Attracting Investment: Governments' Strategic Role in Labor Rights Protection[1]

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What is the relationship between respect for labor rights and foreign direct investment (FDI)? This study explores this connection with an emphasis on the strategic role of governments in attracting FDI. We present a formal model demonstrating that governments can do so by setting the level of labor rights protection and, as a consequence, investors will choose to invest in the face of tough labor regulations or cease investing, anticipating that the costs of abiding by these regulations will be too high. The model also suggests that governments will have an incentive to implement labor regulations when enforcement costs are sufficiently low or the profits from investment are sufficiently high. Using data from developing countries across time, error correction models test the dynamic nature of these hypotheses and find support for them: strict labor laws tend to decrease inflow of FDI, but more FDI tends to encourage better labor practices.

On International Workers' Day 2012, President Benigno Aquino of the Philippines gave a celebratory speech in front of labor union and business association leaders. Perhaps the most notable part of the address was his response to the 125 Peso minimum wage increase demanded by labor unions earlier in 2012. Against the wishes of union leaders, President Aquino rejected the demand on the grounds that the proposed increase, about $3 a day, added to the current daily minimum wage of $9 to $12, would make the minimum wage in Philippines too high to attract and retain foreign investment, given that peer Southeast Asian nations, such as Indonesia, Vietnam, and Cambodia, maintain minimum wages far below $5 a day. He warned that the wage increase could turn away foreign investors as well as increase inflation and unemployment (Aquino 2012).[2]

The dynamics that pit labor unions against pro-business groups are at play in many developing and emerging economies, and a government often finds itself in the difficult position of balancing between appeasing local workers and attracting foreign businesses for economic development. The illustration above raises familiar questions, namely what is the relationship between respect for labor rights and foreign direct investment (FDI)? How does the strength of labor protections affect the flow of FDI into a host country and, in turn, how do FDI inflows affect the enforcement of labor regulations?

To a large degree, the relationship between human rights and FDI has been examined within the broader context of the linkage between human rights and economic globalization. These studies often frame the question to ask how global economic pressures affect respect for human rights as well as how rights protection affects economic forces. Yet, there is still little consensus over the relationship between rights protection and economic globalization. Optimists suggest that globalization provides opportunities for developing countries to thrive through the diffusion of best practices and democratic norms, thus enhancing their welfare. Skeptics argue that globalization engenders a race to the bottom (RTB), forcing governments to lower rights protections in an attempt to attract more investment and other economic opportunities. Yet, this emphasis on foreign investment as a force of globalization has perhaps led scholars to downplay the role of the government and to overlook the question of how the provision of rights by a government affects investors' decisions.

In this study, the exclusive focus centers on the relationship between workers' rights as a subset of human rights, and FDI, a component of economic globalization, as much of the disagreement in existing studies originates from the inclusion of different kinds of rights and multiple facets of globalization. To explore this relationship, we explicitly model and examine the interaction between

[2] Translation of President Aquino's speech from Tagalog to English is serviced by Google. News coverage was consulted to verify the translation: Christine O. Avendaño and Jocelyn R. Uy, "Aquino: Things could get worse with higher pay," *Philippine Daily Inquirer*, May 3, 2012. http://newsinfo.inquirer.net/186443/aquino-things-could-get-worse-with-higher-pay. Jim Gomez, "Workers demand pay hikes at Asia's May Day marches," *Macau Daily Times*, May 2, 2012. http://www.macaudailytimes.com.mo/asia-pacific/35521-Workers-demand-pay-hikes-Asias-May-Day-marches.html.

investors making decisions based on the investment environment and governments granting workers' rights protections. We bring the government, whose role in the literature has been largely discounted as a passive actor, back in by recognizing it as a strategic actor who weighs the benefits and costs of workers' rights protection against the economic opportunities that FDI presents.

This study makes a key distinction between *de jure* labor regulations and *de facto* labor protection practices and conceptualizes the interaction between a government and foreign investors in two stages. In the first stage, the government sets or revises labor laws in anticipation of FDI and FDI flows respond to the government's labor law provision. In the second stage, after investors make an investment decision, the government decides on the level of enforcement of its own labor regulations. Hence, the government responds to the level of FDI.

Modeling the interactions allows us to deduce empirically testable hypotheses on the relationship between labor laws, labor protection in practice, and FDI. We argue that FDI diminishes when labor laws become stricter or, in other words, offer greater protections to workers. This is because tougher labor laws decrease the expected profit from investments and drive away investors. This dynamic will precipitate a "RTB" through the failure of governments to grant legal labor protections for fear of driving investors to other, more cost-competitive markets. However, FDI, once made, improves labor protection in practice. Favorable market conditions promising higher expected profits, encouraging more FDI, incentivize investors to invest, even in the presence of labor law enforcement. Anticipating investments would continue, the government is better off by plugging the "labor protection loophole" with law enforcement. In addition, the model suggests that higher enforcement costs reduce the incentive to enforce the laws.

Using a data set of labor law and practice (Greenhill, Mosley, and Prakash 2009) and error correction models (ECM), we demonstrate that strict labor laws tend to decrease inflow of FDI, but more FDI tends to encourage better labor practices. The effect of labor laws on FDI inflows is substantial, having both immediate and long-term repercussions. FDI inflows, on the other hand, also exert significant immediate and long-term consequences on the gap between labor laws and practices. We also show that law enforcement costs, measured by the quality of government, widen the gap between labor laws and practices.

Our argument and empirical results suggest that FDI can be marginally beneficial once made. Competition among peer countries for hosting FDI will make it difficult for governments to enact stricter labor laws, but if a country is appealing enough to investors, then the government will face more incentives to enforce existing, even if inadequate, laws. Thus, more FDI inflows would result in narrowing the gap between *de jure* and *de facto* labor protections. The implication is that FDI will marginally benefit workers in the short run thanks to better enforcement of extant labor laws, but pressure to lure more FDI deters governments from raising *de jure* labor standards.

In the next section, we situate our research with respect to extant studies of economic globalization and rights protection. In the theoretical section, we present a game theoretic model, which captures the interaction between a government and investors. In the empirical section, we describe our data and the error correction estimation technique and present results from the analysis. We conclude with a discussion of the study's implications for the current debate on economic globalization and its consequences.

Disaggregating Globalization and Rights

While the focus on physical integrity rights has furthered our understanding of the relationship between the broader class of human rights and sources of economic globalization, the more nuanced relationship between economic rights and FDI is less well understood. A number of studies report that economic forces positively affect human rights, including trade and preferential trade agreements (Hafner-Burton 2005), FDI and portfolio investment (Meyer 1996; Richards, Gelleny, and Sacko 2001), and development assistance (Apodaca 2001).[3] These studies emphasize that multinational corporations, the main source of FDI, may urge governments to improve the rule of law, to protect the vulnerable, and to invest in social services. In addition, FDI and trade can bring best practices of human rights to host countries and some investors might care more about the quality of labor, not the cost (Mosley and Uno 2007). Alternatively, scholars have also reported negative effects of economic forces on human rights protection. IMF structural adjustment programs, for example, have been found to dampen respect for human rights (Abouharb and Cingranelli 2007). London and Williams (1988) also find a negative relationship between FDI and human rights, while others find no effect (Smith, Bolyard, and Ippolito 1999). Theoretical justifications for the negative or null effects of globalization on human rights gather around competitive pressures or repression arguments in which investors increase investment in politically stable countries maintained by political repression.

Recent studies that have specifically looked at the relationship between workers' rights and sources of economic globalization also report contrary results. Neumayer and de Soysa (2006) find countries that are more open to trade have fewer workers' rights violations and that FDI has no effect on the level of violations. Similarly, Payne (2009) reports that FDI does not affect respect for economic and social rights, after accounting for determinants of FDI. Alternatively, Mosley and Uno (2007) find that trade depresses workers' rights, while FDI is positively related to collective bargaining rights. Kim and Trumbore (2010) find that transnational mergers and acquisitions do have a positive and significant effect across a wide range of human rights indicators. Empirically, the authors distinguish between physical integrity and empowerment rights and make a causal argument which rests on the notion that human rights norms will diffuse from foreign owners to increase labor rights via new rights-supportive management practices. A similar diffusion argument is made by Greenhill et al. (2009), who argue that trading partners' labor regulations are transferred through international trade. In theories explicating a diffusion principle, there is often little role for the government, but in empirical analyses, studies examine how FDI affects governments' respect for human rights. Specifically, the diffusion hypothesis

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[3] Dreher, Gassebner, and Siemers (2012) find a positive effect of globalization on physical integrity rights; however, they use a composite measure of globalization, which encompasses political and social components.

seems to support an expansion of labor rights, since the transfer of practices would occur across foreign owners and investors to host country managers and workers with limited interaction between the investors and governments. Yet, the statistical results often suggest that there is a positive effect of FDI on the protection of rights by governments. In sum, while most studies within this research program posit that FDI is a determining factor for human rights protection, whether political, economic, or both, they often give short shrift to the role of the government as a strategic actor in attracting foreign investment.

Reversing the Causal Arrow: When Rights Affect FDI

Recognizing that the causal arrow may go in the other direction, Blanton and Blanton (2006, 2007, 2009) examine how respect for human rights affects investors' decisions. They find that human rights abuses, as measured by the Political Terror Scale, are negatively and statistically significantly related to FDI inflows (2006). Similarly, respect for human rights is positively and significantly correlated with FDI inflows, even after taking into account the reciprocal relationship between FDI and respect for human rights (2007). Most recently, disaggregating FDI by invested sectors, they find that human rights, measured by the CIRI index of government respect for physical integrity rights, are "a significant determinant of FDI across sectors that value higher skills and integration within the host society" (2009:469).

Following the work of Blanton and Blanton, we highlight the strategic role of governments in attracting investment. However, the diversity of measures for human rights as well as the emphasis on political rights may impede a more systematic understanding of the relationship between economic forces and rights protection. While many popular theoretical arguments relate protection or violation of workers' rights to investment inflows, few systematic theoretical or empirical studies examine the effect of workers' rights protection on FDI. It is our contention that despite the wealth of research in this general area, the theoretical underpinnings of this research program can benefit from narrowing the focus from globalization writ large to one facet—FDI—and from the broad category of human rights to a more specific category—labor rights.

In exploring the interaction between labor protection and FDI, we further differentiate between legal labor rights protection, or *de jure* rights, and rights protection in practice, or *de facto* rights. With the exception of Greenhill et al. (2009), studies of labor rights do not distinguish between legal and practical protections. We posit that legal rights are set in anticipation of FDI, then a host government decides whether to enforce labor regulations, creating a potential gap between labor laws and their protection in practice. Combining the two or exclusively focusing on one over the other can possibly lead to an incomplete understanding of labor rights protection.

Formalizing FDI and Labor Enforcement

We turn to a game theoretic analysis to deduce hypotheses on the relationships between labor laws, labor practices, and FDI. The model presented here captures the strategic interaction between a government and foreign investors concerning profit-making and respect for both *de jure* and *de facto* labor rights. In the model, the government in anticipation of FDI sets labor laws, either by revising them or maintaining the status quo. After observing FDI inflows, the government decides whether to enforce the laws. An important strategic concern for the government is that it is uncertain about the type of an investor it faces: whether the investor is sincere or opportunistic. A sincere investor is defined as an investor with the intention to abide by the laws set by the government even in the absence of enforcement. An opportunistic investor, by comparison, is one who is willing to take advantage of the lack of enforcement of labor laws in order to pursue more profit. The opportunistic investor will adhere to the labor laws only when the government enforces them. Thus, if the government were certain that it faced the sincere type, it would be in its best interest to spare its resources for law enforcement as the laws would be followed regardless of enforcement. On the other hand, if the government were certain that it faced the opportunistic investor, it would be in its best interest to enforce the laws, provided that enforcement costs are not prohibitive. But, being uncertain over which type of the investor it faces, the government needs to decide whether it is willing to bear the cost of enforcing its own labor laws.

It is important to distinguish between investor types because it helps us understand why a government often chooses not to enforce the labor laws that it has enacted, allowing for a gap between labor law and practice. If we assume all investors are opportunistic, then the government should always enforce labor laws, barring prohibitively high enforcement costs, erasing the gap between labor law and practice. If we assume that all investors are sincere, again there would be little gap, as sincere investors will abide by labor laws regardless of enforcement activity. Thus, assuming only one type of investor cannot explain the gap between labor law and practice. We provide an answer to the puzzle of the gap between labor law and practice by incorporating the two types of investors and introducing incomplete information such that the government does not know which type of investor it faces.

Skeptics may contend that all investors are opportunistic; yet, we think that our assumption about the two types of investors is theoretically justified on two grounds. First, even if all investors are indeed opportunistic, our model is still relevant in that it is general to subsume the case of only opportunistic types. The particular case of all opportunistic investors will feature the probability of a sincere type, $\alpha = 0$. Second, while we are agnostic about the intentions of investors, we believe that there are investors who are sincere—perhaps not because they are ethical or altruistic, but because they are interested in maintaining a good reputation to maintain and increase profits. Even without formal, legal consequences, some investors may try to avoid breaching labor laws for reputation's sake, as there are various NGOs and consumer groups that monitor and publicize working conditions and labor practices of MNCs and their subsidiary bodies.

Model

Sequence of Moves

Nature randomly selects the type of investor, which is unknown to the government. Let the probability of being a sincere type investor be α. Naturally, the probability of being an opportunistic investor is $1 - \alpha$. After nature selects the type of investor, the following sequence of

moves is played between the government and the investor:

- The government sets the labor laws $L \in [0, \bar{L}]$. When $L = 0$, the labor laws protecting labor rights are virtually non-existing. When $L = \bar{L}$ the labor laws provide the maximum protection for workers.
- The investor decides to invest, $D \in$ [YES, NO]. If the investor decides not to invest, the game ends with no investment made. If the investor decides to invest, investment flows move in and the government makes the next move.
- The government decides to enforce the laws, $E \in$ [YES, NO].

In reality, the government does not change the labor laws every time it faces a different investor. Yet, one can think of the government as always reserving the right to enact newly drafted labor laws. But, for most cases, the government will decide not to change the laws or decide to uphold the status quo. Thus, the game can be considered as being latently played every time new investment is made, with actual law changes infrequently occurring. The game is depicted in Figure 1, and the payoffs are summarized in Table 1.

Payoff to the Government

When the investor decides not to make an investment, the status quo payoff for the government is set to 0. When the investment is made by the investor and the labor laws are enforced by the government, the government receives a part, L, of the profit made with the investment, $E(D)$. L captures the labor laws, the level of labor rights formally protected by the law, and can be thought of as a "tax" on the profit that goes toward welfare enhancement for workers who serve as the revenue base for the government. L includes standards for compensation and benefits that should be provided by investors, such as minimum wage laws, contributions toward healthcare and other social safety nets, and related laws guaranteeing unionization and collective bargaining. In addition, L covers such restrictions as forced or child labor and hiring and firing related regulations. Hence, when L increases, it directly—through revenues from taxation and benefits—and indirectly—through enhanced welfare of people—benefits the government. Given the set labor laws, when the government actively enforces the laws by promoting and advertising the labor laws, monitoring labor practices, and punishing labor malpractices, the government bears the cost, c.

When the government decides not to enforce the labor laws, its payoff varies depending on the type of the investor with which it interacts. Facing a sincere investor, the government receives a part, L, of the profit made with the investment, $E(D)$ without paying the cost of enforcement. This is because the sincere investor is still willing to abide by the laws even when there is no risk of being caught for violating the laws.[4] When facing the opportunistic type, the government receives ε approximating 0 even when the investment is made, as the opportunistic
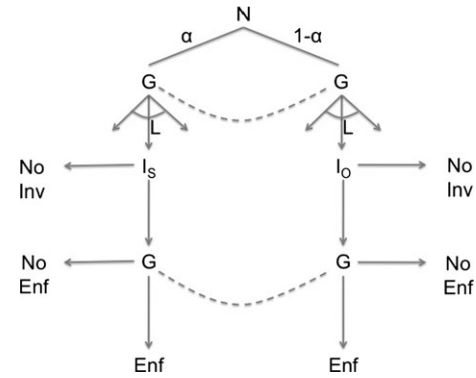

FIG 1. Game Tree

TABLE 1. Payoff to Government and Investor

Investment/Enforcement	Government	Sincere Investor	Opportunistic Investor
No/not relevant	0	0	0
Yes/no	$E(D)L$ or ε	$E(D)(L_B - L)$	$E(D)$
Yes/yes	$E(D)L - c$	$E(D)(L_B - L)$	$E(D)(L_B - L)$

investor does not follow the labor laws and thus, does not pay a "tax." This can be thought of as compensating workers with less than legally defined minimum wage and providing fewer legally entitled benefits.[5]

Payoff to the Investor

When the investor decides not to invest, the payoff for both types of investors is normalized to 0. Zero payoff can be taken as the average expected return from alternative investment opportunities. When the investor invests and the government enforces the labor laws, the investor enjoys "after tax profits," $(L_B - L)$ of $E(D)$. L_B here denotes the level of labor laws that makes investors break even and be indifferent between investing in the host country and seeking alternative investment opportunities. As L gets closer to L_B, the return for investment shrinks and when L equals L_B, investors consider it no better to invest in the country than to make an alternative investment. Thus, we assume that as labor laws become stricter, providing more protections and better compensation for workers, investors' profit margins decrease. For the sincere investor, the payoff does not change even if the government decides not to enforce the labor laws. For the opportunistic investor, the payoff improves when the government decides not to enforce the labor laws because it can evade paying a tax and takes all the profit $E(D)$ made with the investment.

Equilibrium

The game is one of incomplete information, thus is solved using the Perfect Bayesian Nash Equilibrium. The

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[4] When we say a government does not enforce the laws, we do not mean that a government stops its routine functions of law enforcement or judicial interpretation. Rather, what we mean by "not to enforce the labor laws" is that a government is not making extra, purposeful, and fiscally costly attempts to proactively monitor and enforce the labor laws. We also note that we make the enforcement choice as a dichotomous variable because we want to present the simplest model and not dichotomizing the enforcement choice does not yield any qualitatively distinct insights.

[5] In reality, there are other benefits that the government receives once FDI is made. These benefits include promotion of economic development and taxing foreign corporations. These benefits are not included in the government's payoff because these are benefits the government enjoys regardless of the enforcement decision, thus do not factor in the government's strategic calculation of enforcing labor laws.
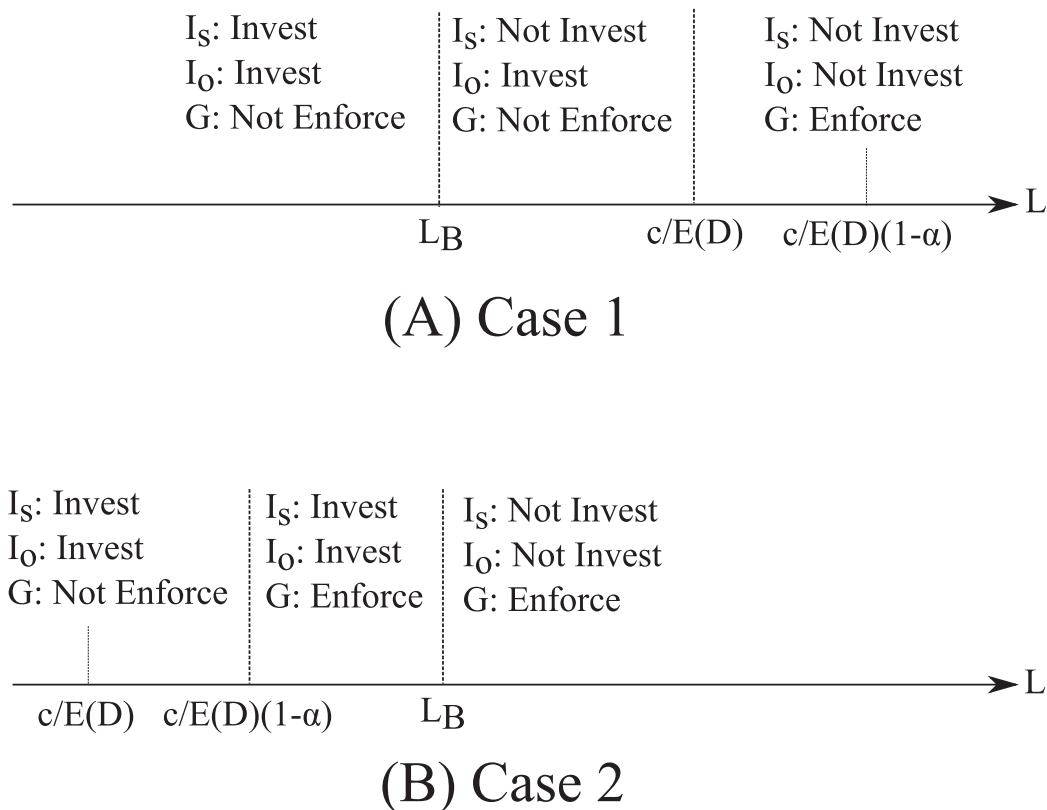
I_S: Invest I_S: Not Invest I_S: Not Invest

I_O: Invest I_O: Invest I_O: Not Invest

   G: Not Enforce   G: Not Enforce   G: Enforce

──► L

                        L_B c/E(D)   c/E(D)(1-α)

(A) Case 1

I_S: Invest I_S: Invest I_S: Not Invest

I_O: Invest I_O: Invest I_O: Not Invest

   G: Not Enforce   G: Enforce   G: Enforce

──► L

   c/E(D)   c/E(D)(1-α) L_B

(B) Case 2

FIG 2. Equilibrium Outcomes

TABLE 2. Summary of Outcomes

Condition	Gov: Labor Laws	Sincere Investor	Opportunistic Investor	Gov: Enforcement
Case 1	L_B	Yes	Yes	No
Case 2	L_B	Yes	Yes	Yes

government updates its belief about the type of the investor when it decides to enforce and in equilibrium, all the actors choose to optimize their strategy consistent with their belief. Figure 2 and Table 2 summarize the equilibrium.[6]

Proposition 1: *In all possible cases, there exists a threshold above which investors, regardless of their type, cease to invest.*

Note a general pattern of the relationship between labor rights and investment decisions in Figure 2a,b. Corresponding to the "RTB" hypothesis, when *L* increases, or labor laws become more stringent, investors discontinue their investment, but the sincere type does so sooner than the opportunistic type.[7] Rising labor costs make a

country less appealing to investors, especially when there are other countries that can present similar investment opportunities. This RTB dynamic was reflected by the Philippine president when he rejected labor unions' calls for a minimum wage raise in fear of driving foreign investment away to other Southeast Asian nations. Our first hypothesis restates the RTB relationship in terms of investor behavior toward the passage of more stringent labor laws:

Hypothesis 1: *As the government increases labor protections, FDI inflows will decrease.*

Proposition 2: *Comparing Case 1 and Case 2, the equilibrium where the government enforces the labor laws is more likely when c is smaller or expected profit from the investment, E(D) is larger.*

Given the choices presented to the government, what is the optimal level of labor laws that the government chooses? The government chooses the labor laws that maximize its payoff. Depending on the cost of law enforcement and the expected profit of investment, the two equilibria summarized in Table 2 emerge and conditions for each explain a potential gap between the labor laws and their practices, assuming that labor practices are a positive function of law enforcement efforts by the government. When law enforcement cost, *c*, increases or expected profit from the investment, *E(D)*, remains marginal, the first equilibrium is likely to ensue and the government is not willing to enforce the labor laws. This is because enforcing the labor laws will either be too fiscally costly for the government or drive away investment. By

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[6] A detailed technical discussion is included in the Appendix S1.

[7] In Case 1, the sincere investor discontinues when the labor laws reach the break-even point where investing in the country presents no better return than alternative investment opportunities. The opportunistic investor continues to invest until the labor laws reach the point where the government starts to enforce the laws. In Case 2, both the sincere and the opportunistic investors are willing to invest when the labor laws fall short of the break-even point. As soon as the labor laws become more stringent than the break-even point, both types withdraw their investment.

contrast, when law enforcement costs drop or the investment is deemed highly profitable thanks to favorable market conditions, the second equilibrium should follow, where the government makes an effort to close the gap between the labor laws and labor practices by enforcing the labor laws and investors still find it better to invest in the country. Thus, the enforcement decision is made strategically by the government in the presence of uncertainty over the type of investor. By comparing the two equilibria, the following hypotheses on the relationship between the cost of enforcement, expected investment profits, and the enforcement effort by the government are deduced:

Hypothesis 2: *When the cost of law enforcement increases, the government has less incentive to enforce the labor laws, allowing a larger gap between labor laws and practices.*

Hypothesis 3: *When the expected investment profit is lower, the government has less incentive to enforce the labor laws, allowing a larger gap between labor laws and practices.*

In the equilibria, the government sets the labor laws such that it can attract both sincere and opportunistic investors. As the RTB hypothesis suggests, the government is implicitly pressured not to set the labor laws too strictly in order to host maximum investment. Furthermore, the government's decision of enforcing labor rights depends on the cost of law enforcement and the attractiveness of the country to investors. If the law enforcement cost is low and the country presents high profitability to investors, for instance with better infrastructure, geographical advantages, and large consumer markets, the government finds it beneficial to enforce the labor laws knowing that investors are likely to stay. By comparison, if law enforcement is too fiscally costly for the government, or if the country's market only presents marginal profitability such that active law enforcement drives investors away, the government chooses not to enforce the laws. The end result is increasing division between two country groups. Countries enjoying favorable market conditions—locational advantages, adequate infrastructure, and other intangible and tangible assets—with an efficient law enforcing bureaucracy may close the gap between *de jure* and *de facto* labor rights, while the rights and practices gap for countries lacking investor appeal and without a well-functioning law enforcement bureaucracy will remain.

It is difficult to directly observe the expected investment profit perceived by investors. In our empirical analysis, we proxy the expected investment profit with actual investment. Assuming that investment drops when the expected profits, influenced by factors not incorporated in the model, become lower and investment increases as the expected profits become higher, we can expect that the discrepancy between *de jure* and *de facto* labor rights protection caused by a lack of enforcement widens when less investment is made and that the gap narrows when more investment is made.

Data and Methodology

Given the implications of the game theoretic model, the first empirical analysis should evaluate how governments anticipate investor strategies by setting labor laws. In this case, we suggest that the level of labor protections should determine whether or not an investor will situate their business in the host country. Consistent with the theoretical prediction, we propose that new FDI follows changes in labor laws. Governments may set labor laws in anticipation of FDI inflow—thus FDI "influences" labor laws—but empirically we should observe that FDI responds to the changes of labor laws. The second empirical model assesses how the gap between labor laws, on the one hand, and labor practices (or the enforcement of those laws), on the other, is affected by the investor's decision to invest in the particular country. Theoretically, we assert that a government's decision to enforce labor laws—resulting in the gap between labor laws and practices—responds to the level of FDI. Thus, the dependent variable for the first case is investment inflows and in the second case the dependent variable is the gap between labor laws and labor practices. We evaluate these relationships using yearly data for 100 developing countries from 1986 to 2002. The focus here is on developing economies as industrialized economies tend to be net exporters of FDI.

Empirically, most studies assessing rights and FDI analyze cross-sectional time-series data with a particular kind of commonly used autoregressive distributed lag model (ADL). For instance, Kim and Trumbore (2010) use a dead start model and Blanton and Blanton (2006, 2007, 2009) use a partial adjustment model, a static model, and a dead start model.[8] However, commonly employed ADLs impose particular restrictions that may not be justifiable. For instance, a partial adjustment model assumes that the coefficients of lagged independent variables are zero, which might be inappropriate if one believes that the effects of the independent variables might be more prominent in future periods. Similarly, a dead start model assumes that the coefficients of contemporaneous independent variables are zero, which might not be appropriate if the effects of the independent variables are short-term. To cope with this issue, we use a general ECM.[9]

The ECM is a dynamic model that estimates the rate at which y will change to return to equilibrium after a change in x (De Boef and Keele 2008). Our data does not exhibit cointegration; however, this does not indicate that ECMs should not be applied or are not useful.[10] On the contrary, ECMs may be applied to a wide range of time-series models as they are equivalent to more commonly used general ADLs (De Boef and Keele 2008). In comparison with ADLs, the main advantage of an ECM is that it provides closer ties to the theory presented in the game theoretic model. Since our model implies a dynamic process between governments and investors, in particular, the period in which investments will increase or decrease in response to government action, an ECM is particularly useful. Additionally, the ECM directly estimates the error correction rate, which is key to understanding the equilibrium relationship between the dependent and explanatory variables. For these reasons, we estimate an ECM with country fixed effects and report and interpret both the short-term and long-term effects of labor rights and practices on the level of incoming FDI and, subsequently, the effects of FDI and bureaucratic quality on the gap between labor laws and labor practices.

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[8] For a discussion of different types of ADL models, see De Boef and Keele (2008).

[9] We test the dead start restriction, which assumes that the coefficients on the immediate term variables are zero. A *t*-test on $\beta_0 = 0$ suggests that this restriction is invalid and we should estimate a more general model.

[10] We tested for (non)stationarity and rejected the null hypothesis of non-stationarity ($p < 0.01$).

Foreign Direct Investment

The dependent variable in the first model is the amount of new foreign investment in a single year, measured as the level of *FDI inflows* as a percentage of a country's GDP.[11] While other measures of FDI do exist, inflows capture the decision of investors to commit to the operation and management of an enterprise outside the investor's home country. Stocks, on the other hand, provide a cumulative measure of the level of investment and, as a result, are less sensitive to yearly changes. While we focus on inflows, all models have been estimated with stocks and report similar results in substance and significance.[12] FDI inflows serve as an explanatory variable in the second part of the empirical analysis with the gap between labor laws and practices, capturing the level of enforcement, as the dependent variable.

Labor Rights

Building upon Greenhill et al. (2009), who suggest that a government's decision to adopt labor laws and the decision to abide by those laws are differently determined, we investigate separately labor laws and labor practices. These measures are derived from a combined scale of labor rights that includes elements of both laws and practices compiled by Kucera (2002) and Mosley and Uno (2007) and disaggregated into the two components by Greenhill et al. (2009). The separation of laws from practices captures the *de jure* and *de facto* aspects of a country's level of respect for collective labor rights: *labor laws* gives an indication of the extent to which laws have been put in place to safeguard collective labor rights, such as the rights to organize, bargain collectively, and strike. *Labor practices* provides an indication of the degree to which labor rights are violated in practice (Greenhill et al. 2009:675). For example, a typical labor law from this scale is the exclusion of certain types of workers to collectively bargain (a violation of which incurs a score of 1.75 out of a total of 28.5), where labor practices include the intervention of authorities into collective bargaining (a violation of which incurs a score of 1.5). The scale is constructed such that more serious violations are weighted more heavily than less severe ones and any individual violation ranges from 1 (previous authorization required for joining union federations) to 2 (excluding sectors of workers from union membership). In our data, the scale has been reversed for ease of interpretation such that higher values represent greater levels of respect for labor rights.[13] In the first set of models, labor rights are included as explanatory variables.[14]

Following from the theoretical predictions of the model, the second set of empirical models seeks to explain the gap between labor laws and labor practices. To obtain a measure of the labor gap, we subtract the value of a country's score on labor practices from its labor laws value. In most cases, countries tend to have higher values (better protections) for laws than they do for practices. Thus, the difference serves as an indicator of whether governments tend to enforce the laws that

TABLE 3. Summary Statistics

	Mean	SD	Min	Max	Obis
FDI inflows	1.78	2.79	−11.46	33.37	1,323
Labor gap	0.49	6.55	−26	25.5	1,242
Labor laws	21.74	5.27	1.5	28.5	1,332
Labor practices	20.94	4.68	1.5	27.5	1,332
Trade openness	4.09	0.54	2.41	5.91	1,332
Wealth	7.96	1.52	−1.50	11.04	1,329
Growth	3.52	4.66	−28.10	33.99	1,324
Fuel exports	18.86	30.20	0	99.66	1,332
Democracy	1.06	6.78	−10	10	1,332
Physical integrity	4.04	2.10	0	8	1,242
Civil war	0.20	0.40	0	1	1,242
Bureaucratic quality	0.49	0.16	0.06	0.92	1,242
Labor participation	64.12	10.42	41.6	89.3	1,242
Market size	24.22	2.05	14.60	29.01	1,313

they have passed. Lower values represent a smaller enforcement gap. One potential issue with this measure is that the rights and laws coded for do not exactly mirror each other and so the existence of a law is not necessarily coupled with its adherence or violation. We contend, however, that the measurement of this variable is an approximation of the enforcement gap because the range, mean, and standard deviation of the laws and practices scale are virtually identical. Summary statistics can be found in Table 3.

Quality of Governance

Our theoretical model suggests that increasing enforcement costs should result in a wider gap between labor laws and practices. One way to measure the costs of enforcement without directly collecting data on the enforcement of individual laws for every country is to account for *bureaucratic quality*. Well-institutionalized bureaucracies can insulate policies from shifting political winds and government upheavals. Moreover, corruption within a government can lead to an inability or unwillingness to enforce laws on the books and can make law enforcement more costly. According to the Politcal Risk Services Group (2011), which publishes the International Country Risk Guide, "Countries that lack the cushioning effect of a strong bureaucracy receive low points because a change in government tends to be traumatic in terms of policy formulation and day-to-day administrative functions." Thus, the more independent the bureaucracy from political entanglements, the better able it will be to enforce regulations. This variable ranges from 0 to 1, with higher values indicating better quality (Teorell et al. 2011).

Controls

We incorporate a number economic and political variables that are generally included in standard gravity models predicting FDI inflows. As a location-specific factor, *market size* has been shown to be a strong, positive predictor of inward FDI, as larger markets offer increasing returns to scale (see, for example, Dunning 1973; Kok and Ersoy 2009).[15] We would expect that a country's

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[11] UNCTAD (2010), World Bank (2008).

[12] Results are available as supplementary material.

[13] Further coding details can be found in Table A1 in the Appendix of Greenhill et al. (2009).

[14] Labor practices are included as a control variable in Model 1 and do not change the substantive results of the model when excluded.

[15] Market size is measured as a country's gross domestic product, logged.

openness to international markets would increase the likelihood that investors will view that country as having a "business friendly" environment. We posit that *trade openness* will increase the flow of FDI into a country. As countries become more developed, they have more productive workers who are less concerned with day-to-day survival and have more disposable income. Greater *wealth*, or per capita GDP, should create greater consumer demand, a desirable feature in a FDI host country. *Growth* is indicative of a healthy economy, and emerging markets tend to be those countries that exhibit the greatest potential for investors. Thus, growth should be associated with higher levels of FDI.[16]

Whether a country is a major exporter of oil may carry implications for FDI inflows as well as the labor enforcement gap. We posit that *fuel exports* as a percentage of a country's merchandise exports may depress FDI.[17] Fuel exporting countries tend to experience a current account surplus, which should be compensated with a capital account deficit of which FDI is a major component. Thus, an increase in fuel exports may be negatively correlated with FDI inflows. In terms of assessing the labor gap, natural resource endowments and oil, in particular, may exert a negative effect on labor practices, increasing the discrepancy between labor laws and the enforcement of those laws. Major oil exporting countries tend not to rely upon labor-intense sectors as in other developing economies where manufacturing is paramount. Further, fuel exporting countries tend to rely on foreign workers for activities related to petroleum processing. These workers, often contracted from the country where the multinational enterprise is based, tend to be insulated from the local population and enjoy benefits and privileges that are not applied to domestic laborers (Watts 2005).

Extant literature has suggested that a country's regime type may have an effect on the level of FDI it can attract. Two arguments in particular run contrary to theories positing that authoritarian governments are in a better position to attract FDI because they can offer better deals to potential investors in terms of depressing wages and union activity. Jensen (2003) suggests that democratic governments provide less risky investment environments and are thus better able to attract FDI than their authoritarian counterparts. In a study on the level of tax incentives to foreign investors, Li (2006) offers that nondemocracies provide more incentives to investors, which are interpreted as state intervention in the market, which could scare off potential investors. To assess this relationship, we include the Polity IV measure for *regime type* (Marshall and Jaggers 2006).

In the labor gap models, we also control for the presence of *civil war* in the host country. Civil war data were originally obtained from the UCDP/PRIO Armed Conflict Database and adapted according to Greenhill et al. (2009) where "intermediate" or "high intensity" conflicts were coded as "1." We would expect that when a country is experiencing an internal conflict, a government's ability to enforce its own laws and regulations is impaired. Furthermore, if civil war divides a country into factions, it might be part of the government's strategy to crack down

on the rights of its labor force. The discrepancy between labor laws and practices may also be affected by the level of human rights protection. The rights of workers to assemble and unionize are affirmed by the Universal Declaration of Human Rights (UDHR), which also sets out expectations for governments' respect of physical integrity, political, and civil rights. We would expect that governments that respect human rights, more generally, to be better enforcers of labor rights. We measure human rights using the CIRI (Cingranelli and Richards 2010) index of government respect for *physical integrity* rights. Finally, we control for the labor participation rate within a country, as we would expect that higher rates of participation would signify greater equality in the labor market.[18] The following section presents the results of the statistical tests evaluating these hypotheses.

Results and Discussion

Model 1 evaluates hypothesis 1 from the game theoretic model, which suggests that as labor laws become more demanding, the flow of FDI will decrease. Model 1 is a nonrestrictive or general ECM model equivalent to the general ADL.[19] Coefficients in the ECM should be understood as changes in the dependent variable and reports a short-run effect, the immediate effect of the covariate, ΔX_t, on Y and a long-run effect, the covariate at $t-1$ on Y. The coefficient for the lagged dependent variable is the error correction rate, $\alpha^* = -0.71$ and implies an equilibrium relationship between FDI inflows and the covariates in the model.

Investors' Reaction to Government's Labor Rights

Table 4 reports the results for the model predicting changes in FDI. The ECM lends support for the hypothesized relationship between FDI and the level of labor rights in a country (hypothesis 1). The model predicts that the immediate effect of labor laws is negative and significant, which suggests that as governments pass more stringent labor laws, potential investors will tend to move away from investing in that country.[20] To assess whether this effect is felt over future time periods, we report the coefficient on the long-run effect (X_t-1). The long-run effect for labor laws does not achieve statistical significance, indicating that the effect of labor laws on FDI is entirely immediate. The immediate effect of stricter labor legislation on FDI may translate into a loss of millions of investment dollars for a given country: take, for instance, the cases of Togo and Peru. From 1994 to 1995, Peru increased the stringency of its labor regulations by

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[16] Trade Openness is measured as the sum of a country's imports and exports as a share of its GDP. Growth is the difference in GDP from the previous year. All economic indicators, unless otherwise noted, are taken from the World Bank's World Development *Indicators*.

[17] Due to a large number of dropped cases, we imputed missing values for the variable fuel exports.

[18] Labor participation is measured as the percentage of total population over the age of 15 that is economically active.

[19] We estimated a similar model by applying the common dead start restriction which assumes that $\beta_0 = 0$ or that there is no contemporaneous effect of x on y. If the restrictions of the dead start model are valid, then β_0^* should not be significantly different from zero in the ECM (De Boef and Keele 2008:196). We find that β_0^*, $\Delta Labor Laws$, is significant. Further support for using a general model is given by Akaike's Information Criterion (AIC) goodness-of-fit test, which suggests that the dead start restriction is not consistent with the data, as the general ADL model reports a lower AIC.

[20] To assess the possibility that FDI is driving labor rights and not the reverse, we estimate a two-stage least squares regression in which we instrument the main independent variable labor laws using a measure of the labor practices of a country's regional neighbors (Greenhill et al. 2009). The results of the instrumental variable (IV) regression support our above analysis, namely that labor laws are predicted to decrease FDI inflows. The results of the IV regression are included as Appendix S3.

TABLE 4. Foreign Direct Investment (FDI) Inflows: Restricted and
Error Correction Models

DV: Δ in FDI/GDP	Model 1	SE
FDI inflows$_{t-1}$	−0.71**	0.10
Δ Labor laws	−0.05*	0.02
Labor laws$_{t-1}$	−0.03	0.05
Δ Labor practices	0.03	0.02
Labor practices$_{t-1}$	0.04	0.04
Δ Market size	1.46	20.90
Market size$_{t-1}$	3.28*	1.38
Δ Trade openness	1.38*	0.66
Trade openness$_{t-1}$	0.72	0.57
Δ Wealth	−1.04	13.05
Wealth$_{t-1}$	−1.79	1.41
Δ Growth	0.04	0.14
Growth$_{t-1}$	0.06	0.14
Δ Fuel exports	−0.05*	0.03
Fuel exports$_{t-1}$	−0.02	0.02
Δ Democracy	0.04	0.04
Democracy$_{t-1}$	−0.01	0.05
Constant	−66.99**	24.90
Long-run multiplier		
Market size	4.61**	1.52
Obs.	1,194	
Countries	100	
R^2 (within)	0.37	

(Notes. Robust standard errors in parentheses. All models estimated with country fixed effects. Two-tailed tests. *< 0.05, **< 0.01).

approximately 1 standard deviation (SD) (5 points) to 20, this increase corresponded to a 2.5 percentage point decrease in inward FDI as a share of GDP, or approximately $932 million. In the same period, Togo decreased its labor regulations from 26.5 to 21.5 and also experienced an 10% increase in foreign investment or about $10 million. We find no statistically significant effect for labor practices in either the short-term effects or the long-run effects. This result suggests that investors are more sensitive to labor legislation than they are to the enforcement of those rights once they exist. This prediction offers further justification for differentiating between

de jure and *de facto* respect for labor rights, and as we posit, *de jure* rights seem to primarily matter in attracting FDI.

In most cases, the control variables do not reach standard levels of statistical significance; however, there are a few results worth noting. When predicting FDI, market size is generally one of the strongest predictors of inward investment flows, but in the dynamic model presented here, the immediate effect of market size is not statistically significant. However, a very different picture emerges with respect to the long-term effect of market size, where the effect is positive and statistically significant, indicated by the significance of the lagged market size variable. To estimate the total effect of market size on FDI over future time periods, we calculate the long-run multiplier (LRM) and report it at the bottom of Table 4. What is particularly notable is that the LRM for market size is rather large, 4.61, in relation to its coefficient, and significant. By calculating the median lag, we can get a better sense of how long it will take to see movement in FDI flows from a change in market size or approximately how long it will take for the process to return to equilibrium. Figure 3 depicts the change in FDI across future time periods. What we observe is that in the initial time period approximately 30% (1.46) of the total effect of market size exerts an effect. The median lag occurs in the next period where 48% (2.24) of the effect occurs and still another 14% of the effect occurs in the third time period.

The effects of the remaining variables that achieve statistical significance are almost completely contemporaneous. The immediate effect of trade openness is statistically significant and positive on the level of FDI. If trade, as a percentage of a country's GDP, increases by half a percentage point (about 1 *SD*), FDI inflows as a share of GDP are predicted to increase by just over two-thirds of a percentage point. Another short-term effect occurs in fuel exports where a 5 percentage point increase in fuel exports is predicted to drive down FDI inflows by a quarter of a percentage point.

Taken together, these results provide support for hypothesis 1 that investors will react to an increase in the stringency of labor regulations by divesting their
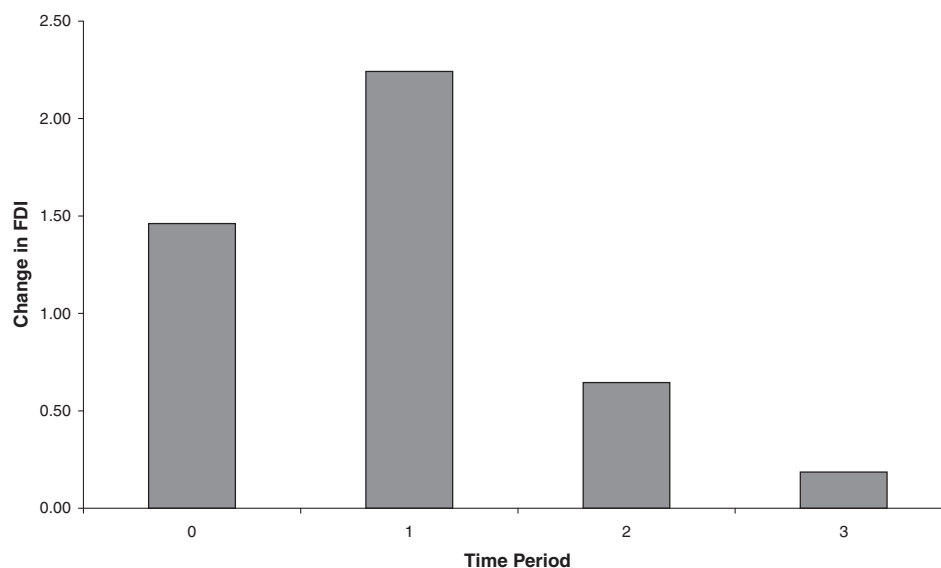

FIG 3. Lag Distribution of Market Size

resources. This model demonstrates the importance of considering a dynamic model when parsing the effects of typical FDI predictors, such as market size, which have important long-term consequences for investment and the immediate effects of explanatory factors such as the stringency of labor regulations, which have received less attention in the literature. Labor laws highlight the importance of considering the complex and interactive nature of the relationship between governments and potential investors. Following from the second phase of the game theoretic model, we test hypotheses 2 and 3, addressing the nature of the enforcement gap that develops as a result of the government's decision to enforce existing labor regulations.

When does the Government Enforce Labor Rights?

The interaction between governments and investors suggests that as the costs of enforcement increase (hypothesis 2) or the expected profit from investment drops (hypothesis 3), a government will be less inclined to enforce its own labor regulations and the gap between laws and practices should increase. Models 2 and 3 in Table 5 test these hypotheses by predicting the size of the labor gap using the level of investment and the quality of a government's bureaucracy. We find that the contemporaneous effect of FDI inflows is negative and significant across both models, indicating that as foreign investment increases, the gap between labor enforcement and labor rights is predicted to decrease. This result corresponds with the equilibrium prediction of the theoretical model. Taking into account enforcement costs in Model 3, bureaucratic quality behaves according to our theoretical predictions. As enforcement costs decrease, or as bureaucratic quality increases, the labor gap is pre-

dicted to decrease. We suggest that this is because governments with more efficient, professional bureaucracies should be better insulated from political manipulation and should find themselves in a better position to carry out existing regulations more efficiently.

Substantively, when FDI increases by three percentage points (about 1 SD), the enforcement gap is predicted to decrease by just over a third of a point on the labor rights scale in the short-term. The LRM, -0.09, shown at the bottom of Table 5, is also significant for FDI in Model 2, and the same three-point increase in FDI will disturb the equilibrium relationship causing the labor gap to be too low, resulting in the labor gap increasing 0.09 points over future periods. This suggests that the effect of FDI on the labor gap is mostly immediate, as shown in Figure 4.

A country's physical integrity score is of particular importance when predicting the gap between labor laws and practices. The models predict that human rights will have slightly greater long-term effects over the size of the labor gap. Model 3 shows that for a two-point increase in the physical integrity scale, better human rights protection, the labor gap will decrease by 0.62 immediately. This increase in physical integrity rights will then result in an additional decrease of 0.72 points in the labor gap scale over future periods. We can get a sense of this effect at future periods by calculating the median lag for physical integrity, where over 50 percent of the adjustment toward the long-run equilibrium is felt by the second time period. Contrast this with the effect of bureaucratic quality in Model 3, as shown by Figure 5. In this case, the median lag occurs in the first time period, where 97% of the adjustment toward equilibrium occurs. Thus, a 1 SD increase in bureaucratic quality, about 0.16 points on a 0–1 scale, is predicted to decrease the size of the labor gap by 0.83 points in the short-term. This increase in bureaucratic quality will cause the labor gap to be too large and the labor gap will decrease by 0.02 over future periods.

The short-term effect for civil war in Model 3 suggests that internal conflict decreases the labor enforcement gap. This result is puzzling, as we would expect conflict to increase the enforcement gap, as the government's ability to secure labor rights would be diminished during times of political upheaval. One possible explanation for this result is that governments facing civil unrest may curtail labor rights. In countries where labor practices lag behind labor laws, which in most countries, limiting rights would narrow the gap, albeit for the worse in terms of workers' rights.

The ECMs provide dynamic information about the relationship between labor rights and investment, demonstrating that explanatory factors can vary widely in how their effects are distributed over time. Modeling panel data in this way allows us to assess whether the effects of a particular variable are contemporaneous or distributed over future time periods. This analysis reveals a mix of short- and long-run effects. When we assess whether labor laws affect the level of FDI inflows, we find that the short-run effects dominate for the labor laws variable and are associated with an immediate decrease in FDI. This is also the case for trade openness, which increases FDI and fuel exports, which exhibits a negative relationship. By contrast, market size demonstrates its strongest effect not in the immediate term, but in the following time periods, where larger markets are predicted to increase the flow if FDI.

TABLE 5. Labor Gap Models

	Model 2	Model 3
Labor gap$_{t-1}$	-0.82 (0.05)**	-0.80 (0.05)**
Δ inflows	-0.12 (0.04)**	-0.10 (0.04)**
FDI inflows$_{t-1}$	-0.07 (0.05)	-0.06 (0.05)
Δ Bureaucratic quality	–	-5.21 (2.59)*
Bureaucratic quality$_{t-1}$	–	-4.28 (2.04)*
Δ Wealth	-4.52 (3.68)	-3.15 (3.86)
Wealth$_{t-1}$	1.03 (1.92)	2.06 (1.96)
Δ Fuel exports	-0.02 (0.02)	-0.02 (0.02)
Fuel exports$_{t-1}$	-0.02 (0.02)	-0.02 (0.02)
Δ Labor participation	0.11 (0.22)	0.13 (0.22)
Labor participation$_{t-1}$	-0.17 (0.09)	-0.14 (0.09)
Δ Democracy	-0.03 (0.05)	-0.02 (0.06)
Democracy$_{t-1}$	0.02 (0.05)	0.02 (0.05)
Δ Physical integrity	-0.39 (0.09)**	-0.31 (0.09)**
Physical integrity$_{t-1}$	-0.66 (0.14)**	-0.54 (0.14)**
Δ Civil war	-0.56 (0.63)	-1.19 (0.55)*
Civil war$_{t-1}$	0.69 (0.59)	0.26 (0.63)
Constant	6.56 (16.97)	-1.95 (17.46)
Long-run multipliers		
FDI inflows	-0.09 (0.03)**	
Bureaucratic quality	–	-5.34 (2.50)*
Physical integrity		-0.67 (0.18)**
Obs.	1,201	1,110
Countries	96	83
R^2 (within)	0.44	0.43

(*Notes.* Standard errors in parentheses. All models estimated with country fixed effects. Two-tailed tests. *<0.05, **<0.01).
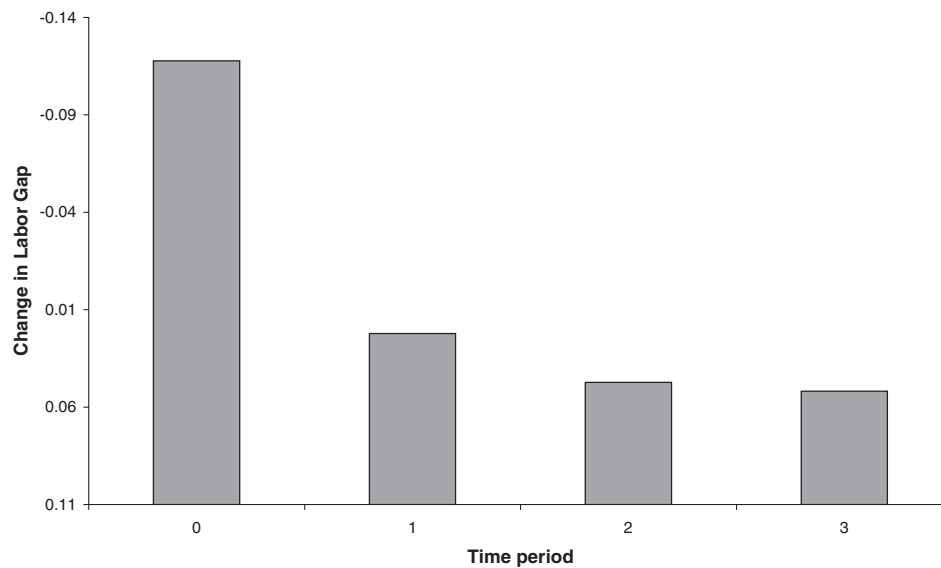
Fɪɢ 4. Lag Distribution of Foreign Direct Investment Inflows
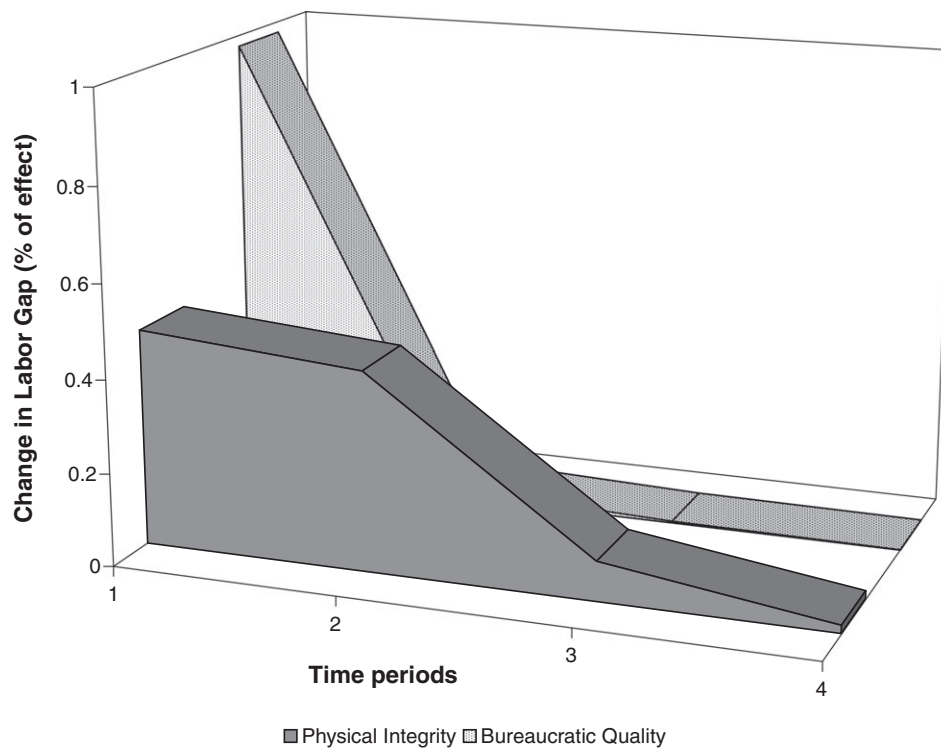

■Physical Integrity ☐Bureaucratic Quality

Fɪɢ 5. Comparison of Lag Distributions of Bureaucratic Quality and Physical Integrity Rights

When predicting the size of the labor gap, the effects of FDI and bureaucratic quality on the enforcement gap are also primarily felt in the immediate term, though there are some small effects of FDI flows and bureaucratic quality distributed across future periods. The long-term effects become quite important when assessing the effects of governments' respect for physical integrity rights on the labor enforcement gap across future time periods. While physical integrity rights invoke the supreme right to life that protect individuals from torture, disappearance, and politically motivated killings and imprisonment, and as such may be considered more fundamental than the labor rights measured here, we might expect that governments that cannot guarantee this most basic level of rights to also be inadequate enforcers of their own labor rights legislation and that this effect would extend into the future. The combination of short-term and long-term effects on FDI inflows and, subsequently, the labor gap provide us with a more complete picture of how we can expect investors to react to labor legislation and, in turn, how governments will enforce labor laws anticipating potential increases or decreases in FDI flows.

Minimum wage laws in South Africa serve as an illustrative example of how bureaucratic quality can affect the gap between labor laws and practices. The South African

government maintains minimum wage laws for a number of employment sectors, yet recent research has shown that just under half of workers covered under these laws, 44%, are paid below the minimum wage (Bhorat, Kanbur, and Mayet 2012). The authors of the study cite weak enforcement due to potential bureaucratic shortfalls and potential corruption. However, as FDI has increased over the period under study, the gap between labor laws and practices has narrowed, suggesting that increased FDI along with high quality bureaucracies that are insulated from political entanglements may contribute to better enforcement of labor laws.

Conclusion

In early 2012, tens of thousands of workers took to the streets of Johannesburg, South Africa, to protest the use of labor brokers, or companies that supply short-term workers to businesses, allowing them to evade the provision of benefits requisite when hiring permanent full-time employees. The practice of sourcing workers through labor brokers has contributed to the growing economic insecurity of many South African workers and workers in other developing countries. Despite being elected on a platform of support for labor unions and social welfare policies, President Zuma and the ANC government are "struggling to find a balance between workers' demands and economic growth. Officials fear that feeding too much power to the unions could scare off foreign investors who are seen as vital to South Africa's economy."[21]

This story and the wealth of scholarship on FDI and rights are suggestive of both the importance of the topic in academic and policy circles and the controversy that surrounds the unresolved debate about the relationship between these two phenomena. While earlier literature proposed a clear race-to-the-bottom logic, recent studies have found increasing support for the positive forces of FDI. These findings, however, have done little to quiet the concerns of activists who assert the deleterious consequences of globalization, which often include FDI. In this study, we seek to shed additional light on this debate by stressing the competitive and interactive nature of FDI and, from this, formally theorizing the incentive structure faced by governments that want to attract the commitments of foreign investors. In turn, we propose that investors also face strategic calculations when choosing whether to continue investing based upon whether they are a sincere investor, one who will abide by the labor regulations regardless of their enforcement, or an opportunistic one, who is quick to take advantage of the lack of enforcement, thus lowering the costs of operating a multinational enterprise by circumventing these regulations.

The theoretical model leads to clear predictions about how labor regulations will affect possibilities for investment, and further, how the gap between labor laws and labor practices, or the enforcement gap, will be affected by expected profits from investment and the costs of enforcement. These predictions find support in our empirical models, with decreasing FDI inflows corresponding to more stringent labor regulations and the enforcement gap growing as bureaucratic quality deteriorates and FDI dries up. The finding that tougher labor laws reduce FDI inflows while more lenient labor laws

increase FDI inflows seems to correspond with a version of the RTB hypothesis as governments anticipate greater investment when they lower labor restrictions. Yet, when the profitability of investment increases in a country, investors are willing to invest more, and a government faces increasing incentives to enforce labor laws so that its workers (who serve as a tax base for the government) will be better off. But when profitability decreases, investors are less willing to invest, making it harder for a government to strictly enforce labor laws. This seems to correspond to the empirical findings of recent studies that indicate a positive link between FDI and human rights.

The estimation of ECMs leads to different conclusions than more commonly estimated panel models about the role of labor rights in predicting FDI as well as the significance of common control variables including the stronger correlation between labor rights and FDI and the negative impact of fuel exports on investments inflows. Moreover, the ECM reports valuable information about the equilibrium relationship and the long-term effects on FDI and the enforcement gap, respectively.

Previous studies offered by Kucera (2002), Mosley and Uno (2007), and Greenhill et al. (2009) have taken the research program on labor rights a considerable distance, producing some of the most specific measures of these rights to date. The current study builds on this scholarship and data collection efforts, though future studies focusing on the gap between rights and enforcement should strive to match specific laws with their infringement.

Labor rights constitute a smaller subset of a larger class of economic rights. Economic and political rights are at once deeply intertwined, insofar as a government may be unable or unwilling to protect both types, and sharply distinct as the incentives to guarantee economic and political rights may vastly differ. Our analysis does not directly assess the relationship between labor rights and political rights, though future studies should account for the shared and distinct incentives for protecting both classes of rights as embodied in the UDHR. Our study maintains implications for how a government may approach the protection of human rights more generally.

Is the net effect of FDI positive or negative for developing host countries? Our research suggests that FDI can be a double-edged sword. While the highly competitive nature of attracting FDI forces governments to maintain low legal protections for workers, when FDI does start to flow in to some countries with favorable market conditions, enforcement of existing labor protections becomes more feasible, closing the gap between *de jure* and *de facto* labor rights protection. A smaller gap is also likely when law enforcement is less costly to the government. So while workers may not see drastic increases in minimum wages thanks to FDI competition, they will benefit marginally from better enforcement of existing minimum wage laws or other protections granted in law, gradually improving overall working conditions, as more FDI flows in. These results may explain some of the contradictory findings in the literature about whether FDI is welfare enhancing or diminishing. This research suggests that there are indeed pressures to RTB when it comes to attracting FDI, but when we consider the entire strategic interaction between governments and investors, the effects of FDI can be marginally positive for workers in developing countries in terms of governments' willingness to enforce the laws on the books.

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[21] "Thousands of Workers Strike in South Africa," narrated by Anders Kelto, All Things Considered *NPR*, March 14, 2012, http://www.npr.org/2012/03/14/148617387/thousands-of-workersstrike-in-south-africa.

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Supporting Information

Additional Supporting Information may be found in the online version of this article:

Appendix S1. Technical Discussion
Appendix S2. Robustness Checks
Appendix S3. Instrumental Variables Regression
Appendix S4. Countries in Sample