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FDI Deregulation Versus Labor Market Reform: a Political Economy Approach

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Abstract:

This paper studies the political economy of Foreign Direct Investment (FDI) in interaction with labor market policies. It analyzes the setting of reform towards deregulating labor markets as a political compromise pressured by the lobbying of an industry lobby and a trade union. Using a common agency model of lobbying, we show that the interest group's influence is socially distortive towards less deregulation. Also, our political economy framework shows that, for large countries, exogenous FDI liberalization policies lead to a deregulation in the labor market. For small countries, they enhance more labor market rigidities.

JEL codes: D72, J08, D83

Key words: FDI, lobbying, labor market, common agency

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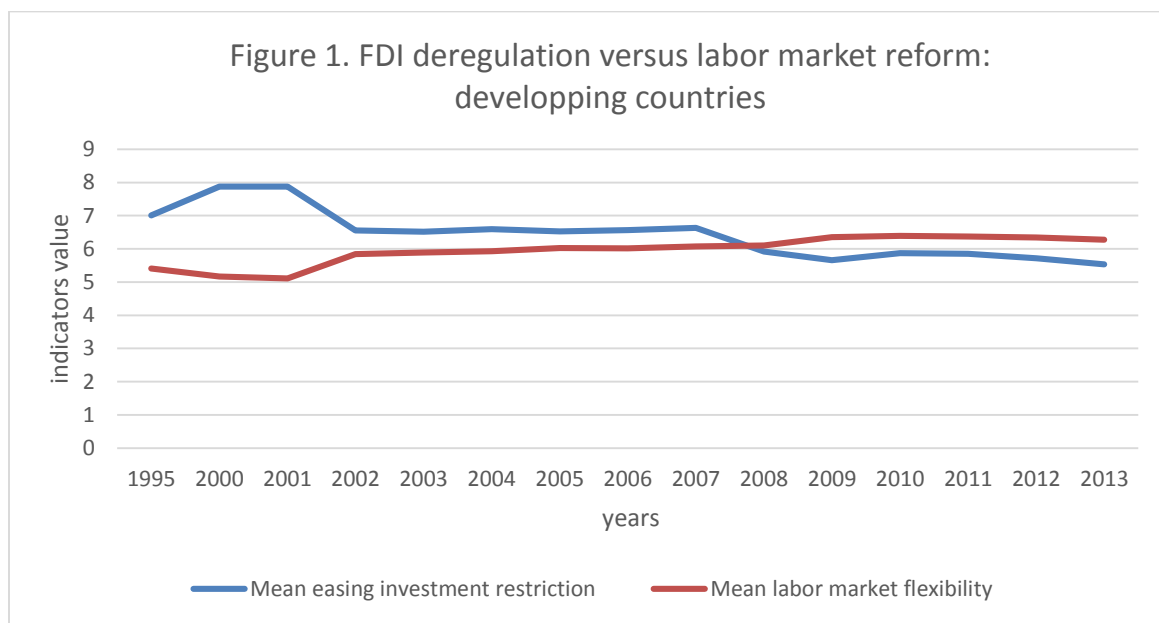
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1. Introduction

In recent decades, multinational corporations (MNCs) have increased their foreign direct investment (FDI) activities worldwide and developing countries have been the main destination. FDI is the international flow of firm-specific asset such as production technologies, managerial and organizational practices, and trademarked brands. Usually, MNCs realize FDI through the establishment of new production facilities, or the merger and acquisition of an existing firm. The literature has traditionally distinguished two motives for FDI. Resource seeking FDI refers to firms willing to reduce production costs by relocating production to foreign countries abundant in necessary inputs, such as labor or natural resources. Market seeking FDI sees firms entering countries to produce goods and services for local sales. This strategy aims at reducing the burden of trade barriers and transportation costs. During the period 1990-2013, the amount of FDI inflows have jumped from \$35,000 to \$77,000 million \$ (UNCTAD, 2013).

To explain such trend in international economic flows, a vast literature has focused on how governments compete to attract FDI. Indeed, the advent of the democratization process in the 1990s, with a large number of countries adopting free market economic policies, paved way for interstates competition to attract foreign investment. FDI would yield infrastructure upgrading, promote technology transfer and improve managerial knowledge; those factors being of most importance to compete in global markets (Dunning, 1981). FDI are also credited with boosting economic growth (Alfaro et al. 2004), Borensztein et al. 1998; De Mello, 1999) and reducing unemployment (Spiezia, 2004; Vacaflores, 2011). Such interstate competition has been witnessed mainly in developing countries as developed countries already exhibit high quality infrastructure, property rights protection and an educated work force, thus reducing the need for them to compete. Unsurprisingly, relaxing FDI regulation such as those on ownership, the creation of special economic zones, and lowering taxation on corporations have been widespread policies to attract FDI. Kobrin (2005) showed that during the period between 1992-2001, 95% of the 1086 individual policy changes either lessened restrictions on inflows of FDI or provided incentives to attract them. Interestingly, studies have shown empirical evidences of interstate competition in policy

liberalization favoring FDI. Using information on changes in laws and regulations favoring FDI in 148 countries during the 1992–2009 period, Cooray et al. (2014) find a positive relationship between policy changes favorable to FDI in one country and the liberalization of FDI policy changes in other countries. In addition, they find that such race to the bottom in FDI regulation was more intense among developing countries. Empirical evidences of a race to the bottom to attract FDI have also been found in the area of labor market regulation where countries compete in labor standards (Davies and Vadlammanati, 2013).¹ Although this literature is insightful to understand the process by which countries compete to attract FDI, to the best of our knowledge it does not address interactions between different types of regulation. For instance, using data from the Fraser institute index of economic freedom for 117 developing countries during the period 1995-2013, a simple statistical analysis shows a clear negative correlation between FDI deregulation and labor market reform (Figure 1).²



¹ Interstates competition in tax, environmental standards, economic policy reforms and bilateral investment treaties has also been the focus a vast literature that rely on spatial econometrics. The reader may refer to Cooray et al. (2014) for an excellent survey of this literature.

² The statistical analysis indicates a correlation coefficient of -0,95 for the whole period. See figure 1 in the appendix.

Source: Authors' calculation. The data are taken from the Fraser institute index of economic freedom database. The indicator "Mean investment restriction" is extracted from the Fraser institute indicator "Foreign ownership / investment restriction" (Area 4Di). The latter is based on the following two Global Competitiveness Report questions: [1] "How prevalent is foreign ownership of companies in your country? 1 = Very rare, 7 = Highly prevalent." [2] "How restrictive are regulations in your country relating to international capital flows? 1 = Highly restrictive, 7 = Not restrictive at all. Thus a high score shows a high level of FDI deregulation. The indicator "Mean labor market flexibility" is extracted from the Fraser institute indicator "labor market regulation" (Area 5B) which shows the average of the following sub-indicators: hiring regulation and minimum wage, hiring and firing regulations, centralized collective bargaining, hours regulation, mandated costs of workers dismissal, conscription. A high score is associated with a high level of labor market flexibility. The statistical analysis indicates a correlation coefficient of - 0,95 for the whole period.

The countries studied are the following: Albania, Algeria, Angola, Argentina, Armenia, Azerbadjian, Bahrain, Banglaesh, Barbados, Benin, Bolivia, Botswana, Brazil, Brunei, Bulgaria, Burkina, Burundi, Cambodia, Cameroon, Centre african Republic, chile , China, Colombia, Democratic Republic of Congo, Republic of Costa Rica, Ivoary Coste, Croatia, Cyprus, Czech Republic, Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Ethiopia, Fiji, Gabon, Gambia, Georgia, Ghana, Guatemala, Guinea Bissau, Guyana, Honduras, hungary, India, Indonesia, Iran, Israel, Jamaica, Japan Jordan, kazakstan, kenya, South Korea, Kuwait, kyrgyz Republic, Latvia, Lebanon, lybia Lithuania, Macedonia, Madagascar, Malawi, Malaysia, Mali, Mauritania, Mauritius, Mexico Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Oman, Pakistan, Panama, Pap New Guinea, Paraguay, Peru, Philippine, Poland, Qatar, Romania, Russia, Rwanda, Saudi Arabia, Senegal, Sierra leone, Singapore, Slovakia, Slovenia, South Africa, Sri lanka, Syria, Taiwan, Tajikstan, Tanzania, Thailand, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, Uruguay, Venezuala, Vietnam, Yemen, Zambia, Zimbabwe.

According to figure 1, the blue line shows the trend in FDI deregulation which is captured by the indicator of easing investment restrictions. From 1995 to 2001, the graph shows a strengthening of foreign investment policy liberalization which is materialized by an increase in the indicator. The orange line shows the trend in labor market reform captured by the indicator of labor market flexibility. Surprisingly, from 1995 to 2001 the graph exhibits a weakening of labor market reform towards more flexibility, as shown by a decline in the indicator. These trends represent a puzzle for political economists as developing countries' policies towards FDI liberalization should have been accompanied by others set of deregulation such as labor market reforms. Indeed, studies have provided empirical evidence that rigidities on labor markets are deterrent to FDI inflows (Culem, 1988; Cheng and Kwan, 2000; Dewit et al. 2009, Javorcik and Spatareanu, 2005). The reason being that foreign investors seek to minimize total labor costs induced by labor market rigidities. Hence, this puzzling pattern of deregulation invite us to challenge the assumption of a benevolent government acting in the interest of the public free from interest groups' influence. Another puzzle is observed during the period 2001 to 2013.

On the one hand, developing countries have gradually reformed their labor market, as shown by an increase in the labor market flexibility indicator. On the other hand, they have reintroduced FDI regulations. This last development points out to the role played by special interests in the formation of FDI restrictions. Indeed, domestic firms who compete with MNCs for local consumers may support FDI restrictions as a way to preserve their market shares (Chari and Gupta, 2008). Empirical evidences of such behaviour is found in Pandya (2007). Using an original dataset of FDI regulation covering the period between 1962-2000 over 150 countries, 57 industries and 12 specific regulations that represent the most common barriers to FDI, she found that industries in which firms invest to gain market access such as service industries are more likely to be restricted, as powerful domestic producers lobby for protection.

Addressing these puzzles requires analyzing regulations and its dynamic from the standpoint of political economists where regulation may be the result of a complex interplay between various special interests in the society (Rodrik, 1996). This paper takes this challenge and provides a theoretical model that analyzes the interaction between FDI policies and labor market policies from a « *political economy perspective* ». To the best of our knowledge, it has not been analyzed so far. Hence, the main question investigated in this paper is how external FDI liberalization policies affects the degree of labor market reform. To address this question, we develop a political economy analysis based on a common agency model of lobbying (Grossman and Helpman, 1994) and argue that FDI liberalization policies hamper labor market reform towards more flexibility in small countries and enhance it in large countries. The strategic use of labor market policy by domestic firms exposed to foreign competitors constitutes the main driver of these two theoretical findings.

The rest of the paper is organized as follows. Section 2 presents the framework of our model in which we consider that the society is not homogenous with respect to citizen's beliefs over labor market reform. In Section 3, we describe the political process of the model and analyze the setting of the reform on labor market as a political compromise pressured by interest groups. The latter are composed of an industry lobby and a trade union that have opposed interests, and they both lobby the government by offering political campaign contributions. In Section 4, we investigate the policy

distortion resulting from interest groups' influence by comparing the equilibrium level of reform with its socially optimal value. In Section 5, we explore how exogenous FDI liberalization policies affects the equilibrium level of labor market reform. Section 6 provides concluding remarks.

2. Literature review

In the field of political economics, the academic literature has mainly focused on the relationship between FDI decision and endogenous trade policies. It started with the seminal argument that foreign firms try to circumvent protectionist barriers that impeded exports sales via setting up local production (Corden, 1974). Other formulation refers to the *quid pro quo* FDI, where the motive for foreign investment is the pre-emption barriers that might otherwise be implemented (Baghwati, 1985).³ Dinopoulos and Wong (1991) have shown that increased FDI by foreign entities will reduce protection threats against foreign imports in the host country. *Quid pro quo* investment is thus described as “*indirect rent-seeking*” via consensual policies (Hillman and Ursprung, 1999). The *quid pro quo* investor seek a liberal trade policy, and will eventually be deterred if trade liberalization does not occur. For instance, Zhao (1996) has demonstrated how such investment is pre-empted if labor unions lobby a host country's government for protectionist policies. Similarly, Hillman and Ursprung (1999) argue that such foreign investment could not take place if the foreign investor acquires a domestic monopoly firm. Confronting to import competition, the foreign investor supplying the domestic market may thus lobby for protection. The focus of this literature is whether the presence or threat of protection gives rise to FDI. On the other hand, other papers have studied how the presence of multinational firms affect the emergence of protection. In Hillman and Ursprung (1993)'s model, domestic and multinational firms

³ See Baghwati et al. (1992) for a survey.

exposed to foreign competition lobby for protection in the jurisdictions where they have plants.⁴ Contrary to Hillman and Ursprung, Ellingsen and Warneryd (1999) developed a model where the domestic industry lobby for less protection, as a high level of protection could attract more FDI aimed at avoiding trade barriers and thereby harming domestic firms.

In the literature mentioned above, most theoretical studies have analyzed the political economy of FDI in interaction with trade policies. The interaction between FDI politics and labor market regulation has not been addressed however. And yet, the literature on the political economy of labor market reform has well documented that powerful interest groups such as business interests and trade unions compete to affect labor market regulations (Saint-Paul, 2004; 2010). Deregulating the labor market through, for instance, reduction in unemployment benefits or lower minimum wage would generate winners and losers, which leads some powerful stakeholders to be politically influential and block the reform process. For instance, Jurajda and Mathernova (2005) have indicated that reforms towards more flexibility in the labor market were lacking in the Czech Republic due to powerful trade unions that were closed to the ruling party and able to organize nation-wide strikes. Also, in 2004, the newly elected Slovene government proposed a series of reforms aimed at increasing the competitiveness of Slovenia. One of the more discussed reforms was the suggested reforms targeted at increasing labor market flexibility. Studying the political economy factors of this reform, Cok et al. (2009) have provided a game theoretic model and shown that reforms' implementation depended on the opinions of low productivity workers about potential benefits of the reform. The argument is that reforms that could be in the long run, beneficial to the wider public are being negatively interpreted by trade unions and the media. Indeed, unions often put forward the potential negative short term consequences for some groups in the labor market. As a result, governments, afraid of losing their positions in the following elections, were reluctant to implement reforms that might be perceived by wider public as harmful to the welfare of the masses. They also found empirical support for their hypothesis, as the majority of the proposed labor market

⁴ They however show that the presence of multinational firms in an industry may encourage trade liberalization under specific conditions.

reforms were not implemented due to huge resistance of trade unions and low-income citizens. Labor market regulations are therefore expected to be more extensive when the trade unions are more powerful, regardless of which government is in charge (Becker, 1983; Botero *et al.*, 2004).

2. The model

In this section we develop the assumptions of our basic economic model. We describe the utility functions and their arguments. In the spirit of Sibert and Sutherland (2000) and Tagkalakis (2006), we formulate the unemployment equation as follows:

$$u = a (\ln w - \ln \pi) - \delta r \quad (1)$$

where u is the unemployment rate, w is the nominal wage, and π is the inflation rate. Note that $w - \pi$ represents the real wage. We assume that there exists a level of reform $\bar{\theta}$ corresponding to the current level of labor market institutions (related to the current amount of distortions in the labor market) which is normalized to 1 so that its log is zero. Hence, $r = r(\theta) = \ln \theta$ is a composite index that represents the degree of labor market deregulation with $\theta \in [1; +\infty[$ and $\frac{\partial r}{\partial \theta} > 0$. Following Tagkalakis (2006), the structural reform variable, r , is assumed to be a composite index that reduces labor market rigidities; we consider employment protection legislation and union bargaining power in the wage setting process. The reform process is specified as a continuous variable; the more r increases, the stronger the deregulation process is. The parameter a measures the impact of the real wage, ($a > 0$), δ measures that of the deregulation on the labor market ($\delta > 0$). Therefore the unemployment rate increases with the real wage ($w - \pi$) and decreases with the index r (i.e. deviation from current labor market institutions which are related to a certain amount of distortions; so if $r = 0$, no reform is undertaken, and distortions remain at the same level). This latter assumption is supported by empirical

evidence showing the positive impact of labor market deregulation on reducing the unemployment rate (Di tella and Mac culloch, 2005).

The population is composed of N citizens. Following Saint-Paul (2010) we assume that the reform process is associated with debates about the economic effects of the reform. Indeed, people disagree not only because their net gains differ but also because they have a different understanding of how the reform works. In particular, as argued by Gersbach and Schniewind, (2001) people tend to pay more attention to the direct effects of policies than about their indirect ones. For instance, the direct effect of a reduction in the minimum wage is to reduce the income of minimum wage earners; subsequent job creation only comes later. Therefore, contrary to conventional models in political economy which assume citizens' rational ignorance (Down, 1957), we model two types of citizens: those who believe in the beneficial effects of labor market reform (informed citizens) denoted by N^i , and those who do not (misinformed citizens) denoted by N^m . Alternatively, informed and misinformed citizens are assumed to hold correct and biased beliefs respectively.⁵ N represents the total population with $N = N^i + N^m$. To capture the impact of citizens' preferences on the political equilibrium, we assume that citizens' utility is essentially driven by the impact of the reform on their real wage and on the unemployment rate.⁶

The representative utility function of an informed citizen is given by:

$$U^i = (\ln w - \ln \pi)\delta^i r + 1 - \{a (\ln w - \ln \pi) - \delta^i r\} \quad (2)$$

The utility is composed of two components. Given that informed citizens are assumed to hold correct beliefs, the first term, $(\ln w - \ln \pi)\delta^i r$, represents the positive effect of the reform on the real wage, i.e. when the deregulation increases, the representative citizen

⁵ Note that empirical evidences have shown that citizens process the little information that comes to their attention in a systematically biased way (Caplan, 2007). Caplan identifies four biases, namely, the "antimarket", the "antiforeign", the "make-work" and the "pessimistic" bias (Caplan, 2007). The question of the origin of biased beliefs is left out of the paper. Biased beliefs may result from exposure to activist groups (Saint-Paul 2004; Jaeck 2011) or ideology (MacDonald and Rabinowitz, 1993).

⁶ This latter assumption is in line with the results of Mac Culloch et al. (2001) who showed that individuals' happiness increases when the unemployment rate decreases.

believes the reform increases his/her real wage through better allocation of resources and productivity effects. Also, when the unemployment rate decreases, it has a positive effect on the utility captured by the second term, $1 - \{a (\ln w - \ln \pi) - \delta^i r\}$.

The representative utility function of a misinformed citizen is given by:

$$U^m = (\ln w - \ln \pi) \delta^m \frac{1}{r} + 1 - \{a (\ln w - \ln \pi) - \frac{1}{\delta^m r}\} \quad (3)$$

By analogy, because the misinformed are assumed to hold biased beliefs, they focus on the direct effect of the reform (Gersbach and Schniewind, 2001). The first term $(\ln w - \ln \pi) \delta^m \frac{1}{r}$, represents the negative effect of the reform on the real wage, i.e. when the deregulation increases, the representative citizen believes the reform decreases his/her real wage. Also, the representative citizen believes the reform favors unemployment, thus decreasing his / her utility.

This is captured by the second term, $1 - \{a (\ln w - \ln \pi) - \frac{1}{\delta^m r}\}$.

3. The political process

In this section we describe the political process and we assume that the formation of the reform in the labor market is subject to the influence of interest groups. We distinguish two interest groups, namely, trade unions who represent misinformed citizens, and the business interests. These interest groups form two distinct lobbies j , $j = t, d$ where t represents non-believer citizens organized in a trade union and d represents the industry lobby. Both offer political contributions to the government. This money is for ‘direct influence’ as it supports the electoral campaign for the reelection of an incumbent government. As a reward, lobbies expect to obtain a better access to the legislator. Following Olson (1965), we also assume that informed citizens are too numerous to overcome the free-rider problem and that they do not organize themselves into a lobby group. To examine how political contributions impact the equilibrium level of reform,

we use a common agency model of lobbying (Grossman and Helpman, 1994) which is a two-stage game. The timing of the game is as follows. In the first stage, each lobby presents to the government a contribution schedule, $s(r)$, which is contingent upon the level of reform chosen by the government. In the subsequent stage, the government determines the deregulation policy, and collects the political contributions. Before discussing the determination of the political equilibrium, we first define the aggregate welfare of each lobby j . The industry lobby's gross welfare function is represented by the industry profit, $\pi^d(r)$, with $\frac{\partial \pi^d}{\partial r} > 0$, capturing the idea that deregulation on the labor market increases the industry's profit through the decrease in production costs and especially non-wage labor cost. The trade union's gross welfare function is given by:

$$W^t = N^m U^m = N^m \{ (\ln w - \ln \pi) \delta^m \frac{1}{r} + 1 - [a (\ln w - \ln \pi) - \frac{1}{\delta^m r}] \}$$

(4)

Each lobby tailors its contribution schedule so as to maximize its net welfare, which is the difference between the gross welfare and its contributions. Then, the government chooses the policy that maximizes a weighed sum of the aggregate social welfare and the contributions offered to it. Following Grossman and Helpman (1994), we assume that contribution schedules are globally truthful as they reflect everywhere the lobby's true welfare (Bernheim and Winston, 1986).

With this global truthfulness assumption, the political equilibrium is the solution of a program in which the government seeks to maximize an objective function which is the sum of the aggregate social welfare W and the interest of the active lobbies. It is such that⁷:

$$Max G = \varphi^d \pi^d + \varphi^t W^t + W$$

(5)

(r)

⁷ The objective function of the government without considering the global-truthfulness assumption would be as follow, $G = \varphi^d s^d + \varphi^t s^t + W$. If one considers the global-truthfulness property, the original objective function is re-written as equation (5).

The parameter $\varphi^j \in [0,1], j = t, d$ represents the interest group's ability to influence the policymaker. It is subject to certain exogenously determined factors such as political skills. A higher value of φ^j means that the lobby j can better influence the government that attaches a higher weight to the contribution offered by lobby j . We assume that interest groups can have different lobbying efficiencies. Indeed, there is no reason here to presume that one lobby is more efficient than the other in terms of lobbying, and φ^d can be either greater or lower than φ^t .⁸ The social welfare function, W , consists of three components: the informed citizens' welfare, the trade union's net welfare and the contributions received by the government respectively:

$$W = W^i + (W^t - s^t) + (s^d + s^t) \quad (6)$$

where W^i is the informed citizens' aggregate welfare equal to :

$$W^i = N^i U^i = N^i \{ (\ln w - \ln \pi) \delta^i r + 1 - [a (\ln w - \ln \pi) - \delta^i r] \} \quad (7)$$

Solving the maximization problem in (5) with respect to r , we obtain the first-order condition of government optimization:

$$G_r = \varphi^d \pi_r^d + \varphi^t W_r^t + W_r = 0 \quad (8)$$

Here, G_r measures the change in the government's objective function induced by a marginal tightening of the deregulation process r . The second-order condition requires that this variation is decreasing in r such that $G_{rr} < 0$. The relation in (8) contains a key characteristic of the model. Around the truthful equilibrium, a policy change induces a variation in each lobby's contribution that is exactly equal to the variation in this lobby's

⁸ For instance, the “*Labor Codes Battles*” described by Jurajda and Mathernova (2005) showed that the labor code adopted in July 2001 was the result of more efficient trade union compare to the pro-reform group composed of employer associations. On the other hand, a new labor legislation was implemented in 2003 under the newly elected government who happened to be insensitive of trade union's influence. The authors suggested that trade unions were experiencing capacity constraint and lack of organizational skills.

gross welfare. In particular, a marginal increase in r induces variations in the industry lobby and trade union's contributions by the amount of π_r^d and W_r^t respectively. In what follows, we define respectively π_r^d and W_r^t as the industry lobby and the trade union marginal willingness to contribute (MWTC) for a marginal change in the reform, r . In equilibrium, $\frac{\partial \pi^d}{\partial r} = \pi_r^d$ is positive, meaning that the industry lobby is willing to offer more political contributions in exchange for a strengthening of the reform. Also, $\frac{\partial W^t}{\partial r} = W_r^t = -\frac{N^m \frac{1}{\theta}}{(r)^2 \delta^m} - N^m (\ln w - \ln \pi) \frac{\delta^m}{\theta (r)^2}$ is negative, meaning that the trade union is willing to decrease its contribution in exchange of strengthening of the reform. Equation (8) states that the political equilibrium level of reform is chosen as the trade-off between political contributions from interest groups and social welfare.

4. Political equilibrium policy

In this section, our primary focus is to compare the two equilibria and (r°) and (r^*) . r^* is the socially optimal level of reform which corresponds to an equilibrium when there are no direct lobbying. r° is the political equilibrium level of reform when there is direct influence. Analyzing the deviation between r° and r^* will provide us with a better understanding of the distortion resulting from interest groups' influence. Using (8) and rearranging, we first set out the socially optimal level of reform which is the solution of the following first-order condition:⁹

$$W_r(r^*) = W_r^i(r^*) + W_r^t(r^*) + \pi_r^d(r^*) = 0 \quad (9)$$

with $W_r^i(r^*) = N^i \delta^i \frac{1}{\theta} [1 + (\ln w - \ln \pi)] > 0$ and $W_r^t(r^*) < 0$

⁹ When deriving the following condition, we use the relationship $s^t = W_r^t$ and $s^d = \pi_r^d$. This relationship occurs as a result of the global-truthfulness property of the contribution schedules.

The second order condition requires that $W_{rr} < 0$. This equation shows that the strengthening of the reform increases the informed citizens' welfare, decreases the trade union welfare and increases the industry lobby's welfare. The optimal level of reform should balance the three factors. From (9) we get:

$$\pi_r^d(r^*) = -W_r^i(r^*) - W_r^t(r^*) \quad (10)$$

To compare r° and r^* we analyze the equation (8) for $r = r^*$ and given the first order condition $W_r(r^*) = 0$ we obtain:

$$G_r(r^*) = \varphi^d \pi_r^d(r^*) + \varphi^t W_r^t(r^*) \quad (11)$$

We must have $G_{rr} < 0$ as the second order condition. In (11), if $G_r(r^*)$ is positive (negative), the equilibrium level of reform is higher (lower) than the social optimum. It is equal, and $r^\circ = r^*$, when $G_r(r^*) = 0$. If $\varphi^d = 0$, $\varphi^t > 0$, then $G_r(r^*) = \varphi^t W_r^t(r^*)$. When the trade union is the only one lobbying actively, the equilibrium level of reform is lower than optimal level. Indeed, we have $G_r(r^*) < 0$. Similarly If $\varphi^d > 0$, $\varphi^t = 0$, then $G_r(r^*) = \varphi^d \pi_r^d(r^*)$. When the industry lobby is the only one lobbying actively, the equilibrium level is superior than the optimal one, with $G_r(r^*) > 0$. These results are expected.

We consider the particular case where the two lobbies have the same political efficiency such that $\varphi^d = \varphi^f$. Combining (10) and (11) we get:

$$G_r(r^*) = (\varphi^t - \varphi^d) W_r^t(r^*) - \varphi^d W_r^i(r^*) \quad (12)$$

From equation (12), the following proposition shows the relationship between r° and r^* when $\varphi^t = \varphi^d$:

Proposition 1: *If the industry lobby and the trade union have the same lobbying efficiency ($\varphi^t = \varphi^d$), the equilibrium level of reform is lower than the socially optimal level.*

From equation (12), when $\varphi^t = \varphi^d$, $G_r(r^*) = -\varphi^d \{N^i \delta^i \frac{1}{\theta} [1 + (\ln w - \ln \pi)]\} < 0$. This means that r° is lower than r^* . In the case where $\varphi^t = \varphi^d$, when the level of reform is optimally set, $W_r(r^*) = 0$, the value of G_r depends on the two group MWTCs. Under r^* , the government has to balance the impacts of strengthening the level of reform on the trade union's contribution $W_r^t(r^*)$, the industry lobby's contribution $\pi_r^d(r^*)$ and the welfare of informed citizens $W_r^i(r^*)$. Since $W_r^i(r^*) > 0$, $W_r^t(r^*) < 0$, and $\pi_r^d(r^*) > 0$, the condition $W_r(r^*) = W_r^i + W_r^t + \pi_r^d = 0$ implies that $|W_r^t(r^*)| > \pi_r^d(r^*)$. Consequently, the dominant MWTC of the trade union will result in a level of reform lower than its socially optimal level.

5. The effect of FDI liberalization policies

In this section, we assume that the government seek to promote growth and employment, and thereby undertakes exogenous policies aiming at attracting FDI.¹⁰ The latter take the form of FDI liberalization policies aimed at favoring foreign investors' market access.¹¹ Formally, we consider a level of FDI policies $\bar{\varepsilon}$ that corresponds to the current level of

¹⁰ Empirical evidence have shown the positive impact of FDI in reducing the unemployment rate in Latin America (Vacaflores, 2011), Central Europe (Radosevic et al. 2003), the Czech Republic (Dinga and Munich, 2010) and in Italy (Spiezza, 2004).

¹¹ As an example and, building on Pandya (2007), we assume that FDI regulations subjected to the softening process are related to bans on foreign ownership, majority local ownership requirements, mandatory joint ventures, or compulsory investment pre-screening.

FDI rules and regulations which is also normalized to 1 so that its log is zero. Thus, $v = v(\varepsilon) = \ln \varepsilon$ is a composite index that represents the strength of liberalization of FDI policies with $\varepsilon \in [1; +\infty[$ and $\frac{\partial v}{\partial \varepsilon} > 0$. The liberalization process is specified as a continuous variable; when v increases, the liberalization process becomes stronger. It is further assumed that FDI liberalization policies reduce the industry's profit through increased foreign competition and the loss of market shares, we thus have $\frac{\partial \pi^d}{\partial v} < 0$.¹² We now investigate the exogenous effect of FDI policy liberalization on the equilibrium level of labor market policies, $\frac{dr^\circ}{dv}$.

Since $\frac{dr^\circ}{dv} = \frac{-G_{rv}}{G_{rr}}$, we need to know the sign of G_{rv} .¹³ With $G_{rr} < 0$, the sign of $\frac{dr^\circ}{dv}$ is the same as that of G_{rv} . Differentiating G_r with respect to v yields:

$$G_{rv} = \frac{\partial \pi_r^d}{\partial v} (\varphi^d + 1) \quad (13)$$

We thus reach the following proposition. It holds for any $\varphi^j \in [0,1]$.

Proposition 2: *For small countries, FDI liberalization policies leads to more labor market regulation. However, in large countries it enhances more labor market flexibility.*

The political effects of FDI liberalization policies on the equilibrium level of labor market reform depend on the impacts of relaxing FDI policies on G_r , which is the marginal benefit to the government arising from strengthening the labor market reform. Here, G_{rv} may be either positive or negative depending on the value of $\frac{\partial \pi_r^d}{\partial v}$. When $\frac{\partial \pi_r^d}{\partial v} < 0$, we have $G_{rv} < 0$. The liberalization of FDI policies leads to weaken the reform process on the labor market. This result has to do with the dominance of the trade union's

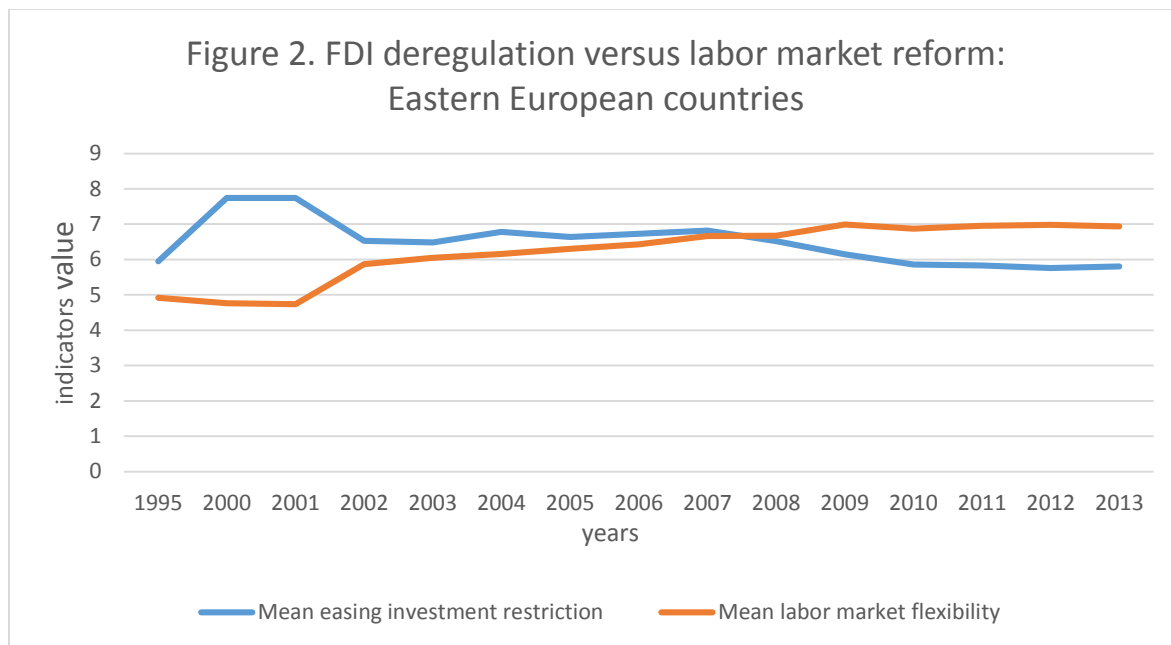
¹² These assumptions are in line with FDI's negative effects for local firms such as loss of market share due to increased foreign competition (Chari and Gupta, 2008).

¹³ With $G_{rv} = \frac{\partial G_r}{\partial v}$ and $G_{rr} = \frac{\partial G_r}{\partial r}$, we have $dG_r = G_{rv} dv + G_{rr} dr^\circ = 0$.

MWTC over the industry lobby's one. Indeed, recall that $W_r(r^*) = W_r^i + W_r^t + \pi_r^d = 0$, under the influence of FDI liberalization policies we have $|W_r^t(r^*)| > \pi_r^d(r^*)$, leading to a weakening of the equilibrium level of labor market reform. The intuition is that when FDI policy liberalization reduces the positive effect of labor market reform on the industry's profit, $\frac{\partial \pi_r^d}{\partial v} < 0$ as a result of $\frac{\partial \pi^d}{\partial v} < 0$, the industry lobby has paradoxically an incentive to relax its contribution for more deregulation on the labor market. Given that labor market regulation may be deterrent to foreign investors, this strategy would provide the domestic industry greater protection from foreign competition.¹⁴ Our interpretation is that such strategic use of labor market policy would occur in small countries where the market size is small and thereby the potential loss of market shares are high. Therefore, the industry lobby contributing relatively less than the trade union, deregulation on labor market is weakened. Interestingly, this result describes the trend observed for small eastern European countries where a strengthening of FDI deregulation is associated with a decline in labor market reform for the period 1995-2001 (Figure 2).¹⁵

¹⁴ Studies have provided empirical evidence that rigidities on labor markets are deterrent to FDI inflows. (Culem, 1988; Cheng and Kwan, 2000; Dewit et al. 2009, Javorcik and Spatareanu, 2005),

¹⁵ The statistical analysis indicates a correlation coefficient of -0,65 for the period 1995-2013. See figure 2 in the appendix.

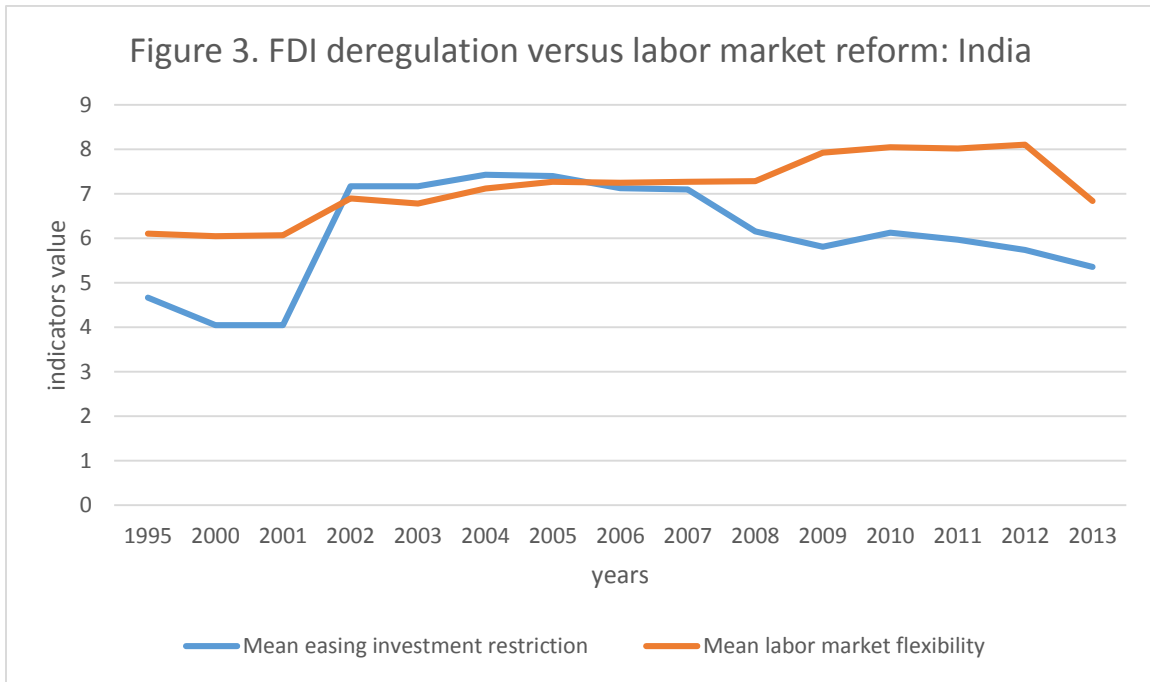


Source: Authors' calculation. The data are taken from the Fraser institute index of economic freedom database. The indicator "Mean investment restriction" is extracted from the Fraser institute indicator "Foreign ownership / investment restriction" (Area 4Di). The latter is based on the following two Global Competitiveness Report questions: [1] "How prevalent is foreign ownership of companies in your country? 1 = Very rare, 7 = Highly prevalent." [2] "How restrictive are regulations in your country relating to international capital flows? 1 = Highly restrictive, 7 = Not restrictive at all. Thus a high score shows a high level of FDI deregulation. The indicator "Mean labor market flexibility" is extracted from the Fraser institute indicator "labor market regulation" (Area 5B) which shows the average of the following sub-indicators: hiring regulation and minimum wage, hiring and firing regulations, centralized collective bargaining, hours regulation, mandated costs of workers dismissal, conscription. A high score is associated with a high level of labor market flexibility. The statistical analysis indicates a correlation coefficient of -0,65 for the whole period.

The countries studied are the following: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia Slovenia, and Ukraine

Alternatively, the negative correlation found for the period 2001-2013 may be explained by the same logic. The increase in FDI regulations, as shown by a decline in the indicator of investment restriction easing prevents domestic firms from using labor market regulation as a mean to protect their market shares, as FDI restrictions already protect them. As a result, domestic firms are incentivized to lobby for more labor market deregulation. The industry lobby contributing relatively more than the trade union, deregulation on labor market is strengthened.

Similarly when $\frac{\partial \pi_r^d}{\partial v} > 0$ we have $G_{rv} > 0$. The liberalization of FDI policies leads to strengthen the reform process on the labor market. This is due to the dominance of the industry lobby's MWTC over the trade union one. In this case, when FDI policy liberalization does not hamper the positive effect of labor market reform on the industry's profit, the industry lobby has an incentive to increase its contribution for more deregulation on the labor market as its focus is to reduce its labor costs. Such behaviors is prone to occur in large countries where the market size is large. Therefore, the industry lobby contributing relatively more than the trade union, deregulation on labor market is strengthened. Interestingly, this result describes the trend observed for a large country such as India where a strengthening of FDI deregulation is associated with more labor market reform for the period 2001-2007 (Figure 3).¹⁶



Source: Authors' calculation. The data are taken from the Fraser institute index of economic freedom database. The indicator "Mean investment restriction" is extracted from the Fraser institute indicator "Foreign ownership / investment restriction" (Area 4Di). The latter is based on the following two Global Competitiveness Report questions: [1] "How prevalent is foreign ownership of companies in your country? 1 = Very rare, 7 = Highly prevalent." [2] "How restrictive are regulations in your country relating to

¹⁶ The statistical analysis indicates a correlation coefficient of 0,89 for the period 2001-2007. See figure 3 in the appendix.

international capital flows? 1 = Highly restrictive, 7 = Not restrictive at all. Thus a high score shows a high level of FDI deregulation. The indicator “Mean labor market flexibility” is extracted from the Fraser institute indicator “labor market regulation” (Area 5B) which shows the average of the following sub-indicators: hiring regulation and minimum wage, hiring and firing regulations, centralized collective bargaining, hours regulation, mandated costs of workers dismissal, conscription. A high score is associated with a high level of labor market flexibility. The statistical analysis indicates a correlation coefficient of 0,89 for the period 2001-2007, and 0,84 for the period 2009-2013.

Alternatively, the positive correlation found for the period 2009-2013 may be explained by the same logic.¹⁷ The increase in FDI regulations, as shown by a decline in the indicator of investment restriction easing, provides domestic firms with large gains in terms of earned market shares. As a result, they are not incentivized to lobby for more labor market deregulation in order to reduce their labor costs. The industry lobby contributing relatively less than the trade union, labor market deregulation is weakened.

6. Conclusion

This paper has attempted to bridge the literature on the political economy factors of FDI and FDI related policies and the political economy literature on labor market reforms. Using a common agency model of politics (Grossman and Helpman, 1994), we have proposed a modelling of a reform aimed at deregulating labor markets that accounts for the heterogeneity of citizen’s beliefs over the effect of the reform as well as for the impact of direct lobbying of an industry lobby and a trade union which compete for influencing the reform process.

Proposition 1 has shown that when the two lobbies are active and holding the same lobbying efficiency, the outcome is socially distortive as the equilibrium level of labor market reform is biased towards a lower level compare to the optimal one. This result is in line with the existing literature and gives some rationales to explain the failures of labor market reforms in the transition economies such as in Slovakia (Jurajda and Mathernova, 2005).

¹⁷ The statistical analysis indicates a correlation coefficient of 0,84 for the period 2009-2013. See figure 3 in the appendix.

In analyzing the interaction between labor market policies and FDI policies, Proposition 2 has made two interesting findings. First, it has shown that deregulation of FDI policies enhances labor market deregulation. Indeed, our political economy setting has highlighted that the industry lobby in the host country has an incentive to increase its lobbying efforts for strengthening labor market reform, thus reducing its labor cost. The rationale for this behavior is to compensate for the loss of market shares due to increased foreign competition as a result of FDI liberalization policies. This result is more likely to occur in large countries. Conversely, in small countries, our results suggest that deregulation of FDI policies deter deregulation on the labor market. The underlying intuition is that, confronting to strong foreign competition in a context of a small market size, the industry lobby has an incentive to use strategically labor market regulation as a mean to restrict foreign competitors. This analysis of the political economy of FDI in interaction with labor market policy provides the foundations for a new field of study that is promising given the interplay between labor market institutions as a host location advantage and FDI inflows (Dewit et al. 2009; Javorcik and Spatareanu, 2005). Although the results of proposition 2 are supported by stylized facts, conducting empirical tests is an avenue for further research.

Our model has however the following limitations and could be extended in many directions. First of all, we have considered a general index of FDI policies that affect foreign investor's market access. Further research would be aimed at considering specific policies and integrate them into the industry's profit functions. Also, providing a Cournot type duopoly model prior to the political model would allow us to characterize more accurately the role played by the market size in our results. Second, analyzing how the equilibrium level of labor market reform responds to changes in interest group's political skills would increase the realism of the model.

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