indicators	The rigidity of work hours index measures the extent to which employers and workers accommodate/allow scheduling of nonstandard work hours and annual paid leave. It has five components: (1) a country is assigned a score of 1 if the workweek for a single worker cannot be extended to 50 hours per week (including overtime) for 2 months each year to respond to a seasonal increase in production; (2) a country is assigned a score of 1 if there are restrictions on night work; (3) a country is assigned a score of 1 if there are restrictions on “weekly holiday” work”; (4) a score of 1 is assigned if the maximum number of working days per week is 5 days or less; (5) a score of 1 is assigned if the mandatory working days of annual leave (i.e. vacation) with pay after 20 years of continuous employment for 2006-2009 (or 10 years for 2010-2014) is more than 21 days. Averaging the five dummy indicators and scaling the result to 1 gives a final index of rigidity of work hours.
Difficulty of Firing Indicators	The difficulty of firing index has 8 components: (1) whether it is illegal for an employer to terminate the employment contract of a worker on the basis of redundancy; (2) whether the employer must notify a third party before dismissing one redundant worker; (3) whether the employer needs the approval of a third party in order to dismiss one redundant worker; (4) whether the employer must notify or consult a third party prior to a collective dismissal; (5) whether the employer must obtain prior approval from a third party before a collective dismissal; (6) whether there is a retraining or reassignment obligation before an employer can make a worker redundant; (7) whether there are priority rules that apply to redundancy dismissals or lay-offs; (8) whether there are priority rules applying to re-employment. Questions (1) and (3) are the most restrictive regulations and so are assigned greater weight. An answer of “no” for question (1) gives a score of 10, and the remaining questions do not apply. An answer of “yes” for question (3) gives a score of 2. For other questions, if the answer is “yes”, a score of 1 is assigned. Adding the scores and scaling to 1 gives a final index of difficulty of firing.
Firing Cost Indicators	The firing cost index involves notice requirement, severance pay, and penalties for redundancy dismissal, expressed in weeks of salary. Adding the scores and scaling to 1 gives a final index of firing cost.
Labor Regulation Index	The labor regulation index is the average of the difficulty of hiring index, rigidity of work hour index, difficulty of firing index, and firing cost index. The labor regulation index is scaled to 1.