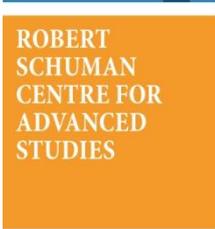




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Diffusion of labor standards from origin to host  
countries: Cross county evidence from multinational  
companies in Africa

Merima Ali and Adnan Seric



European University Institute  
**Robert Schuman Centre for Advanced Studies**  
Global Governance Programme

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Cross county evidence from multinational companies in Africa**

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## **Abstract**

This study empirically examines diffusion of labor standards from origin to host countries by investigating whether better labor standards of MNCs' origin countries are correlated with higher wages of workers in host countries in Africa. MNCs originating from countries with more rights of association and collective bargain and those coming from countries with unions that have strong wage bargaining power are found to pay significantly higher wages to their workers in host countries. These findings highlight that, although domestic policies and institutions may be important determinants of labor-related standards, they do not operate in isolation from external influences coming from origin countries.

## **Keywords**

Labor standards, Multinational companies, origin country, host country, wages, Africa

**JEL Classification:** F23, J80



## 1. Introduction

There is often a concern raised by human right activist, consumers and corporate shareholders about worker's rights and working conditions, especially in developing countries. This concern arises from an obvious consequence of increased global competition among multinational companies (MNCs) that resulted in negligence of worker's rights, unhealthy working environment, lower payments, and use of child labor, among others. The incidences of workers' rights violation in many parts of developing countries, together with increased multinational production, raise an important research and policy question. How do MNCs affect the governance of labor-related issues? To what extent can labor-related practices of MNCs be traced back to the characteristics of the national business system from which MNCs originate? And can labor related standards and practices of MNCs be transferred from origin to host countries?

Despite the importance of these questions, little literature to date has examined them in a systematic, cross-country analysis. Much of the research trying to link labor-related outcomes with MNCs focus on demonstrating whether violation of workers right exist in specific cases of big individual companies (Locke et al., 2007). Even the few existing cross-country studies focus on the link between labor standards and MNCs at the aggregate national level, rather than the industry and the firm level. For example, Mosely (2011) generates a large set of data on collective labor standards for the period 1985-2002, where she finds that higher levels of FDI are associated with greater respect for collective labor standards.

In this study, we examine diffusion of labor standards from origin to host countries using a cross country analysis of MNCs operating in Africa. We specifically investigate whether better labor standards of MNCs' origin countries are correlated with higher wages of workers that MNCs pay in the host countries. We use two measures of labor standards of origin countries; namely the right of association and collective bargain and unions' role in wage bargaining<sup>1</sup>. We investigate this using a unique firm level dataset from UNIDO's Africa Investor Survey, which was collected in 2010 on more than 1300 foreign firms from 19 countries (UNIDO, 2011). To the best of our knowledge, this is the first study that looks at whether corporate governance practices can be transferred from origin to host countries using cross-country analysis in an African perspective.

We find that multinational firms that originate from countries with more rights of association and collective bargain pay significantly higher wages to their workers in the host countries than multinational firms originating from countries with restrictive rights of association and collective bargain. These results are found after controlling for various firm level and host country characteristics and alternatively using host country fixed-effects to account for unobservable heterogeneity in host countries that may affect wages. We also find consistent results when we use union's role in wage bargaining as a proxy for labor standards in origin countries. Multinational firms originating from countries with unions that have strong bargaining power in wages pay significantly higher wages to their workers in the host countries.

The findings of this study contribute to existing FDI literature at least in two ways. First, it provides evidence contrary to the convergence theory, which states that economic integration induces countries to adopt common standards across firms (Berger 1996). In this study, we provide suggestive evidence that high level of economic integration via FDI need not necessarily lead to convergence in labor standards and practices and that it may differ across firms depending on where MNCs are

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<sup>1</sup> The data for these indicators of labor standards is obtained from Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pact (ICTWSS). ICTWSS contains annual data for all OECD and EU member states with some additional data for emerging economies of Brazil; China; India; Indonesia; Russia; and South Africa; and it runs from 1960 till 2010.

headquartered. Second, this study contributes to the ‘race to the bottom’ debate by demonstrating that competition for FDI in developing countries need not necessarily result in weaker labor standards in host countries (Collinsworth, Goold, and Harvey, 1994; Drezner, 2001). Globalization critics argue that increased competition for FDI generates a situation where host countries follow weak regulatory standards, allowing MNCs to adopt lax corporate practices (Neumayer, 2006). Despite these arguments, there are evidences that suggest that economic integration, under certain conditions, may create incentives for MNCs to transfer and implement better standards ‘that are significantly influenced by, if not comparable to, the ones adopted in the home country’ (Prakash and Potoski, 2007; p: 729).

This study further provides important policy implications for governments in host countries. The evidence that MNCs have potentials to transfer better practices from origin to host countries indicate that developing country governments could benefit if they strategically attract FDI from countries that demonstrate better corporate governance practices such as better labor regulations and standards. Similarly, such evidence indicate the potential that NGOs that work to safeguard better labor standards can have in influencing MNCs to transfer better practices to host countries in developing nations. International investment and trade agreement could therefore give such kind of NGOs an opportunity to push MNCs in the ‘right’ direction (Prakash and Potoski, 2007).

The next section will provide a brief review of the literature discussing the mechanisms through which labor standards can diffuse to host countries. Section 3 presents the data and descriptive statistics and Section 4 is the empirical model and the variables. Section 5 presents the results and Section 6 is conclusion and discussion.

## **2. Mechanisms through which multinational firms diffuse labor standards to host countries**

One mechanism through which multinational firms could affect labor standards in host economies is via the transfer of labor related practices from MNCs headquarters to their host-country affiliates or subsidiaries. This mechanisms related to the overall spillover literature, where multinational firms are shown to generate a variety of positive externalities to host economies (see for example De Mello, 1997 and Crespo and Fontoura, 2007 for a review). With respect to labor-related standards, multinational firms facilitate the transfer of various labor related practices from home to host countries for efficiency reason, where multinationals prefer to standardize their operations in order to reduce fixed costs associated with operating subsidiaries abroad (Pauly and Reich, 1997; Helpman et al., 2004.). These results in multinationals implementing policies and human resource management practices that are similar to those used at home, and may even exceed the requirements of the host countries (Dasgupta et al., 2000; Prakash and Potoski, 2007). This efficiency motivation not only transfers various corporate practices to MNEs foreign operations, but also creates heterogeneity across firms in host economies rather than promoting convergence to a single model as stated in the convergence theory (Mosley, 2011).

In addition to efficiency reason, multinational firms can practice better labor standards in host countries due to labor market competition. Efficiency seeking MNCs in particular are attracted by the availability of more productive labor at a relatively lower cost when investing abroad. This results in MNCs either hiring the most skilled workers or training workers. Given a mobile labor environment in different host countries, MNCs have incentives to retain their skilled workers, especially those in which they have invested in through training. As a consequence, multinational are expected to practice better labor standards either by paying their workers higher wages, or by improving the working environment, and so forth (Prakash and Potoski, 2007).

Global firms that act as sources of various production and trade standards can also diffuse labor standard to host countries, which is sometimes similar to what they practice in their headquarters. Firms can work individually or as a group to set corporate codes of conduct in order to satisfy the

demands of corporate social responsibility (Mattli and Woods, 2009, Mosley, 2011). According to a study conducted by Vogel (2009), there are over 300 industries of product codes that address labor or environmental practices and more than 3000 global firms that issue regular reports on their social and environmental standards.

The rise of corporate codes of conduct that is being followed by increasing number of MNCs is a reflection of the need to keep their reputation by sustaining a longer run relationship with host country governments, either because they intend to sell their products to local consumers or because they need to have a continued production presence in the host countries (Mosely, 2011). The pressure from various activists operating in different countries that hold MNCs legally accountable for their overseas practices can also increase MNCs' incentive to meet certain labor standards (Skippari and Pajunen, 2010). Such pressure may trickle down to local suppliers, as MNE subsidiaries encourage their suppliers to adopt better corporate practices (Christmann and Taylor, 2001; Hutson, 2004). The increased desire of MNCs to appear 'responsible' has resulted in market for labor standards that are either firm or supply-chain specific. Such development can lead to diffusion of labor standards from MNCs to host countries in which they operate in.

Another mechanism through which multinational firms can affect labor-related outcomes in host countries is by influencing the host country's national legal system (Mosely, 2011). MNCs may have incentives to implement labor standards that may exceed what is legally required in the host country for various reasons. However, such practices may generate cost disadvantage to multinational firms compared to other multinationals or domestic firms that do not implement such labor practices, simply because they are not required by law in the host countries. In order to avoid this cost disadvantage, MNCs may lobby the host country government to improve their country's labor standards. Such phenomena has been documented in various studies, especially in environmental related policies (Prakash and Potoski, 2007; Perkins and Neumayer, 2010). For example, US-owned chemical firms lobbied the government of Brazil and Mexico to upgrade the regulations of the sector so as to force other foreign and domestic counterparts to follow the same policy (Garcia-Johnson, 2000).

However, MNCs lobbying host country governments to change their policies are a difficult process and may require longer-term investment in political relations and is expected to occur less frequently (Mosely, 2011).

### **3. Data and descriptive statistics**

#### *Data*

We obtain different measures of labor standards of origin countries from ICTWSS<sup>2</sup>, which has information on institutional characteristics of trade unions, wage setting, state intervention and social pacts in 34 countries from 1960 until 2010. ICTWSS contains annual data for all OECD and EU member states with some additional data for emerging economies including Brazil, China, India, Indonesia, Russia, and South Africa. In this study, we use two measures of labor standards of origin countries for the year 2010.<sup>3</sup> The first measure of labor standards is the right of association and collective bargain, which ranges from 0="there is no right of association and collective bargain" to 1="yes there is right but with major restriction", 2="yes there is right but with minor restriction" to 3="yes there is right of association and collective bargain with no restriction". The higher the value, the more right workers in origin countries have in terms of association and collective bargain. The

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<sup>2</sup> The dataset is compiled by Amsterdam Institute for Advanced Labour Studies (AIAS), part of the University of Amsterdam.

<sup>3</sup> For detailed discussion of the ICTWSS database and the codebook used to generate the different variables, please refer to [http://www.uvaaias.net/uploaded\\_files/regular/ICTWSScodebook40.pdf](http://www.uvaaias.net/uploaded_files/regular/ICTWSScodebook40.pdf)

second measure of labor standard is unions' role in wage bargaining. This variable ranges from 0 to 2, with 0= "union does not negotiate on wages"; 1= "union negotiates wage agreements at sector level allowing enterprise or company branches to vary within limits" and 2= "union negotiates enforceable agreements at sector level and has veto power over company agreements". Again, the higher the value of this variable, the more power labor unions in specific origin country have in wage bargaining.

We use original firm-level data collected through the UNIDO Africa Investor Survey 2010 across 19 Sub-Saharan Africa countries.<sup>4</sup> We use the Foreign Investor Survey data, which contain a rich set of information on a large sample of foreign firms. The collection of the dataset followed a rigorous survey methodology in terms of stratified sampling (on three dimensions: sector, size and ownership) and interview techniques (face-to-face interviews with top-level managers of foreign- and domestically-owned firms). The sample was constructed in order to be representative of public and private for profit firms with 10 or more employees.<sup>5</sup>

Our main variable, wage, is captured as average wage per full time employees in each firm. In the questionnaire, firms are asked to state the value of total wage bills including supplementary benefits that they paid to their workers in the last financial year. They are also asked to state the number of full time employees in the past financial year. We divide the total wage bill of a firm by number of full time employees in each firm to get the average wage per full time employees. The wages are adjusted to nominal exchange rate in USD.

In addition to wage, the data available in the African Investor Survey are unique in that they provide detailed information on various aspects of firm level characteristics, performance, customer-supplier relationships, and assistance received at the level of the firm. There is one disadvantage, however. Currently, the data are only available for a cross section for 2010. Hence, while we can use the data to unearth and describe some hitherto unknown relationships, we are careful to avoid interpreting these as causal effects. Nevertheless, we feel that the relationships are sufficiently interesting and, importantly, policy relevant to justify our analysis. This dataset is complimented by host country institutional and business climate indicators at the national level which is obtained from various sources, outlined in the coming section.

In order to provide a first look at the relationship between origin/home country labor standards and the foreign investor's behavior in host countries, we provide some summary statistics.

### *Descriptive Statistics*

Table 1 shows the two labor standard indicators both for emerging and OECD origin countries. From the data set, we have relatively more information about the right of association and collective bargain by country of origin. However, there are some missing values for the other indicator (union's role in wage bargaining). As can be seen in the table, OECD countries in general have on average better labor standard compared to emerging countries, both in terms of the right of association and collective bargain and union's role in wage bargaining. Among emerging countries, China has more restrictive right of association and collective bargain than other countries. Unions in China also do not play an active role in wage bargaining. South Africa is the lowest performer of all the countries both in terms of workers right of association and collective bargain and the role of unions in wage bargaining.

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<sup>4</sup> The countries included in the data are Burkina Faso, Burundi, Cameroon, Cape Verde, Ethiopia, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Senegal, Tanzania, Uganda, Zambia.

<sup>5</sup> An oversampling of relatively large firms (> 100 employees) has been adopted.

**Table 1: Labor standard indicators of origin countries**

	Right of association and collective bargain	Union's role in wage bargaining
<b><i>Emerging economies</i></b>		
China	1.5	0
India	3	-
South Africa	0	0
Latin America	2.5	-
Other Asia and Oceania	2.3	0
Average	1.86	0
<b><i>OECD countries</i></b>		
Europe	2.9	1
Scandinavia	3	1
USA	2.5	0
Canada	2.5	1
Japan	3	0
Australia	2.5	0
New Zealand	3	0
Average	2.77	0.42

Source: ICTWSS database, 2010

Among OECD countries, European countries, Japan and New Zealand have the right of associating and collective bargain with almost no restriction. Among European countries, Scandinavian nations have relatively strong unions that play a strong role in wage bargaining. Japan also has the right of association and collective bargain with no restriction. However, Japan's labor union have almost no role in wage bargaining. The right of association and collective bargain in USA and Canada is not as flexible as European countries in general and Scandinavian countries, in particular. Union's also do not play an active role in wage bargaining in Canada and USA.

We now look at the percentage share of FDI by different origin countries and regions in the 19 African countries that we have in the sample. India covers the largest share of FDI in Africa, with a share of almost 31%. Europe as a region has the largest share of about 33%. The largest share of FDI from Europe comes from France. France alone accounts for 59% of the FDI investment from Europe, and it is the largest investor next to India. Portugal and Italy are the second and third largest European investors, each covering 27% and 22% of the investment coming from Europe, respectively.

China covers 13% of FDI in Africa and is the third largest investor coming after India and France. USA also has a relatively large share of FDI in Africa, with a share of 8%, being the fourth largest investing country in the region. Other Asia and Oceania countries and other OECD countries that include Australia, Canada, Japan and New Zealand cover 7% and 4% respectively.

In terms of recipient (host) countries, Uganda has the largest share of FDI, with close to 17% of FDI in the sample being destined to this country. This is followed by Kenya with a share of 12% and Ghana with a share of 6%. Tanzania, Nigeria and Ethiopia each have a share of close to 6% of the FDI in the sample. These six countries alone account for 54% of the FDI in Africa.

We further look at the distribution of average wages paid per full time worker by multinational firms in host countries with different characteristics (Table 2). There is not much difference in wages paid between multinational firms of different sizes. Multinational firms that are engaged in manufacturing sector pay relatively lower wage than those engaged in agriculture and mining, service and electricity and water construction. Firms that have either a local or regional orientation in

marketing of their final products pay relatively higher wages than globally oriented firms. Firms that are subsidiaries of multinational companies also pay a higher wage than stand-alone and firms owned by the diaspora. Similarly, firms that invested in existing local company pay higher wages than those that formed new Joint Venture (JV).

**Table 2: Descriptive statistics of logarithm of wage across firms of different characteristics**

	# of observation	Mean	Std. Dev.	Min	Max
<b>Size</b>					
Small	786	8.27	1.17	1.66	14.68
Medium	448	8.13	1.31	2.45	15.87
Large	925	8.23	1.29	1.77	14.16
<b>Sector</b>					
Agriculture and Mining	145	8.14	1.11	4.64	11.34
Manufacturing	1036	7.99	1.22	1.66	15.87
Service	847	8.49	1.27	3.27	14.42
Electricity and water construction	137	8.37	1.42	1.77	11.86
<b>Market orientation</b>					
Local	1653	8.27	1.29	1.66	14.67
Regional	208	8.23	1.26	2.95	15.87
Global	292	7.88	1.06	2.67	11.21
<b>Ownership</b>					
Subsidiary	752	8.63	1.33	1.77	15.87
Stand-alone	975	7.92	1.14	1.65	14.67
Diaspora	88	8.18	1.19	5.50	10.80
<b>Type of Investment</b>					
Formed a new JV	325	8.22	1.17	2.67	10.95
Invest in existing local company	156	8.40	1.24	2.68	10.91

Source: Author's compilation from UNIDO's Africa Investor Survey, 2010

#### 4. Empirical Model and variables

To investigate how labor standards of MNCs' origin country are correlated with wages that multinational firms pay to workers in the host countries, we estimate the following model.

$$w_{hi} = S_o + X_{hi} + Z_h + \varepsilon_i; \quad (1)$$

where  $w_{hi}$  is logarithm of average wage per full time worker that multinational firms pay to workers in host country  $h$  at firm  $i$ .  $S_o$  is our measure of labor standards of origin country  $o$  of the multinational firm, as described in section 3 above.<sup>6</sup>  $X_{hi}$  is a vector of various firm specific characteristics of the multinational firm  $i$  operating in the host country  $h$ .  $Z_h$  indicates a vector of host country

<sup>6</sup> The right of association and collective bargain, ranging from 0= "there is no right of association and collective bargain" to 1 = "yes there is right but with major restriction", 2= "yes there is right but with minor restriction" to 3= "yes there is right of association and collective bargain with no restriction". Unions' role in wage bargaining ranging from 0= "union does not negotiate on wages"; 1= "union negotiates wage agreements at sector level allowing enterprise or company branches to vary within limits" and 2= "union negotiates enforceable agreements at sector level and has veto power over company agreements".

characteristics such as the institutional quality and the business climate, and  $\varepsilon_i$  is an error term. All variables used in the model are summarized in Table 1 in the Appendix.

The tendency to replicate and diffuse labor related practices from home to host countries may be greater in firms that use more sophisticated technology and require higher skilled workforce. It is assumed that stiffer competition to attract and retain the latter is an important driver of diffusion of labor related practices in more technology intensive sectors (Mosely, 2011). On the other hand it is less likely for more labor-intensive sectors to have upgrading of labor related practices through diffusion from home countries because these types of firms are ‘more sensitive to labor costs and less concerned with labor productivity and skills (Mosely, 2011, pp: 10). For this, we use various indicators of firm level characteristics in the model. These include the skill intensity of workers, which is captured by the ratio of skilled workers to total workers; share of female employees and share of foreign employees. We also control for the capital-labor ratio of the firm to capture whether the firm is capital or labor intensive and the output-labor ratio to capture the firm-level labor productivity. Additional firm-level characteristics such as the size, age and the four digit sector that the firm is operating in is also included in the model.

Studies show that the way in which FDI enters the host economy also makes a difference in diffusion of labor related practices from home to host countries. For example, when MNCs are created via purchase of an existing firm, it was indicated that the transfer of labor related practices is lower (Crespo and Fontoura 2007, Kristensen and Zeitlin, 2005). On the other hand, FDI that is generated as a Greenfield project through creation of subsidiary of and MNC will more likely transfer labor related practices from home country headquarters to host country affiliates (Mosely, 2011). For this, we control a dummy that captures whether the firm is a subsidiary of MNC or not, stand alone or not and JV of foreign firm or not. If the firm is a subsidiary of MNC, proportion of sales to parent company is also included in the model.

In addition to home country influence, labor related practices may also be affected by destination countries where multinational firms export their products. Greenhill et al., (2009) noted that trade serves as a mechanism to diffuse norms and practices from importing countries to exporting countries. For this, we control for market orientation of the firm, which is whether the firm is selling most of its products globally or not. We also followed the work of Greenhill et al., (2009) and controlled for bilateral trade context which is the weighted average of labor standards of the multinational firm’s export partner. It is calculated by taking the labor standard score of each firm’s export destination country and weighs this by the share of each multinational firm’s export to these destination countries.<sup>7</sup>

$$Bilateral\ trade\ context_i = \sum_1^j Labor\ rights_j \times Export\ share_{ij} \quad (2)$$

where  $i$  indicate the exporting multinational firm; and  $j$  is the importing country.

According to this measure, a multinational firm that exports most of its products to countries that practice relatively better labor standard will have a higher score of bilateral trade context.

In addition to firm level characteristics, the diffusion of MNCs’ labor-related standards to the host economy is likely to depend on the existing domestic institutions (Mosley, 2008). For example, if labor regulations of the host country are already well developed and strict, then MNCs labor standards will have a much smaller effect or no effect at all (Mosley, 2008). For this, we include various indicators of the host country institution and economy. The measures of institutional quality included in the model are protection of property rights and democracy. Indicators of the business climate such

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<sup>7</sup> Greenhill et al., (2009) used volume of export. However, we do not have volume of export in our data set. Instead, we used share of export to various destination countries as a proxy.

as the extent to which government regulation is a burden to the private sector, transparency of government policy making and belief of the private sector that government services can improve business performance are also included. The data for these indicators with the exception of democracy is obtained from World Economic Forum; Global Competitiveness report of the 2010-2011 data platform. This dataset ranks individual countries based on their global competitiveness score from 1 up to 7. The measure of democracy is obtained from Polity IV of 2011.

Other host country characteristics included in the model are prevalence of foreign owned firms and average stock of FDI. Prevalence of foreign ownership is obtained from World Economic Forum, where countries are ranked from 1 up to 7, with a higher value indicating more prevalence of foreign owned firms. Average stock of FDI is measured for the past five years of the time of the survey and the data is obtained from the World Bank, World Development Indicator. Additionally, we control for GDP per capita of the host country, also obtained from World Development Indicator.

## 5. Results

Table 3 shows regression results of the correlation between the first measure of labor standard of origin countries (right of association and collective bargain) and wages set by multinational firm. We do the regression analysis by clustering the standard errors at host country level in order to make our *t-statistics* robust to cross-country heteroskedasticity, using and OLS estimator.

In column I, we include only the measures of labor standards. We find that multinational firms that originate from countries that have higher level of labor standards in terms of rights of association and collective bargain pay significantly higher wages to their workers in the host countries. This significant relationship between the right of association and collective bargain in origin countries and wages in host countries still persist even after controlling for firm level characteristics in column II; host country characteristics in column III and the four digit sector classification of firms in column IV.

Regarding some characteristics of firms, we also find results as expected. As can be seen in column IV, multinational firms that are more capital intensive and employ more productive labor pay relatively higher wages. Similarly, multinational firms that are subsidiaries of a multinational company also pay a significantly higher wages. We also find a marginally significant effect for our measure of bilateral trade context, which depicts that multinational firms that export most of their products to countries with relatively higher labor standards pay higher wages to their workers in the host countries.

**Table 3: Correlation between right of association and collective bargain in origin country and wage (Dependent variable: logarithm of average wage at firm level)**

	I	II	III	IV
Right of association and collective bargain	0.68*** (0.16)	0.47** (0.20)	0.28* (0.15)	0.28* (0.14)
Age of establishment		0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Skill intensity		0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Share of female employment		-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)
Share of foreign employment		-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Log of capital labor ratio		0.07* (0.03)	0.12*** (0.03)	0.12*** (0.03)
Log or output labor ratio		0.25*** (0.06)	0.18** (0.06)	0.18*** (0.06)
Proportion of sales to parent company		-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Company is JV of foreign firm (d)		0.09 (0.08)	0.07 (0.06)	0.07 (0.07)
Company is subsidiary of foreign firm (d)		0.26** (0.09)	0.29*** (0.08)	0.25*** (0.08)
Company is stand-alone (d)		-0.04 (0.09)	-0.08 (0.09)	-0.10 (0.09)
Medium size company (d)		-0.04 (0.08)	-0.02 (0.09)	-0.06 (0.11)
Large company (d)		-0.12** (0.06)	-0.05 (0.07)	-0.07 (0.09)
Market orientation global (d)		-0.29 (0.17)	-0.31* (0.16)	-0.23 (0.13)
Market orientation regional (d)		-0.04 (0.15)	-0.16 (0.11)	-0.16 (0.10)
Bilateral trade context		0.07 (0.05)	0.07 (0.05)	0.09* (0.05)
Property rights			-0.19 (0.18)	-0.18 (0.17)
Democracy			0.01 (0.02)	0.01 (0.02)
Burden of govt. regulation			-1.00*** (0.31)	-0.84*** (0.26)
Transparency of govt. policy making			0.48 (0.34)	0.28 (0.30)
Govt. services for improved business performance			0.21 (0.22)	0.21 (0.22)
Prevalence of foreign owned firms			0.00 (0.13)	0.10 (0.10)
Log of GDP per capita			0.43*** (0.14)	0.46*** (0.12)
Log of FDI net flow			-0.02 (0.04)	-0.04 (0.04)
Constant	6.31*** (0.44)	3.07*** (0.87)	2.99 (1.88)	3.66** (1.71)
ISIC fixed effects	–	–	–	Yes
pseudo R <sup>2</sup>	0.051	0.349	0.406	0.439
N	1331	1262	1198	1198

Standard errors in parentheses; \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ ; standard errors clustered at host country level.

Table 4 shows the regression result using the second measure of labor standard of origin countries, (union's role in wage bargaining). We find similar result as in table 3. Multinational firms that originate from countries with strong unions that play an important role in wage bargaining pay relatively higher wages to their workers in the host countries. This result is consistent even after controlling for firm level characteristics in column II, host country characteristics in column III and the four digit sector classification in column IV. We also find that capital intensive firms and those that rely on more productive labor pay higher wages. Multinational firms that are subsidiaries of multinational firms also pay higher wages.

**Table 4: Correlation between Union's role in wage bargaining in origin country and wage (Dependent variable: logarithm of average wage at firm level)**

	I	II	III	IV
Union's role in wage bargaining	0.58*** (0.18)	0.57*** (0.14)	0.38*** (0.12)	0.36** (0.14)
Age of establishment		0.01** (0.00)	0.01** (0.00)	0.01*** (0.00)
Skill intensity		0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Share of female employment		0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)
Share of foreign employment		-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Log of capital labor ratio		0.07** (0.03)	0.11** (0.04)	0.11** (0.04)
Log or output labor ratio		0.26*** (0.05)	0.21*** (0.05)	0.21*** (0.05)
Proportion of sales to parent company		-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Company is JV of foreign firm (d)		0.10 (0.10)	0.11 (0.09)	0.13 (0.09)
Company is subsidiary of foreign firm (d)		0.09 (0.10)	0.18*** (0.06)	0.15* (0.07)
Company is stand-alone (d)		-0.13 (0.09)	-0.15 (0.09)	-0.18* (0.09)
Medium size company (d)		-0.16 (0.14)	-0.09 (0.12)	-0.13 (0.11)
Large company (d)		-0.11 (0.11)	0.01 (0.09)	-0.05 (0.12)
Market orientation global (d)		0.03 (0.12)	-0.07 (0.09)	-0.03 (0.14)
Market orientation regional (d)		-0.01 (0.19)	-0.19 (0.16)	-0.26 (0.15)
Bilateral trade context		-0.18 (0.16)	-0.12 (0.15)	-0.20 (0.21)
Property rights			-0.05 (0.20)	-0.07 (0.20)
Democracy			0.02 (0.02)	0.01 (0.02)
Burden of govt. regulation			-0.93** (0.32)	-0.79*** (0.26)
Transparency of govt. policy making			0.37 (0.36)	0.19 (0.32)
Govt. services for improved business performance			0.36 (0.20)	0.33 (0.22)
Prevalence of foreign owned firms			-0.03 (0.15)	0.03 (0.13)
Log of GDP per capita			0.32** (0.12)	0.40*** (0.11)
Log of FDI net flow			-0.00 (0.05)	-0.02 (0.04)
ISIC fixed effects	–	–	–	Yes
Constant	8.04*** (0.19)	4.09*** (0.47)	3.19** (1.36)	3.50** (1.47)
R <sup>2</sup>	0.049	0.368	0.417	0.454
N	1006	950	903	903

Standard errors in parentheses; \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ ; standard errors clustered at host country level

**Robustness check**

In this section, we repeat above specified regression by using host country fixed effects instead of host country characteristics. This is done in order to account for any heterogeneity across host countries that would lead to wage differences. As can be seen in table 5, even after controlling for host country fixed effects, we find that multinational firms that originate from countries with relatively higher labor standards both in terms of right of association and collective bargain and union's role in wage bargaining, pay a significantly higher wages to their workers in the host counties.

**Table 5: Robustness check using host country fixed effects  
(Dependent variable: logarithm of average wage at firm level)**

	I	II
Right of association and collective bargain	0.49* (0.24)	–
Union's role in wage bargaining	–	0.46*** (0.14)
Age of establishment	0.01*** (0.00)	0.01*** (0.00)
Skill intensity	0.01*** (0.00)	0.01*** (0.00)
Share of female employment	-0.00 (0.00)	-0.00 (0.00)
Share of foreign employment	0.00 (0.00)	-0.00 (0.00)
Log of capital labor ratio	0.08** (0.04)	0.07* (0.04)
Log or output labor ratio	0.17*** (0.05)	0.20*** (0.04)
Proportion of sales to parent company	-0.00 (0.00)	-0.00 (0.00)
Company is JV of foreign firm (d)	0.09 (0.07)	0.14 (0.09)
Company is subsidiary of foreign firm (d)	0.21** (0.09)	0.09 (0.11)
Company is stand-alone (d)	-0.03 (0.10)	-0.15 (0.10)
Medium size company (d)	-0.13 (0.11)	-0.21 (0.13)
Large company (d)	-0.16 (0.10)	-0.15 (0.12)
Market orientation global (d)	-0.12 (0.15)	-0.01 (0.13)
Market orientation regional (d)	-0.09 (0.09)	-0.19 (0.13)
Bilateral trade context	0.06 (0.04)	-0.11 (0.16)
Constant	4.43*** (1.00)	4.85*** (0.44)
ISIC fixed effects	Yes	Yes
Host country fixed effects	Yes	Yes
$R^2$	0.435	0.447
$N$	1262	950

Standard errors in parentheses; \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ ; standard errors clustered at host country level.

## **6. Conclusion and discussion**

In this study, we examine conditions under which MNCs transfer their corporate governance practices from origin to host countries, by focusing on various labor standards of origin countries using a cross country analysis in Africa. We specifically investigate whether better labor standards of MNCs' origin countries are correlated with higher wages for workers in the host countries. We use two measures of labor standards of origin countries; namely the right of association and collective bargain and unions' role in wage bargaining. We investigate this using a unique firm level dataset from UNIDO's Africa Investor Survey.

We find that multinational firms that originate from countries that have more rights of association and collective bargain pay significantly higher wages to their workers in host countries than multinational firms originating from countries with restrictive rights of association and collective bargain. We also find consistent results when we use union's role in wage bargaining as a proxy for labor standards in origin countries. Multinational firms originating from countries with unions that have strong bargaining power in wages pay significantly higher wages to their workers in the host countries. We checked the robustness of our results by controlling for different firm level and host country characteristics and by alternatively controlling for host country fixed effect to account for unobservable heterogeneity in host countries that may affect wages. In all of these specifications, the positive and significant correlation between the two measures of origin country labor standards and higher wages in host countries persist.

These results support two hypotheses through which multinational firms facilitate the transfer of various labor related practices from home to host countries. The first one is the efficiency reason, where multinationals prefer to standardize their operations in order to reduce fixed costs associated with operating subsidiaries abroad (Pauly and Reich 1997; Helpman et al 2004). This mechanism is further supported by the findings in this study that firms that are subsidiaries of MNCs pay higher wages.

In addition to efficiency reason, the tendency to replicate and diffuse labor related practices from home to host countries may be greater in firms that use higher technology and skilled workers as the competition to attract and retain skilled workers in such type of sectors is more important (Mosely, 2011). Consistent with this mechanism, we find that multinational firms that are more capital intensive and employ more productive labor pay relatively higher wages.

Evidences from this paper provide important policy implications for governments in host countries. Host country governments should appreciate FDI's 'investing up' potential in transferring better practices and norms to host countries. Developing country governments could benefit if they strategically attract FDI from countries that demonstrate better corporate governance practices such as better labor standards. Similarly, international investment and trade agreement can provide NGOs that work to safeguard better labor standards an opportunity to influence MNCs potential in transferring better practices to host countries in developing countries.

A possible caveat of this study is its reliance on cross-sectional data, which does not allow us to see the effects of inter-temporal changes of labor standards of origin countries. That we cannot entirely control for possible time variant unobservable factors that can be correlated with labor standards of origin countries and simultaneously affect wages paid in the host countries is another limitation. Despite these shortcomings, the results of this study provide suggestive evidence that, although domestic policies and institutions are likely to be important determinants of various labor-related standards, they do not operate in isolation from external influences of those coming from origin countries.

## References

- Almond, P., Edwards, T., Colling, T., Ferner, A., Gunnigle, P., Muller-Camen, M., Quintanilla, J., and Wachter, H., (2005), Unraveling Home and Host Country Effects: An Investigation of the HR Policies of an American Multinational in Four European Countries, *Industrial Relations* 44(2): 276-306.
- Berger, S., and Dore, R., Eds. (1996), *National Diversity and Global Capitalism*, Ithaca: Cornell University Press.
- Christmann, P., and Taylor, G. (2001), Globalization and the Environment: Determinants of Firm-Self Regulation in China. *Journal of International Business Studies* 32(3):439–458.
- Collinsworth, T., Goold, W. J., and Harvey, Pharis J. (1994), Labor and Free Trade, *Foreign Affairs* 77 (1): 8–13.
- Crespo, N., and Fontoura, M.P. (2007), Determinant Factors of FDI Spillovers: What do We Really Know?, *World Development* 35(3): 410-425.
- Dasgupta, S., Hettige, H., and Wheeler, D.(2000), What Improves Environmental Compliance? Evidence from Mexican Industry, *Journal of Environmental Economics and Management* 39: 39–66.
- De Mello, L. R. (1997), Foreign Direct Investment in Developing Countries: A Selective Survey, *Journal of Development Studies* 34: 1–34.
- Drezner, D. (2001), Globalization and Policy Convergence, *International Studies Review* 3(1):53–78.
- Eskeland, G., and Harrison, A. (2003), Moving to Greener Pastures? *Journal of Development Economics* 70(1):1–23.
- Garcia-Johnson, R. (2000), *Exporting Environmentalism: U.S. Multinational Chemical Corporations in Brazil and Mexico*, Cambridge: MIT Press.
- Greenhill, B., Mosely, L., and Prakash, A., (2009), Trade-based Diffusion of Labor Rights: A Panel Study, 1986–2002, *American Political Science Review* 103(4): 669-690.
- Helpman, E., Melitz, M. J. and Yeaple, S. R. (2004), Export versus FDI with Heterogeneous Firms, *American Economic Review* 94(1): 300-316.
- Hutson, A. M. (2004), *Diffusion of Environmental Practices through Value Chain Relationships in the United States and Mexico*. Paper prepared for the 26th Annual Research Conference of the Association for Public Policy and Management, October 29, 2004.
- Javorcik, B. S. (2004), Does Foreign Direct Investment Increase Productivity of Domestic Firms? *American Economic Review* 94(3):606–627.
- Javorcik, B. S., and Spatareanu, M. (2005), Disentangling FDI Spillovers. In *Does Foreign Direct Investment Promote Development?*, edited by Theodore H. Moran, Edward M. Graham, and Magnus Blomstrom. Washington DC: Institute for International Economics.
- Kristensen, P.H., and Zeitlin, J. (2005), *Local Players in Global Games: The Strategic Constitution of a Multinational Corporation*. Oxford: Oxford University Press.
- Locke, R.M., Qin, F., and Brause, A. (2007), Does Monitoring Improve Labor Standards? Lessons from Nike, *Industrial and Labor Relations Review* 61(1): 3-31.
- Mattli, W., and Woods, N. Eds. (2009), *The Politics of Global Regulation*, Princeton: Princeton University Press.
- Mosley, L. (2008), Workers' Rights in Open Economies: Global Production and Domestic Institutions in the Developing World, *Comparative Political Studies* 41: 674–714.

- Mosley, L. (2011), *Labor Rights and Multinational Production*, New York: Cambridge University Press.
- Neumayer, E. (2006), Globalization and the Right to Free Association and Collective Bargaining: An Empirical Analysis, *World Development* 34: 31-49.
- Pauly, L., and Reich, S. (1997), National Structures and Multinational Corporate Behaviors, *International Organization* 51: 1-30.
- Perkins, R., and Neumayer, E. (2010), Geographic variations in the early diffusion of corporate voluntary standards: comparing ISO 14001 and the Global Compact, *Environment and Planning* 42(2): 347–365.
- Prakash, A., and Potoski, M. (2007), Investing Up: FDI and the Cross-National Diffusion of ISO 14001, *International Studies Quarterly* 51(3): 723-744 .
- Skippari, M., and Pajunen, K. (2010), MNE-NGO-Host Government Relationships in the Escalation of an FDI Conflict, *Business Society*, 49(4): 619-651
- UNIDO (2011), *Africa Investor Report 2011: Towards Evidence Based Investment Promotion Strategy*, United Nations Industrial Development Organization; Vienna, Austria.
- Vogel, D.( 2009), The Private Regulation of Global Corporate Conduct. In Mattli and Woods, eds., pp. 151-188.

## Appendix

Table 1: Descriptive Statistics of Variables

Variables	Mean	Std.dev.	Min.	Max.
Log of average wage at firm level	8.22	1.27	1.66	15.87
Right of association and collective bargain	2.80	0.45	1	3
Union's role in wage bargaining	0.55	0.50	0	2
Age of establishment	16.92	12.93	1	60
Skill intensity	47.79	31.92	1	100
Share of female employment	29.71	26.12	1	100
Share of foreign employment	15.70	26.25	1	100
Log of capital labor ratio	9.44	1.86	2.28	18.21
Log or output labor ratio	10.46	1.69	3.05	18.65
Proportion of sales to parent company	0.12	0.31	0	1
Company is JV of foreign firm (d)	0.15	0.35	0	1
Company is subsidiary of foreign firm (d)	0.35	0.48	0	1
Company is stand-alone (d)	0.44	0.49	0	1
Medium size company (d)	0.19	0.39	0	1
Large company (d)	0.42	0.49	0	1
Market orientation global (d)	0.13	0.33	0	1
Market orientation regional (d)	0.09	0.28	0	1
Bilateral trade context	0.27	0.76	0	3
Property rights	3.77	0.49	2.45	5.19
Democracy	4.57	3.07	0	10
Burden of govt. regulation	3.56	0.45	2.77	5.29
Transparency of govt. policy making	4.07	0.48	3.00	5.51
Govt. services for improved business performance	3.63	3.63	2.13	4.11
Prevalence of foreign owned firms	4.71	0.63	2.83	5.47
Log of FDI net flow	20.09	1.42	14.51	22.78
Log of GDP per capita	6.02	0.46	4.92	7.58

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