### Does Partisanship Affect the Regulation of Foreign Investment?<sup>†</sup>

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#### Very Preliminary Draft - Comments welcome

**Abstract:** this paper that tries to explain the cross-country and temporal variance in national regulation of FDI. The theory looks at government partisanship, which I define in terms of its pro-labor or pro-capital orientation. I present a stylized model of the interaction between foreign investors and host governments. To the extent that labor and capital are complements in production, labor interests are likely to be congruent to those of foreign capital. Relative influence of owners of labor and capital will determine whether investment regimes are friendly or hostile to foreign investors: governments that cater to labor are more likely to welcome foreign investors out. Preliminary tests, using an original measure of investment policy orientation developed by the author, provide partial support to a conditional form of the partisan argument: when in power, pro-labor parties are more likely to enact these policies is constrained by the existence of institutional or partisan constraints.

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#### I. Introduction

Foreign Direct Investment (FDI) has increased dramatically in the last two decades. FDI flows have become an important part of total investment flows, and now play a major role in growth and development (See Table 1, and UNCTAD 2003, Przeworski et al. 2003). National and local governments across the planet have resorted to various types of polices to attract or deter inward FDI. Allegedly, developed countries have converged on less discriminatory regimes towards foreign investors. A tally of the number of regulatory changes in regulation of FDI seems to underscore this trend (see table Table 2). Yet Table 2 also shows that the number of restrictive measures adopted in the last decade is noteworthy. There is also great variance in the orientation of investment regimes across countries and over time, even among OECD countries. In recent years discontent towards foreign investors is rampant not only in crisis-stricken countries of South America, and is expressed in a rhetoric that resonates with the debates of the 1970s.

This paper seeks to explain the observed variance in regulatory regimes towards foreign direct investment.<sup>1</sup> Given that the conditions for investment are present domestic politics is likely to play a major role in shaping how foreign investment is regulated, or how open to FDI countries are. I point to government partisanship as a central explanatory variable for this variance. Despite the potential for aggregate gains, some actors in the host country may win while others may lose. On one hand, owners of factors of production in the host country that complement foreign capital benefit from inflows of FDI; on the other hand, factors that FDI substitutes for are hurt. To date, most studies tend to ignore these distributive effects. The logic of the argument is derived by from a simple formal model based on the assumption that foreign

<sup>&</sup>lt;sup>1</sup> Pinto (2004, 2005) provides evidence that politics in general, and government partisanship in particular, are likely to affect investment performance. Pinto & Pinto (2005), find evidence of the existence of partisan cycles in investment performance at the industry level in OECD countries: when the left is in power, FDI flows tend to be larger to manufacturing sectors, ie: those sectors where FDI is more likely to complement labor and substitute for capital.

capital complements labor in production: as foreign direct investment flows into a host country, labor productivity and wages improve. At the same time, the return on capital is likely to fall, as rents and profits are competed away. Given the differential impact that the allocation of foreign capital has on domestic political groups it is expected that left-leaning governments would be inclined to promote measures that stimulate inflows. Moreover, I speculate, foreign capital owners feel confident that such measures will not be reversed as the policies disproportionately benefit the government's core constituents. Right-leaning governments, on the other hand, would tend to act in the opposite way: prevent investment that has the potential to reduce the marginal productivity of capital, and hence its return.

The literature on FDI has focused on the (aggregate) benefits of direct investment to the host economy: because FDI is valuable, governments would want more of it. The analysis, then, concentrates on the decision of investors usually assumed to be an optimal response to economic, institutional, and other traits of host countries. Based on these characteristics, some governments will be able to attract FDI while others will fail. The analysis tends to overlook the distributive consequences of foreign direct investment, which are likely to affect how governments regulate foreign investment, eventually affecting investment performance. The level of FDI a host country receives, I argue, results from the strategic interaction between a host government and potential foreign investors as proposed by the bargaining literature on foreign investment. Except host governments are partisan: they have a core constituency that they favor. Choices available to the incumbent are indeed constrained by political institutions, as much as they are by partisanship.<sup>2</sup> Provided that labor is a complement of FDI, governments that favor labor will adopt policies that promote investment inflows, while governments that favor owners of capital

<sup>&</sup>lt;sup>2</sup> For simplicity I assume that there are two relevant political actors –owners of labor and owners of capital– and define partisanship as either pro-labor or pro-capital.

will try to restrict those flows. In choosing the policy regime governments anticipate the reaction of foreign investors and respond to it; but investors also anticipate and internalize governments decisions. In turn, the interaction between governments and investors will determine which countries receive more FDI. This interaction between a partisan host government and internationally mobile capital is captured in a simple formal model, which predicts that pro-labor governments will adopt investment regimes that are friendlier to FDI, while pro-business will adopt more restrictive investment regimes.<sup>3</sup> These predictions run counter to the extant literature on foreign investment.

This paper is organized as follows: the following section provides a brief review that positions the argument in the literature literature. In Section III I present a simple model to explain why left leaning governments would welcome foreign investment, while right-leaning governments would oppose. The model is based on simple assumptions on the effect of factor movements on the return to domestic factors of production.<sup>4</sup> From this model I derive two propositions: the first proposition links the partisanship of governments to foreign investment

<sup>&</sup>lt;sup>3</sup> The problem faced by governments in regulating foreign investment is analogous to those discussed in the literature on optimal taxation. An optimal tax system schedule is that which places the burden on those factors that are least elastic to taxes. An ex-ante optimal tax policy is one that maximizes consumer welfare subject to government and private-sector budget constraints. See Eichengreen (1990). Hence mobile capital, which is usually more elastic to taxes, should be taxed more lightly. Democratic governments find it difficult to commit to such optimal tax schedule: provided that capital income is more concentrated than labor income -i.e.: mean and median factor endowments differ- a majority of the population would gain from shifting part of the tax burden to capital despite efficiency losses (Persson 1994). Delegating policy-making authority to conservative agents is usually the prescribed recipe to mitigate this problem, resulting in a lower tax burden on capital (Persson 1994). The mechanism discussed below is different: To the extent that labor and capital are complements, and governments can discriminate between internationally mobile and immobile capital a different equilibrium is possible, one where leftleaning governments are gentler and kinder to foreign investors, and right-leaning governments are hostile. <sup>4</sup> Note that I am not trying to explain taxation of foreign capital here. I use tax as a proxy for the numerous policy instruments that governments use to attract or deter the inflow of FDI, including tax schedules and taxation system, regulatory regimes on sectoral activity and market structure, trade policy, local procurement rules, differential exchange rate regimes. All these instruments and regulations either affect the cost of doing business or the price that firms can charge for their goods and services, and are hence reflected in the firms' bottom line. For simplicity the model assumes that the host government controls only one policy instrument to regulate FDI -a tax rate that the host government levies on internationally mobile capital- which must be interpreted as the summation of all the government intervention in multiple issue areas, which have affect the investors' bottom line. On the effect of taxation on the activity of multinational corporations see Hines (2001) and Desai, Foley & Hines (2002).

regimes. It states that the larger the value that government agents place on the political support of labor, the lower the tax schedule (proxy for foreign investment regime) offered to foreign investors. The second proposition links investment regimes to investment outcomes: the larger the value that government agents place on the political support of labor the higher the level of foreign investment in the country will be.<sup>5</sup> Next, I discuss the model and its predictions, linking actors' preferences to government orientation. Section IV discusses the challenges faced in the empirical part of the project since there is no good aggregate measure that would capture all policy dimensions used by governments to regulate foreign investment. Many issue areas affect the expected return to foreign capital in general and MNC activity in particular.<sup>6</sup> Golub (2003) constructs a measure of FDI specific restrictions for OECD countries, covering requirements such as limitations on foreign ownership, screening or notification procedures, and management, and operational restrictions. Golub finds that most OECD members have converged towards lower levels on restrictions of this nature, yet there is variance even among industrialized countries, particularly when focusing on sectoral restrictions. In section IV, I introduce an original measure of investment policy orientation based on FDI performance (ie: the behavior of foreign investors). The measure is constructed using a gravity model of bilateral flows: I regress FDI inflows to a host country, on variables measuring economic conditions in home and host countries, distance and other frictional variables. I use the residual obtained from the second stage as proxy for aggregate investment policy orientation of the host country.<sup>7</sup> Last, I test the partisan hypothesis side by side with other political explanations, especially political constraints: the logic is simple, partial governments would only be able to advanced their political agenda if

<sup>&</sup>lt;sup>5</sup> In the empirical section of this paper I concentrate on the first prediction. The effects of partisanship on investment performance are explored elsewhere (Pinto 2004; Pinto & Pinto 2005).

<sup>&</sup>lt;sup>6</sup> See Golub (2003) and Pinto (2004) for an in-depth discussion of government regulation of FDI and the activity of multinational corporations.

<sup>&</sup>lt;sup>7</sup> Hiscox & Kastner (2002) develop a measure of trade policy orientation using a similar technique.

the institutional rules allow them to change the status quo in their preferred direction (see Tsebelis, 2002; Cox & McCubbins 2001). As the number of actors whose acquiescence is required to pass policy increases –ie: the incumbent is politically or institutionally constrained-changes in government partisanship are less likely to be translated into large departures from the status quo. Investment policy is no exception. The evidence presented in section IV provides preliminary support to a conditional version of the partisan theory of foreign investment policy regulation put forward in this paper.

#### **II. Placing the Argument in the Literature**

Over the past decade scholars from diverse backgrounds have churned out thousands of articles seeking to explain the relationship between globalization and politics including its causes and consequences.<sup>8</sup> More recently globalization theorists argue that as markets internationalize governments become increasingly constrained to the extent of losing policy autonomy.<sup>9</sup> Although there is evidence to suggest that increasing internationalization of production, and flows of goods, services and factors of production has had significant distributive effects<sup>10</sup>, there is little evidence to suggest that regulatory standards have been compromised.<sup>11</sup> What we know for certain is that globalization has played itself out differently in different countries, triggering a variety of political conflicts over distribution and policy.<sup>12</sup>

<sup>&</sup>lt;sup>8</sup> Wood (1991, 1994), and O'Rourke and Williamson (1999), provide excellent accounts of these trends.

<sup>&</sup>lt;sup>9</sup> See Vernon (1971), Strange (1996), among others.

<sup>&</sup>lt;sup>10</sup> The Stolper-Samuelson theorem proves that the flow of goods and services is likely to affect owners of factors of productions differently based on their relative scarcity, and hence we have accepted that trade is likely to have distinctive effect on politics (see Stolper & Samuelson 1941; Rogowski, 1989, 1991; Frieden, 1991). Robert Mundell has shown that the effect of factor mobility is equivalent to that of trade (Mundell 1957). The claim that capital mobility –sectoral or international– may affect the demand for policy in different issue areas ranging from trade, through monetary, social and fiscal policy is fairly uncontroversial. See Milner (1988), Hiscox (2003), Rickard (2004), Alt et al. (1999), Boix (2003), Adsera and Boix (2002), among others.

 <sup>&</sup>lt;sup>11</sup> Governments retain substantial powers in most major policy areas, including public finance and redistribution, trade, financial market regulation, and environmental protection see Garret (1998), Kahler (1998), Vogel (1996).
 <sup>12</sup> Polanyi (1957), Katzenstein (1978), Gourevitch (1986), Verdier (1998), Cameron (1978), Rodrik (1991).

The analysis of FDI is one of the most recent areas of globalization that scholars have turned to in recent years.<sup>13</sup> A recent body of literature that analyzes the determinants of foreign investment flows.<sup>14</sup> Yet, most of the scholarly work in this issue area either takes the content of the regulatory framework as given, or analyzes investors' reactions to political characteristics of the host country such as regime type and the existence of institutional constraints, or lack thereof.<sup>15</sup> And this is problematic for the following reasons: on one hand, policy regimes adopted by governments are likely to affect investment decisions. On the other hand, foreign investment affects the relative prices paid to owners of capital and labor in the host country, creating incentives on these actors to try to influence government to adopt their preferred policy regime.<sup>16</sup> In order to make predictions about these reciprocal effects we need to model the strategic interaction between investors and governments.

Among those that actually look at the disparate effects of direct investment flows on different actors in the host country we find *dependency theory*, which was quite influential in the 1970s.<sup>17</sup> According to scholars in this tradition, local capital shares the preferences of foreign capital along several policy dimensions, such as suppressing labor organization and standards, reducing taxes on capital, and eliminating environmental regulations.<sup>18</sup> These shared preferences are advanced politically in a *triple alliance* with authoritarian governments aimed at exploiting the popular sectors in the host country. These predictions are likely to hold when foreign and domestic capital are complements, not substitutes. In the latter case this alliance cannot be stable,

<sup>&</sup>lt;sup>13</sup> Henisz (2000, 2002), Delios & Henisz (2003), Li & Resnick (2003), Jensen (2003).

<sup>&</sup>lt;sup>14</sup> Carr, Markusen & Maskus (2001), Markusen & Maskus (1999a, 1999b, 2001a, 2001b)

<sup>&</sup>lt;sup>15</sup> See, inter alia, Henisz (2000), Rogowski (2003), Jensen (2002).

<sup>&</sup>lt;sup>16</sup> The consequences of restricting capital mobility are discussed in Quinn & Inclan (1997), Quinn (1997), Alfaro (2004) and Alesina & Tabellini (1989); these four papers focus on capital controls, but make contrary predictions. See also, Alesina, Grilli & Milesi-Ferretti (1994).

<sup>&</sup>lt;sup>17</sup> On dependency and multinational activity see Evans (1979), Evans & Gereffi (1982), Gereffi (1983) among others.

<sup>&</sup>lt;sup>18</sup> See Kahler (1998) and Garrett (1998) for a critical review on this literature.

as Jorge Dominguez (1982) has persuasively argued over two decades ago: shared interests in reducing taxes on capital and suppressing organized labor cannot explain why domestic capital would tolerate foreign capital inflows that are likely to compete their rents away.

Contrary to the old dependency claim, I argue that the preferences of owners of labor, not capital, are more likely to be in line with those of foreign investors. The reason is simple: to the extent that labor and capital are complements in production, inflows of capital change the marginal product of labor and capital, hence affecting relative return to owners of domestic factors of production. The effect on capital, whose marginal product is likely to decrease with an inflow of capital that changes the relative labor to capital ratio, is predicted to be negative, while the effect on labor is likely to be positive.<sup>19</sup> Section III discusses a partisan theory of FDI policy orientation constructed around these premises.

#### **III. Distributive Concerns, Partisanship and Regulation of FDI**

In this section I introduce a stylized version of the interaction between host governments and investors. For simplicity I assume that foreign capital owners care about the net rate of return to investing in a host country, which is affected by the conditions offered to them by host governments, and the likelihood that those conditions will be enforced.<sup>20</sup> I also assume that, if unconstrained, the host government would like to lure investors in, and extract as much from foreign investors as they can. However, when host governments are responsive to domestic actors –which organize politically around their endowments of labor or capital– they would offer

<sup>&</sup>lt;sup>19</sup> There is profuse of evidence of instances when labor opposed the outflows capital (Caves 1996), and anecdotal evidence on management and capital owners complaining against foreign investment in Europe: Anthony Rowley, Onto the drawbridge; Japanese and South Korean firms lay siege to 'fortress' Europe, *Far Eastern Economic Review*, May 18, 1989 v144 n20 p68(3). Or even the American public protesting against Japanese interests investing in the US in the early 1990s. Financial Times, October 4, 1989, Chief of Sony tells why it bought a part of America's soul. See Pinto (2004), especially chapter 1.

<sup>&</sup>lt;sup>20</sup> After economic shocks investors would also prefer a policy schedule that automatically adjusted to their advantage, i.e.: that the contract offered to them would change when the state of the world changes in an unfavorable manner to them, but not otherwise.

and adhere to a *contract* that, at the same time, minimizes domestic political backslash according to their type.

The return to labor and capital is determined by their marginal contribution to output. For simplicity I assume that the production function is homogenous, that there are constant returns to scale, and that factors are paid according to their marginal contribution to output. It becomes apparent that inflows of capital will affect the return received by domestic labor and domestic capital.<sup>21</sup>

The prediction from the model is that governments that cater to a domestic coalition built around labor will offer conditions that are more favorable to foreign investors, while governments who draw their support mostly from capital owners will be less favorable. Another result, explored elsewhere, is that inflows of foreign direct investment will be larger under prolabor/left leaning governments, than under pro-capital/right leaning governments, all else equal.

#### **Autonomous Government and FDI**

The model starts with two actors: a *host government*, and a *foreign investor*. These actors receive a payoff from their interaction that takes the form of tax revenue ( $\tau$ ), in the case of *government*, and return to investment in the host country to the *foreign investor*. The foreign investor has two options: she can invest at *home* (rest of the world), action for which she would receive a return *r* (net of home taxes), or she can invest abroad, receiving a return to her investment, which we will call R. Let K<sup>*F*</sup> be the amount invested by foreign investors in the host country, while K<sup>*D*</sup> is the amount invested in this market by domestic capital. The total amount invested in the host country by foreign and domestic investors is K, where:

 $\mathbf{K} = \mathbf{K}^F + \mathbf{K}^D$ 

<sup>&</sup>lt;sup>21</sup> In order to have this effect, investment inflows should have the potential to affect the stock of capital in the host country. I also assume a homogeneous technology and abstract from bargaining issues which may result in returns that differ from those determined by their contribution to output.

The indirect utility function of the host government  $(U^G)$  is a function of the taxes levied on capital:

$$\mathbf{U}^{G} = \boldsymbol{\tau} \left( \mathbf{K} \right) \tag{1}$$

Assume, for simplicity, that domestic capital is (relatively) inelastic to taxes:

$$\mathbf{K}^{D} = \overline{\mathbf{K}}$$

Output (y) is produced according to:

$$y = f(K, L)$$

The marginal product of capital is:

$$f_{k}(K)$$

The return (R) to a foreign investor in the host country would be:

$$R \equiv f_{k}(K) - t$$

Where (t) is a tax raised on foreign investment.<sup>22</sup> R must be at least equal to r (the return abroad),

for I to invest in the host country:

$$R = f_k(K) - t = r \implies f_k(\overline{K} + K^F) - t = r$$
(2)

From equation (2) we can derive the amount of foreign investment ( $K^F$ ) that flows into the host country, which is a function of foreign investors reservation value (return abroad or R), the rate or return in the host country ( $r = f_k(K)$ ) and the taxes (t) levied by the host government on foreign capital (proxy for regulatory regime).

$$R + t = f_k(K) \Longrightarrow R + t = f_k(\overline{K} + K^F)$$
(3)

$$\mathbf{K}^{F} = \left(\frac{r+t}{\alpha}\right)^{1/(\alpha-1)} - \overline{\mathbf{K}}$$

<sup>&</sup>lt;sup>22</sup> Assume, for simplicity, that (y) is linearly homogeneous and takes a Cobb-Douglas functional form  $(y = A K^{\alpha} L^{1-\alpha})$  and that A=1, L=1 and  $\alpha \in (0,1)$ . In this special case, the marginal product of capital is:  $f_k(K) = \alpha K^{\alpha-1}$ . The second and third order derivatives of output with respect to K are, respectively:  $f_{kkk} = \alpha (\alpha-1) K^{\alpha-2}$  and  $f_{kkk} = \alpha (\alpha-1) (\alpha-2) K^{\alpha-3}$ . Then, marginal return to capital becomes:  $\alpha (K^F + \overline{K})^{\alpha-1} - t = r$ , and the amount of foreign investment flowing into the country is:

Equation (3) tells us how t affects  $K^F$ . Figure 10 depicts the relationship graphically. Note that:

 $\frac{dK}{dt} = \frac{dK^{F}}{dt}$  since domestic capital is assumed to be constant, and *t* is levied on foreign capital

alone. Then:

$$\mathbf{K}(\mathbf{t}) = \mathbf{K}^{F}(\mathbf{t}) + \mathbf{K}^{D} = \mathbf{K}^{F}(\mathbf{t}) + \overline{\mathbf{K}}$$

The amount of  $K^F$  flowing into the host country is marked by the intersection of  $f_k(K)$  and the constant R + t –ie: when the return to capital in the host, minus the tax paid to the host government equals the rate of return abroad. When the host government reduces *t* to *t'*,  $K^F$  rises to  $K^F_{t'}$ . If the government, on the other hand, raised *t* to *t''*, the amount of foreign investment flowing into the host country would fall to  $K^F_{t''}$ .

Hence, from (2) we obtain:

$$f_{kk} \quad \frac{dK^F}{dt}dt - dt = 0 \implies \frac{dK^F}{dt} = \frac{1}{f_{kk}}$$
(4)

By assumption (concavity of  $f_k$ ), we know that  $f_{kk} < 0 \Rightarrow$ 

$$\Rightarrow \frac{\mathrm{dK}^{F}}{\mathrm{dt}} = \frac{1}{\mathrm{f}_{\mathrm{kk}}} < 0 \Rightarrow \frac{\mathrm{dK}^{F}}{\mathrm{dt}} < 0 \tag{5}$$

Next, assume that  $\tau(K)$  takes the following functional form:

$$\tau(\mathbf{K}) = \mathbf{t} \mathbf{K}(\mathbf{t})$$

The host government's maximization problem becomes:

$$\max_{t} t K^{F}(t) \tag{6}$$

The First Order Condition (FOC) to this maximization problem is:

$$t: K^F + t \frac{dK^F}{dt} = 0$$

The Second Order Condition (SOC) is:

$$\frac{\mathrm{d}\mathbf{K}^{F}}{\mathrm{d}t} + \frac{\mathrm{d}\mathbf{K}^{F}}{\mathrm{d}t} + t\frac{\mathrm{d}^{2}\mathbf{K}^{F}}{\mathrm{d}t^{2}} < 0$$

From (5) we know that the first two terms are negative  $(dK^F/dt=(f_{kk})^{-1} < 0)$ , while  $d^2K^F/dt^2$  can be derived by assuming a functional form of the production function.<sup>23</sup>

The optimal tax rate ( $t^*$ ) that maximizes the government's utility function, provided that the first and second order conditions are fulfilled, is implicitly defined by:

$$t^* = \frac{-K^F}{\frac{dK^F}{dt}}$$
(7)

We could interpret this result in terms of elasticity, where  $t^*$  should be chosen such that, in equilibrium, capital elasticity is equal to 1. The intuition behind this result is that a revenue maximizing government internalizes the effect of taxes on inflows, and the effect of inflows on the return to capital in the host country, which run in opposite directions.<sup>24</sup>

### Foreign Investment and Distributive Concerns:

What would happen when the host government is accountable to domestic actors? Following Hillman (1982), I model a political support function, where government not only cares about revenue but looks after the fate of two types of domestic actors: workers and owners of capital.<sup>25</sup> In the political support function reproduced below, the government's objective function contains an indirect utility derived from the weighted average of the welfare of domestic labor and capital,

<sup>&</sup>lt;sup>23</sup> When the production takes a Cobb-Douglas functional form, the SOC to the government's maximization problem is:  $t < K^{-1} (2 \alpha (\alpha - 1))/(\alpha - 2)$ .

<sup>&</sup>lt;sup>24</sup> Note that these conclusions are driven by the assumptions that the host government's only concern is to maximize revenue, that domestic capital is fixed and does not change with taxes, and that the only source of revenue depends on the level of foreign investment, of which the government would like to get more rather than less.

<sup>&</sup>lt;sup>25</sup> The political support function model used by Hillman (1982, 1989) to assess the effects of protectionism is derived from the Stigler-Peltzman model of regulation (Stigler 1971, and Peltzman 1976).

and a direct utility derived from increased revenue through taxes levied on foreign capital, as in the model described above.<sup>26</sup>

Political support in the case of capital flows results from the value domestic actors place on the distributive effects associated with factor flows.<sup>27</sup> Utility of domestic actors is affected by the investment decision of the foreign investor ( $K^{F}$ ). An inflow of capital changes the relative endowment of labor and capital in the host country, hence affecting the marginal productivity of these factors of production. Assuming that factor markets are competitive, the entry of capital affects the return to labor positively and that of capital negatively.

There are two actors that have the potential to affect government: labor (L) and capital (*K*), whose utility functions are (respectively):

 $U^{L} = U^{L}(x);$ 

 $\mathbf{U}^{\mathrm{K}} = \mathbf{U}^{\mathrm{K}}\left(\mathbf{z}\right)$ 

Where:

$$\mathbf{x} = \mathbf{w} = \mathbf{f}(\mathbf{K}) - \mathbf{f}_{\mathbf{k}}(\mathbf{K})\mathbf{K}$$

 $z = f_{k}(K) \overline{K}$ 

Since the utility of labor and capital are increasing functions of x and z respectively:

 $U_{x}^{L}, U_{z}^{K} > 0, U_{xx}^{L}, U_{zz}^{K} < 0$ 

In this model the host government is partisan; it weigh the support of labor and capital differently:

$$U^{G} = \tau (K) + \beta U^{L} + (1 - \beta) U^{K}$$
(8)

<sup>&</sup>lt;sup>26</sup> Grossman and Helpman (1994, 2001) adopt a broader form of this political support function originally developed by Hillman, where government's selection of policy outputs result from a trade-off of domestic welfare for political contributions. It also differs from the function used by Dutt & Mitra (2005). <sup>27</sup> As derived from the Mundell equivalence proposition and the Stolper-Samuelson theorem.

This is captured by the parameter  $\beta \in [0,1]$  in (8). A higher value of  $\beta$  reflects a government that values the support of domestic labor, while a lower value implies that the government that pays more attention to the preferences of domestic capital. Replacing x and z from above, the host government's utility function is:

$$U^{G} = t K^{F} + \beta U^{L}(x) + (1 - \beta) U^{K}(z)$$

$$U^{G} = t K^{F}(t) + \beta U^{L}(x) + (1 - \beta) U^{K}(f_{k}(K)K^{D})$$

$$U^{G} = t K^{F}(t) + \beta U^{L}(f(K(t)) - f_{k}(K(t))K(t)) + (1 - \beta) U^{K}(f_{k}(K)K^{D})$$
(9)

To simplify the analysis I will assume that that domestic capital is risk neutral, in which case:  $U^{K} = z$ . The maximization problem becomes:

$$\max_{t} tK^{F}(t) + \beta U[f(K(t)) - f_{k}(K(t))K(t)] + (1 - \beta)f_{k}(K(t))\overline{K}$$

First Order condition (FOC):

$$t: K^{F} + t \frac{dK^{F}}{dt} + \beta U_{x} \left[ f_{k} \frac{dK^{F}}{dt} - f_{kk} \frac{dK^{F}}{dt} K - f_{k} \frac{dK^{F}}{dt} \right] + (1 - \beta) f_{kk} \frac{dK^{F}}{dt} \overline{K} = 0 \implies$$
$$t: K^{F} + t \frac{dK^{F}}{dt} + \beta U_{x} \left[ -f_{kk} \frac{dK^{F}}{dt} K \right] + (1 - \beta) f_{kk} \frac{dK^{F}}{dt} \overline{K} = 0$$

Second Order Conditions (SOC):

$$2\frac{dK^{F}}{dt} + t\frac{d^{2}K^{F}}{dt^{2}} + \beta \left[ U_{xx} \left( f_{kk} \frac{dK^{F}}{dt} K \right)^{2} \right] - \beta U_{x} \left[ f_{kkk} \left( \frac{dK^{F}}{dt} \right)^{2} K + f_{kk} \frac{d^{2}K^{F}}{dt^{2}} K + f_{kk} \left( \frac{dK^{F}}{dt} \right)^{2} \right] + (1 - \beta)\overline{K} \left[ f_{kkk} \left( \frac{dK^{F}}{dt} \right)^{2} + f_{kk} \frac{d^{2}K^{F}}{dt^{2}} \right] < 0$$

This gives a solution (as long as the SOC are satisfied) and other parameters of the model, which implicitly defines  $t^p$ :

$$t^{p} = -\frac{K^{F}}{\frac{dK^{F}}{dt}} - \beta \frac{U_{x} \left(-f_{kk} \frac{dK^{F}}{dt}K\right)}{\frac{dK^{F}}{dt}} - (1-\beta) \frac{\left(f_{kk} \frac{dK^{F}}{dt}\overline{K}\right)}{\frac{dK^{F}}{dt}}$$

Which can be further simplified to:

$$t^{p} = -\frac{K^{F}}{\frac{dK^{F}}{dt}} - \beta [U_{x}^{L}(-f_{kk}K)] - (1-\beta)(f_{kk}\overline{K})$$
(10)

Comparing (7) and (10), it becomes apparent that the level of  $t^p$  varies with  $\beta$ .<sup>28</sup> A simple comparative statics exercise underscores this conclusion:

First, take the first order condition (FOC) of the government's maximization problem, and let  $G = d\tau/dt$ , so that the FOC G=0 implicitly defines the relationship between t and the exogenous variables,  $\beta$  in particular. By the Implicit Function Theorem:

$$(dt/d\beta) = - [(dG/d\beta) / (dG/dt)]$$

Note that  $(dG/dt) = (d^2\tau/dt^2) < 0$  if SOC is satisfied.

In addition,

$$\frac{dG}{d\beta} = -U_x^L f_{kk} \frac{dK^F}{dt} K - f_{kk} \frac{dK^F}{dt} \overline{K} < 0$$

Then,  $(dt/d\beta) < 0$ .

In sum, as  $\beta$  increases the optimal tax offered by the host government will decrease. The exact amount of the change can be determined (through simulations) using an explicit production function and an explicit utility function.

Consider the following scenarios: in the first case let's define  $t_L^p$  as the solution to the government's maximization problem when  $\beta=1$ . Comparing (10) with (7) it becomes apparent that when  $\beta=1$ , the optimal tax  $t_L^p < t^*$ . That is, the optimal tax offered by the unconstrained

<sup>&</sup>lt;sup>28</sup> In reduced form:  $t^p = \tau(\beta)$ 

government is larger than the one offered by a government that places higher value on  $U^{L}$  (the utility of labor). On the other hand, when  $\beta=0$  the optimal tax (labeled as  $t_{K}^{p}$ , to distinguish it from  $t_{L}^{p}$ ) we can infer that  $t_{K}^{p} > t^{*}$ . Hence, by transitivity,  $t_{K}^{p} > t^{*} > t_{L}^{p}$ .

It is fair to state that the tax schedule decreases in  $\beta$ . From this we may conclude that a government that places more weight on the support of labor would choose a tax on foreign capital that is lower than the tax structure chosen by a government who places more weight on the support of owners of capital.

The behavior by government affects domestic constituents in different ways, in line with the effects that FDI has on different types of individuals in the host country. This section shows that as investment inflows change the relative endowment of labor and capital, owners of capital will be hurt, while labor should benefit. Translating the previous comparative statics exercise into words allows me to derive the following proposition:

<u>**Proposition 1**</u>: the larger the value that government agents place on the political support of labor, the lower the tax schedule offered to foreign investors, all else equal.

From  $dt/d\beta$ , recently discussed, and  $dK^F/dt$ , which we know from (5), we may derive the following proposition:

**<u>Proposition 2</u>**: the larger the value that government agents place on the political support of labor the higher the level of foreign investment, all else equal.

Under this scenario, a potential loss of support from pivotal domestic actors may help solve the time consistency problem. Government must now tradeoff the additional tax revenue levied when acting opportunistically with loss of political support from domestic actors resulting from the expected effect of taxes on inflows of capital. Governments will discriminate in favor of foreign capital and tax domestic capital more heavily.

#### **Intuition and Discussion**

In the models discussed above the host government is assumed to maximize the utility it gets from revenue obtained by taxing capital. When the host government is relatively autonomous it only cares about maximizing revenue, and would prefer to set a higher tax. Revenue is in turn affected by the decision of foreign investors who compare the net return in the host country to the opportunities they face abroad. As taxes rise, FDI drops. When the host government is partisan it will internalize the utility of labor or capital. Hence the policy adopted will be more restrictive when domestic capital is part of the ruling coalition, and more liberal when the coalition is built around labor. Figure 11, presents a simplified representation of the solutions to the maximization problem that government faces: a pro-labor government (when  $\beta = 1$ ) will offer the lowest tax to foreign investors, i.e.: the policy most favorable to foreign investors. A probusiness government (when  $\beta = 0$ ) will offer the most restrictive conditions, because as much as the host government values revenue it would like to please domestic capital by keeping investors out. The theory predicts that conditions would be more favorable towards foreign investors as governments take a pro-labor stance. As discussed earlier, the downward sloping curve in Figure 12 shows a fall in the optimal tax as governments internalize the material interests of workers (as  $\beta$  approaches 1). The upshot is that FDI will increase as governments take a pro-labor position, which is reflected in the upward sloping curve in Figure 12.

The model introduced in this section is based on very simple assumptions about the production function, technology and governments/investors interaction.<sup>29</sup> It also relies on very simple assumptions about actors' preferences. All these simplifications combined result in a rather rudimentary objective function. However, the model allows us to make predictions about

<sup>&</sup>lt;sup>29</sup> Of these assumptions the constant returns to scale production function is perhaps the most problematic when dealing with multinational activities, especially under the Horstmann & Markusen (1992), and Brainard (1993c) models where the decision to invest abroad is driven by the proximity/economies of scale trade-off.

the expected sign of the investment regime that host governments would offer to foreign investors, and ultimately the level of investment in the host country.

The main assumption is that the concern about distributive consequences of factor inflows makes labor interests converge with those of foreign investors, while those of domestic businesses would diverge. Yet is also possible that preferences of labor and foreign capital do not fully converge. This divergence of interests between domestic labor and foreign capital has been captured in an extension of the model discussed in Appendix 1. There, labor preferences are mapped onto a two-dimensional space: one dimension results from the value placed on income from participation in the market, and follows straight from the trade theoretic literature: changes in relative endowment competing wages up. The other dimension is related to the value labor places on government spending, which acts as a form of social insurance against the potential hardship associated with downturns in economic activity that is beyond the control of labor.<sup>30</sup> Social insurance implies higher taxation, which affects the return to investors. Foreign capital compares the return at Home, net of taxes and subsidies, with the potential return in the host country. Return in the host country is affected by the level of social spending, which implies higher taxes. Increasing labor (capital) influence has a negative (positive) effect on the return on investment in the Host country through increasing (decreasing) welfare taxes and transfers, all else equal. Yet increasing labor (capital) influence has a positive (negative) effect on the return to investment in the Host country through reducing uncertainty about the policy environment.<sup>31</sup>

That model suggests that even when labor values higher taxes or government spending, the level of taxes offered to foreign investors will be lower than when capital owners are more

<sup>&</sup>lt;sup>30</sup> See Cameron (1978) and Rodrik (1997), among others.

<sup>&</sup>lt;sup>31</sup> It could even have a positive (negative) effect on changing the policy environment in the direction preferred (disliked) by the investor other types of shocks, if the domestic actor whose interests are congruent to those of the foreign investor internalizes these preferences.

influential on government, event though the latter, by assumption, do not place any value on the extra revenue obtained from taxing foreign capital. The following section discusses the empirical strategy to test the predictions of proposition 1.

### **IV. Empirics**

The model introduced in the previous section predicts that partisanship will determine how governments regulate direct investment. Testing these predictions across countries and over time is not easy because we lack a good comparable measure of FDI policy that would include restrictions and benefits that have the potential to raise or lower the cost of foreign investment. Investment policy regimes are the combination of policies aimed at regulating foreign investment. The orientation of these policy regimes can range from friendly to hostile to foreign investment.<sup>32</sup> Constructing an aggregate measure of investment policy orientation is difficult because multiple policy instruments and political conditions have the potential to affect the form of entry or the returns to foreign capital; among those instruments we find: protection of property rights, including intellectual policy; rules regulating technology transfers; fiscal policy, subsidies, corporate and other tax rates, tax exemptions and other provisions of the tax system; sector specific regulatory regimes; corporate governance regimes; rules regulating market structure, or lack thereof; tariffs, non-tariff barriers, and trade policy regime in general; local content and origin requirements; degree of openness of the capital account; exchange rate policy and monetary regimes; FDI specific rules such as national treatment, ownership, notification procedures, and management and operational restrictions. To date we have no way to assess the incidence of these various types of policies in any general way.<sup>33</sup> Moreover, since many of these

 <sup>&</sup>lt;sup>32</sup> Including what Golub terms as hidden 'institutional and behavioral restrictions on FDI' such as business organization, the Japanese keiretsu for instance, and business-government collusion practices (Golub, 2003, pp. 95).
 <sup>33</sup> Of all these instruments that together will determine the investment policy orientation of a country, Golub's measure of investment restrictions only covers the latter, ie: FDI specific restrictions (Golub 2003).

policy instruments have substitutive effects, it is difficult to capture their effects in most of the measures available for cross-national comparison. In this section I discuss a procedure aimed at trying to fill this void: I create a measure of investment policy orientation that allows for comparison of the aggregate effects of foreign investment regimes across countries and over time.<sup>34</sup>

#### Estimating a measure of investment restrictions: Methodology

Developing a measure of investment policy orientation presents a similar challenge to that faced by researchers trying to measure trade openness and commercial policy orientation: whether to look at policies or to concentrate on outcomes. In the trade case, for instance, we have tariff and tariff revenue data and measures of non-tariff barriers coverage, but we know that tariff and NTB data are but an incomplete measures of commercial policy. In the case of investment policy, rating agencies adopt a qualitative approach: they rely on surveys of experts that assign governments a position on an ordinal scale of risk. Such subjective measures of policy orientation suffer from several drawbacks, especially those associated with the reliability of the coders and the consistency of the criteria across countries and years.

Using data on bilateral investment flows compiled by the Organization for Economic Cooperation and Development (OECD), I develop an index of openness to FDI derived from objective measures of investment activity for a limited number of countries. The estimated measure of investment policy orientation captures at once the vast array of policy instruments that may affect foreign investors' decisions. <sup>35</sup>

<sup>&</sup>lt;sup>34</sup> The project is linked to initiatives aimed at the construction of trade policy orientation indices. See, Hiscox & Kastner (2002).

<sup>&</sup>lt;sup>35</sup> The following paragraphs discuss the econometric model from which the measure is derived. The data used in deriving this measure includes inflows and outflows to and from 27 OECD countries for 1980-2000; the source of the data on inflows is SourceOECD: International direct investment by country (electronic resource: accessed on September 5, 2005). See also Pinto (2004). A similar model also helps us identifying abnormal or distorted patterns

A basic form of the gravity model has proven to be an extremely effective framework for gauging what patterns of trade are normal or natural among nations.<sup>36</sup> The gravity specification has also been used to analyze the effect of policy on investment flows.<sup>37</sup> The basic form of the gravity model can be expressed as:

$$FDI_{ij} = f(Endowments_{(i,j)}, Links_{(i,j)}, Distance_{(i,j)})$$
(4.1)

Where the subscripts *i* and *j* represent the recipient/host country, and the sender/home country respectively. Variation over time is reflected by the subscript *t*. The measure of investment policy restrictions is obtained in two stages. In the first stage I estimate the model in log-linear form, using different proxies for endowments and other conditions that affect outflows from the home country, including links with the host country, as :

$$Ln FDI_{ijt}/Y_{it} = \alpha_{it} + \beta_1 Ln distance_{ij} + \beta_2 Ln real GDP_{jt} + \beta_3 Ln Arable land_{jt} + \beta_2 Ln real GDP_{jt} + \beta_3 Ln Arable land_{jt} + \beta_3 Ln Arable land_{$$

 $\beta_4$  Ln GDP per capita<sub>it</sub> +  $\beta_5$  Ln Average School years<sub>it</sub> +  $\beta_6$  Common language<sub>ii</sub> +

$$\beta_5 \text{ Colonial links}_{ij} + \beta_6 \text{ Border}_{ij} + \varepsilon_{ijt}$$

$$(4.2)$$

In the second stage I regress the country-year fixed effect  $\alpha_{it}$  on regressors that capture country i's relative endowment of capital, labor, skill and size, which according to the literature are likely to have an important effect on the level of inflows.<sup>38</sup>

 $\alpha_{it} = \gamma_0 + \gamma_1 Ln real GDP_{it} - \gamma_2 Ln arable land_{it} + \gamma_3 Ln GDP per capita_{it} + \gamma_3 Ln G$ 

 $\gamma_4$  Ln average school years<sub>it</sub> +  $\theta_{it}$ 

<sup>36</sup> The model posits that the volume of trade between two nations is an increasing function of the income of those nations and a decreasing function of the distance between them. See, Frankel and Wei (1993) Aitken (1973), Frankel, Stein et al. (1995), and Baier and Bergstrand (2001), Anderson & Van Wincoop (2004), among others.

<sup>(4.3)</sup> 

of investment and estimating the extent to which these are due to the trade policies of particular nations. Hiscox & Kastner (2002) have derived a measure of trade policy restrictions in similar fashion.

<sup>&</sup>lt;sup>37</sup> Other variables, including whether the countries share a common border, a common language or legal system, are often added to the model, unpacking the residual or "resistance term" as is known in the technical jargon of this literature. See, inter alia, Blonigen & Davies (2000).

<sup>&</sup>lt;sup>38</sup> Carr et al. (2001) and Markusen and Maskus (1999a, 1999b, 2001b, 2001a) construct an "unrestricted" empirical model of FDI activity that nests a number of alternative theories of MNE activity: horizontal, vertical and knowledge-capital model (which integrates the previous two). Schooling years in the host country is included on the right-hand side of the estimating equation to proxy for the skill/knowledge effects.

The index of investment policy orientation is constructed from the residuals,  $\theta_{it}$ , obtained from estimating the second stage equation (4.3). This measure compares the individual country/year deviation from the sample average measure of openness to investment. A larger (lower) value means that a country is more (less) open to FDI, once we have controlled for economic, geographical and cultural determinants of investment flows. The measure thus obtained is used as the dependent variable in the tests on the effects of partisanship on the regulation of foreign direct investment.<sup>39</sup> Due to data availability and time constraints, I estimate the index for 27 countries in five-year intervals, which are reported in Table 3 and Tables 13 (a-d). Figures 7 through 9 present scatterplots of this measure of investment policy orientation and Golub's summary measure of FDI-specific restrictions, which is available for the years 1980, 1990 and 2000. The negative pattern observed in the scatterplots, particularly in the last two periods, is consistent with the way both measures were constructed: higher values in Golub's index are associated with more restrictions to FDI, whereas the investment policy orientation index takes higher values when investment regimes are open.<sup>40</sup>

#### **Empirical Strategy**

I argued that regulation of foreign investors is a function of the preferences of owners of factors of production in the host country, their relative power -their potential to influence on the policymaking process- and the receptiveness of the incumbent party to the demands from labor or capital owners. The model assumed that foreign investment, and capital in general, was a complement of domestic labor. Based on this assumption the model predicts that owners of labor

<sup>&</sup>lt;sup>39</sup> Note that the variable used to capture endowment of human capital, which is a key component of the knowledgebased model of MNCs (See Carr et al. 2001), was only available in 5-year intervals for the years 1980-2000. I am currently collecting yearly data on education that would allow extending the index to all years from 1980 through 2003 (last year for which OECD has data on bilateral flows). I have also estimated the index on one-year intervals excluding education (See Appendix 2).

<sup>&</sup>lt;sup>40</sup> The correlation coefficients of the two measures are: -0.0443, -0.1861, -0.3596 for the years 1980, 1990 and 2000 respectively.

would support policies that encourage direct investment inflows, while owners of capital would support more restrictive policies. It is conceivable that labor would prefer a bigger government, resulting in an overall higher level of taxes on capital, which would make investors more likely to shun these countries. Yet an extension of the model discussed in Appendix 1 suggest that even when owners of labor prefer higher levels of government spending financed by a tax on capital if possible  $-\delta$  in the model– they would prefer to regulate foreign capital inflows more lightly to lure investors in, while domestic business interests would prefer policy regimes that keep investors out. In the tests we need to find a measure of the  $\beta$  parameter in the model, linking the preferences of labor and capital to policy-makers, for which I turn to government partisanship.

The assumption that governments have partisan (and electoral) incentives in regulating economic activity is pervasive in the literature that explores the links between politics and macro-economic management: Hibbs (1977, 1992), Tufte (1978) are the precursors in this tradition.<sup>41</sup> Political parties build and nurture ties to groups of voters, whether organized or not, and when in government tend to deliver policies valued by those groups for material (or ideological) reasons.<sup>42</sup> For simplicity I assume that partisanship is of two types: pro-labor and pro-capital, which can be identified with the left and right respectively. Left-leaning governments will enact policies that favor owners of labor, and right-leaning government will

<sup>&</sup>lt;sup>41</sup> More recent models of partisan and electoral business cycles are: Alesina (1987, 1988), Alvarez, Garrett & Lange (1991), Alesina & Rosenthal (1995), Boix (1997, 1998), Garrett (1998), Iversen (1999), and Franzese (2002), among others. The existence of a partisan business cycle has received more support than its electoral counterpart. See Franzese (2003) for an excellent review of this literature. In recent literature on politics and trade, Dutt & Mitra (2005) and Milner & Judkins (2004) show that ideology and partisanship (whether left- or right-leaning) are good predictors of countries' (and parties') trade policy orientation. Right-leaning governments (and parties) are associated with open trade policies in developed (capital abundant) countries, while left-leaning governments are more protectionist (Dutt & Mitra 2005, Milner & Judkins 2004). The outcomes are reversed for capital scarce countries, which is consistent with the predictions derived from the Hecksher-Ohlin model of trade (See Stolper & Samuelson, 1941).

<sup>&</sup>lt;sup>42</sup> When politically responsive to any of the two domestic actors in the host country –when government cares more about labor or capital, or is held accountable to any of these groups– it will internalize the utility of that actor.

adopt policies that favor capital.<sup>43</sup> If these predictions are right we should find that investment regimes will covary with government partisanship. Thus, the main testable hypothesis derived from proposition 1 in Section III is:

<u>*Partisan Hypothesis:*</u> when the party of the left (right) is in government, investment regimes will be more open (restrictive), all else equal.

Accordingly, we would expect governments to adopt investment regimes that are more favorable towards foreign investors when the pro-labor party is in power. On the contrary, right-leaning governments, which are more likely to cater to domestic owners of capital, will adopt policies aimed at keeping investors out. An alternative hypothesis is derived from the institutional constraints literature:

# <u>Veto-Gates hypothesis</u>: as the number of institutional constraints increase, investment regimes will show a status quo bias.

Even if elected to government, the pro-labor party will not be able to adopt the policies preferred by its core constituent. The larger the number of veto-players required to overturn the status quo, the harder it would be enact those policies, particularly when the preferences of those in position to veto policy changes are not congruent with those of the chief executive. The interactive effect of preferences and institutions –or motive and opportunity to use Tufte's terms-is key (Tufte 1978).

# Analysis

<sup>&</sup>lt;sup>43</sup> Equating pro-labor with the left, and pro-business with the political right demands some explanation. There is good reason to believe that left-leaning parties will be more receptive to labor's demands, while right-leaning parties will favor owners of domestic capital. Governments on the left side of the political spectrum tend to cater to labor for political support, and place more emphasis on issues such as unemployment and income distribution. Right-leaning parties tend to be more business-oriented, assign high priority to price and stability, and usually clash with labor on issues such as income distribution (See footnote 41). Parties of the left and right alike may be at odds with the interests of foreign investors for ideological reasons, which we bracket from this analysis since we have no reason to believe that these ideological reasons, usually associated with nationalism, are more likely to prevail at either side of the political spectrum. Hence, we focus on the material interests of labor and capital alone, and analyze how inflows of FDI are likely to affect their returns.

The plausibility of the argument is assessed with a series of statistical analyses discussed below. The objective is to determine whether governments classified as left-leaning are associated with friendlier investment regimes relative to governments of other ideologies, in particular those classified as right or center.

Appendix 2 describes the explanatory variables used and sources of data. An important challenge to the empirical strategy is data availability for the construction of the dependent variable, which could only be obtained for a limited set of countries and years.<sup>44</sup> The ideal design would require a more disaggregated measure of labor influence and of FDI policy at the sectoral level, since we have good reason to believe that whether FDI is a complement or substitute of capital and/or labor will vary across industries.<sup>45</sup>

To assess the empirical validity of this argument, I begin by testing the following model:

| FDI Policy Orientation <sub>it</sub> = $\alpha_0 + \alpha_1 \operatorname{Left}_{it} + \beta' X_{it} + \varepsilon_{it}$ , | (4.1) |
|--|-------|
|  |       |

where the subscripts *i* and *t* respectively denote country, and time. FDI Policy Orientation is the measure obtained from the two-stage process discussed in the previous sections. A higher value of the dependent variable indicates a friendlier regime towards foreign investment. Left is a dummy variable that indicates whether a left wing party is in government in country *i* at time *t*, and X are other control variables. A value of  $\alpha_1$  significantly different from zero would suggest that investment regime will be more favorable to FDI in years under left government, compared to governments of different ideology.

Changes in the orientation of the chief executive alone, however, may not be enough to effect changes in policy. Depending on the institutional design, the acquiescence of other

<sup>&</sup>lt;sup>44</sup> Investment policy orientation, the dependent variable used in the tests, was introduced earlier. Alternatively I use Golub's index of FDI restrictions as a dependent variable in the statistical tests.

<sup>&</sup>lt;sup>45</sup> The unit of analysis should be industry/year, in the tradition of the endogenous tariff literature, and industries/sectors within countries should be chosen randomly. Obtaining this data for a large number of countries is costly and time consuming and will be conducted at a later stage.

political actors might be needed. We would expect a status quo bias in countries where governments are more constrained institutionally, ie: where the number of institutional veto-gates players is larger (divided government in Presidential systems, for instance), and/or are politically constrained (minority or multiparty coalitions in Parliamentary settings).<sup>46</sup> Changing policies towards those preferred by the core constituent of the party in government would be easier when governments are less constrained, or when those constraints are less binding. Hence, we would expect that the coefficient on Left will be positive when Political constraints are low, ie: when the executive is able to enact the policies that benefit FDI, but not when Political constraints are high.<sup>47</sup>

| FDI Policy Orientation <sub>it</sub> = $\alpha_0 + \alpha_1$ Left <sub>it</sub> + $\alpha_2$ Polcon <sub>it</sub> + $\alpha_3$ Left <sub>it</sub> x Polcon <sub>it</sub> + $\beta'$ X <sub>it</sub> + $\varepsilon_{it}$ , | (4.2) |
|--|-------|
| -j   |       |

Table 4 reports our estimates from regressing the index of investment policy orientation on political orientation of the chief executive and the existence of institutional constraints and the interaction of these two variables, as described in equation (4.2).<sup>48</sup> Models 1 and 2 return a negative coefficient on the Left dummy variable, which is not significantly different from zero, suggesting that governments coded as left-leaning are associated with investment policies that are neither more nor less open than the regimes adopted by their counterparts of the center or the right.<sup>49</sup> Model 3 provides partial support to the conditional partisan hypothesis discussed earlier: introducing an interactive term between the left dummy and the index of political constraints

is. <sup>47</sup> The measure of political constraints (POLCONIII) was obtained from Henisz (2002). Relying on a simple spatial model of political interaction Henisz derives a measure of how constrained the chief executive is in her choice of policies.<sup>47</sup> It is a measure of the likelihood of change in policy given the structure of political institutions (the number of veto points) and the preferences of the actors that hold each of these points (the partisan alignment of various veto points and the heterogeneity or homogeneity of the preferences within each branch). Possible scores for the final measure of political constraints range from zero (most hazardous) to one (most constrained). <sup>48</sup> Results reported come from linear regression models, pooling observations from different units.

<sup>&</sup>lt;sup>46</sup> Henisz (2002) has constructed an index that captures how institutionally and politically constrained the executive is.

<sup>&</sup>lt;sup>49</sup> To control of temporal dependence I include a lagged dependent variable on the right-hand side of the estimating equation. The lagged DV is positive and highly significant. The findings are robust to alternative modeling strategies.

returns a positive and statistically significant coefficient on the left variable, a positive coefficient on the political constraints variable (capturing the effect of constraints when the left dummy takes a value of zero), while the interactive effect is negative and highly statistically significant. I use Clarify to simulate the expected values of the effect of increasing political constraints when the incumbent is the party of the left compared to the case where the incumbent party is center or right-leaning.<sup>50</sup> Figures 1 through 3 show these effects graphically. Figure 1 present the point prediction and the 95% confidence interval around those estimates for the left party; Figure 2 shows similar predictions when the left dummy takes a value of zero. Figure 3, on the other hand, compares the effect of partisanship and constraints when the government is of the left and when it's not. When political constraints are low, ie: when the incumbent if able to alter the status quo, investment policies become more open. The confidence interval when the left dummy takes a value of 1 does not overlap with the confidence interval when it takes a value of zero when polcon is low. As constraints increase, the left becomes associated with more restrictive investment policies, while governments led by parties of the center or right end of the political spectrum are associated with more open policies. The finding that when unconstrained governments will be more likely to adopt the policies predicted by the model suggest that once we control for the institutional characteristics of the polity, the partisan hypothesis is plausible. That a constrained government of the left will be more restrictive than its right or center counterpart facing similar constraints is not surprising. Note that in both instances, when the left is in power and when it is not, the policies tend to converge when political constraints are high, suggesting that policies are locked-in, which would be the prediction in the veto-gates literature.

<sup>&</sup>lt;sup>50</sup> Because the parameters in the model are estimated with uncertainty, Clarify generates a thousand simulations of the parameters, allowing to estimate quantities of interest, such as change in expected values associated with changes in the explanatory variables (Tomz, Wittemberg & King, 2003; King, Tomz & Wittemberg 2003).

Model 5 provides partial support to this interpretation.<sup>51</sup> 'Move Left' is a variable that takes a value of 1 when the chief executive moves to the left. The coefficient on this variable is positive and significant, while the interaction of the "move left" dummy with the political constraints variable is negative and significant.<sup>52</sup>

To control for the market versus government tradeoff faced by owners of labor in the model discussed in the Appendix (between the cash transfer g or the return z) Model 4 includes government consumption as a regressor. The effect of this variable on investment policy orientation is negative but not statistically significant. However, note that controlling for government consumption affects the coefficient and significance of the other regressors in the model, though the substantive effect remains.

Table 5 reproduces the tests in Table 4 using as a dependent variable a measure of investment restrictions developed by Golub (2003). As discussed earlier, this index measures FDI specific restrictions adopted by governments such as limitations on foreign ownership, notification procedures, operational restrictions, etc.. Note that a higher value of this variable represents higher restrictions on FDI. The results are remarkably similar to those obtained using the investment policy orientation measure as a DV, providing strong support to the modified partisan hypothesis. Figures 4-6 reproduce graphically the simulations obtained from the estimates in Model 8. In figure 6, note that the difference in the point predictions when political constraints are low, where left-leaning governments are associated with less restrictions on FDI. That the confidence intervals do not overlap in this region underscores the stark difference between governments of the left and those in the center or right of the political spectrum. Also

<sup>&</sup>lt;sup>51</sup> Model 5 uses an alternative measure of the Investment Policy Orientation Index, obtained on yearly basis for the period 1980-2000. This estimate does not control for education (which is available in five-year intervals) in any of the two stages. The correlation coefficient between both measures is 0.9846, and significant beyond conventional levels (p>t: 0.0000).

<sup>&</sup>lt;sup>52</sup> The relationship is robust to model specification.

note that at high levels of political constraints it is difficult to detect a significantly different behavior between the parties of different ideology, in strong support of the vet-gates/institutional constraints hypotheses. Models 9 and 10 introduce alternative controls, such as the existence of strong and centralized business organizations, which are associated with more restrictive FDI specific restrictions in Model 8, and government consumption in Model 9, with results similar to those obtained with Model 4.

In terms of the conceptual framework, the previous results can be interpreted as follows: when the pro-labor party is in power, it is more likely to adopt policies preferred by labor. It would regulate foreign investment more favorably because inflows of capital, which are assumed to complement labor in production, are likely to increase the return to labor. The ability of the pro-labor party to advance labor's preferred agenda is institutionally and politically constrained. As constraints increase the pro-labor government will not be able to advance labor's preferred agenda. In fact, there is reason to believe that when those constraints are high, they tend lock in policies different from those championed by the incumbent. Hence, a status quo bias resulting from the presence of high political constraints may explain why we frequently see pro-foreign investment policies when the incumbent party is of the right.

#### V. Conclusion

I argued that government activity is likely to affect the regulatory environment to foreign investment and the activity of multinational corporations. In the end, the nature of the regulatory regime towards FDI can be derived from the incumbent party's alignment with labor or capital. Foreign investors react to the changes in the regulatory environment (and its consistency over time) by deciding to flow into a host country (and a specific sector in that country) if the prolabor party is in power. Investment regimes will be friendlier to foreign investors when the

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owner of the factor of production that is a complement of FDI is politically influential and has the ability to change policy, ie: the preferences of these actors are likely to be internalized by those in position to change policy. When the pro-business party is in government, investment regimes and conditions are likely to be more stringent and less favorable to foreign investors. The regulatory environment is broadly defined to include all conditions that affect the return to their investment. These multiple instruments and regulations either affect the cost of doing business or the price that firms can charge for their goods and services, and are hence reflected in the firms' bottom line. In the empirical section of the paper I introduced an original measure of investment policy orientation derived from a gravity model of bilateral investment. These tests provides partial support to a modified version of the partisan hypothesis: when unconstrained the left adopts policies that are more favorable to foreign investors (or less restrictive when using Golub's measure); political constraints play a major role when interacted with partisanship, but apparently no independent role.

Throughout the paper I adopted a number of simplifying assumptions. The modeling strategy, for instance, assumed that the government only had one policy instrument: a tax on mobile capital. That tax, which can take positive or negative values, captures the net aggregate effects of different policy instruments. Another simplifying assumption is that foreign capital is a complement of labor, and substitutes for capital. This assumption allows me to line labor and capital on opposing sides of the issue. While there is good reason to believe that under fairly broad conditions foreign capital is likely to be a complement of labor, particularly when it flows to the sectors characterized by low capital to labor ratios.<sup>53</sup>

<sup>&</sup>lt;sup>53</sup> I conduct, but do not report, additional tests on restrictions at the sectoral level from Golub (2003), which is available for a set of 28 OECD countries for the year 2000. In a cross-section setting, the left is associated with lower restrictions across the board, but especially in manufacturing, which seems to confirm the findings in Pinto & Pinto (2005). In that paper we find support for the argument that pro-labor governments promote the inflow of FDI

All the simplifying assumptions in the theoretical section and empirical compromises in the empirical section come with a cost. Under certain circumstances foreign investment has the potential to benefit capital and hurt labor; identifying the left with pro-labor stances could also be problematic; the Peronist party in Argentina is a good example. In many other circumstances the left has been associated with nationalist stances, and likely to clash with foreign businesses, such as Chavez in Venezuela or Kirchner in Argentina in recent years, or Allende in Chile. Despite the low signal to noise ratio, having found a strong correlation between the left and friendlier investment regimes, albeit under special conditions, is worth noticing. For these reasons it should be noted that the tests performed do not truly establish causality. They should be interpreted as observational studies that simply suggest the plausibility of the argument.

into more labor-intensive sectors to benefit labor, and owners of foreign capital deciding to invest in those sectors. They argue that the likelihood of a policy reversal is reduced as left-leaning governments internalize the positive impact of FDI inflows on the return/welfare of labor, their core constituent.

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# Appendix 1: Partisan Government, Taxes And Investment

The model discussed in the paper can be trivially modified to incorporate alternative conditions, usually associated with partian variation in the assessment of higher taxes, as a proxy for government intervention in the economy. For example, domestic actors may accrue benefits (losses) not only from the effect of the inflow of capital on their returns, but from revenue as well: they may receive a share of g.<sup>54</sup>

The model described above assumed that labor and capital valued the income they obtained from participation in the market. But labor is also likely to prefer to receive a form of social insurance, resulting in higher taxes, all else equal. Higher (lower) taxes lead to lower (higher) foreign (and overall) investment, which reduces (increases) labor's income from the market. I extend the model to account for labor's preference in this dimension. Labor now faces a tradeoff between the utility of income obtained from participation in the market, with the utility obtained from goods produced with the extra taxes collected.

Government raises taxes but can only keep to himself proportion  $\delta$  of the revenue obtained, where  $\delta \in [0,1]$ , and uses the rest to provide a good g.<sup>55</sup> Assume, also, that only labor values a higher level of government expenditure (g) while capital is indifferent, where: g = (1- $\delta$ ) t K<sup>F</sup>.

The utility functions of labor (L) and domestic capital (K) are, respectively:  $U^{L} = U^{L} (x, g)$ 

$$U^{K} = U^{K}(z)$$

Government has the following utility function:

 $U^{G} = \tau (K) + \beta U^{L} + (1-\beta) U^{K}$   $U^{G} = \delta tK^{F} + \beta U^{L}(x,g) + (1-\beta) U^{K}(z)$   $U^{G} = \delta tK^{F}(t) + \beta U^{L}f(K(t)) - f_{k}(K(t))K(t), (1-\delta)tK^{F}(t) + (1-\beta) U^{K}(f_{k}(K)K^{D})$ (A.1)
Government's maximization problem becomes:

$$\max_{t} \delta t K^{F}(t) + \beta U[f(K(t)) - f_{k}(K(t))K(t), (1-\delta)tK^{F}(t)] + (1-\beta)f_{k}(K(t))\overline{K}$$

The first order condition (FOC)<sup>56</sup> to this maximization problem is: FOC:

$$t:\delta K^{F} + \delta t \frac{dK^{F}}{dt} + \beta U_{x} \left[ f_{k} \frac{dK^{F}}{dt} - f_{kk} \frac{dK^{F}}{dt} K - f_{k} \frac{dK^{F}}{dt} \right] + \beta U_{g} \left[ (1-\delta)K^{F} + (1-\delta)t \frac{dK^{F}}{dt} \right] + (1-\beta)f_{kk} \frac{dK^{F}}{dt} \overline{K} = 0 \Rightarrow$$
$$\Rightarrow \delta \left[ K^{F} + t \frac{dK^{F}}{dt} \right] + \beta U_{x} \left[ -f_{kk} \frac{dK^{F}}{dt} K \right] + \beta U_{g} (1-\delta) \left[ K^{F} + t \frac{dK^{F}}{dt} \right] + (1-\beta)f_{kk} \frac{dK^{F}}{dt} \overline{K} = 0$$

The solution is an implicit function of  $\beta$ ,  $\delta$ , and the other relevant parameters:

<sup>&</sup>lt;sup>54</sup> An alternative would be to change weights on the objective function, making revenue more valuable to government than the indirect utility of the government's constituents. <sup>55</sup> 1-δ captures the weight placed on g by different types of government. A decrease in δ would reflect the fact that

<sup>&</sup>lt;sup>55</sup> 1-  $\delta$  captures the weight placed on g by different types of government. A decrease in  $\delta$  would reflect the fact that an extra \$ in revenue is valued more heavily by a left government. When  $\delta = 1$  we are back in the model discussed in the previous section.

<sup>&</sup>lt;sup>56</sup> In order to save space the second order condition ( $\tau'' < 0$ ) is omitted here.

$$t^{*} = \frac{-\beta U_{x} \left(-f_{kk} \frac{dK^{F}}{dt} K\right) - (1-\beta)f_{kk} \frac{dK^{F}}{dt} \overline{K}}{\left(\delta + \beta U_{g}(1-\delta)\right) \frac{dK^{F}}{dt}} - \frac{K^{F}}{\frac{dK^{F}}{dt}}$$
(A.2)

A comparative statics exercise helps understand the effect of changing values of  $\delta$ . Let G =  $d\tau/dt$  (from the first order condition above), so the FOC G = 0 implicitly defines the relationship between t and the exogenous variables,  $\delta$  in particular. Then, by the Implicit Function Theorem:

# $(dt/d\delta) = - [(dG/d\delta) / (dG/dt)]$

Note that  $(dG/dt) = (d^2\tau/dt^2) < 0$  if SOC is satisfied (should be satisfied at a maximum). In addition,

$$\frac{dG}{d\delta} = \left(K^{F} + t\frac{dK^{F}}{dt}\right) - \beta U_{g}\left(K^{F} + t\frac{dK^{F}}{dt}\right) = (1 - \beta U_{g})\left(K^{F} + t\frac{dK^{F}}{dt}\right)$$

If  $K^{F}$ ,  $t \ge 0$ ,  $\left(K^{F} + t\frac{dK^{F}}{dt}\right)$  should always be strictly positive, so that  $(dG/d\delta) > 0$  if  $\beta = 0$ . In this

case (dt/d $\delta$ ) > 0. If  $\beta$  = 1, the sign of (dG/d $\delta$ ) depends on sign of (1-U<sub>g</sub>) which can be greater or less than 0.<sup>57</sup>

<sup>&</sup>lt;sup>57</sup> To simplify this prediction we could even assume a different functional form for U(x, g); it could be: x = w + g if g is an in-cash transfer.

# **Appendix 2: Variables and Data Sources**

The data employed in the analysis comes from various places. I provide below a description of the variables and their corresponding sources.

# Variables used in the tests: describe statistics in Appendix 3

**Investment policy orientation index:** is an index obtained by the two-stage estimation technique discussed in section IV of the paper. A higher value on this index reflects a more open foreign investment regime. The index is available for 27 OECD countries for the period 1980-2000, in five-year intervals. Countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States

**Investment restrictions index:** is an index of FDI specific restrictions such as limitations on foreign ownership, screening or notification procedures, and management, and operational restrictions. Available for the years 1980, 1990 and 2000 for the following countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States. Source: Golub (2003).

**Ideology:** The data on political orientation are obtained from the Database of Political Institutions (DPI). The authors have created a large cross-country database of political institutions that covers 177 countries over 21 years, 1971-1995. The database lists the political orientation of the chief executive and of the majority party in the legislature as 'Left', 'Center' or 'Right'. Source: Beck et al, 2001.

**Political Constraints:** proxy for institutional constraints on policy-making (institutional and partisan veto gates). Source: Henisz (2002).

**Left:** is a dummy variable coded 1 when the party of the chief executive is listed as Left in the Database of political institutions (Beck, Clarke et al. 2000). The ideological position assigned to each country corresponds to the orientation of the chief executive for political systems classified as presidential in the database, and that of the majority or largest government party for systems classified as parliamentary.<sup>58</sup> Source: see Ideology.

**Government share:** Government Share (in %) of real GDP. Source: 6.1 (Heston, Summers et al. 2002).

**Centralized business confederations**: Centralized business confederations, coded as: 1 = central business confederation with substantial authority over members and weakly contested by competing federations; .5 = central confederation with moderate authority and/or moderately contested by competitors; 0 = fragmentation among business federations and/or central federation with little authority over members. Source: Hicks & Wenworthy (1998); Huber et al. (2004).

<sup>&</sup>lt;sup>58</sup> DPI does not code the orientation of the chief executive for Switzerland, since the Federal Council's role is mostly ceremonial, and the four most important parties are represented in it. We experimented with an alternative coding for the left dummy where we assign to Switzerland the orientation of the largest party in the Assembly.

# B) Variables used to obtain the investment policy orientation measure (gravity estimates):

**Border:** dummy variable that takes a value of 1 if countries share a common border. Source: CIA Factbook.

**Common language:** dummy variable that takes a value of 1 if countries speak the same language.

**Distance:** is the direct-line distance in kilometers between the major airports in countries *i* and *j*. Source: World Handbook of Political and Social Indicators III (Taylor and Jodice 1986).

**Foreign Direct Investment:** is the amount of net direct investment inflows in current US dollars from a home country *i* to a host country *j* in year t. The source for this variable is OECD, International Direct Investment Statistics Yearbook (online resource, accessed on: 07/06/05). Data is available for OECD countries for the period 1980-2003.

**Openness:** total trade (exports plus imports) as a percentage of GDP, in constant prices. Openness may affect investors' decision to flow into the host country to jump over trade restrictions to supply local consumers, or cater to foreign consumers using the facility in the host country as an export platform. Source: Penn World Tables 6.1 (Heston, Summers et al. 2002)

**Population:** population in the host country, to control for country size. Source: Penn World Tables 6.1 (Heston, Summers et al. 2002).

**Real GDP per capita:** gross domestic product divided by total population, proxying for relative endowment of capital.<sup>59</sup> Source: Penn World Tables 6.1 (Heston, Summers et al. 2002).

**Real GDP per worker:** gross domestic product divided by total number of workers in the economy (usually a census definition based of economically active population). Similarly to GDP per capita, this variable is used as a coarse proxy for relative endowment of capital in the host country. Source: Penn World Tables 6.1 (Heston, Summers et al. 2002).

**Schooling:** is the average number of schooling years in total population over the age of 25 and over. Source: Barro & Lee (Barro and Lee 2000).

<sup>&</sup>lt;sup>59</sup> Comparable measures of capital stock and labor endowment across countries are notoriously limited in coverage, suffer from measurement error, and hence seriously flawed (See Dutt and Mitra 2005). For practical reasons in the tests we use per capita GDP instead. Yet GDP per capita may also signal larger consumption potential in the host economy, similarity of consumption preferences or complementarities between home and host countries.

| Australia              |     |        |           |        |        |
|------------------------|-----|--------|-----------|--------|--------|
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.354  | 0.097     | 0.270  | 0.460  |
| FDI Policy Orientation | 5   | 0.620  | 0.755     | -0.306 | 1.448  |
| Left Party (DPI)       | 5   | 0.600  | 0.548     | 0.000  | 1.000  |
| Polcon III (Henisz)    | 5   | 0.492  | 0.022     | 0.455  | 0.513  |
| Restrict. Manuf.       | 1   | 0.200  |           |        |        |
| Austria                |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.377  | 0.095     | 0.268  | 0.432  |
| FDI Policy Orientation | 5   | -0.867 | 0.492     | -1.483 | -0.361 |
| Left Party (DPI)       | 5   | 1.000  | 0.000     | 1.000  | 1.000  |
| Polcon III (Henisz)    | 5   | 0.423  | 0.011     | 0.411  | 0.441  |
| Restrict. Manuf.       | 1   | 0.175  |           |        |        |
| Belgium                |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.224  | 0.115     | 0.091  | 0.291  |
| FDI Policy Orientation | 5   | 0.874  | 0.569     | -0.020 | 1.423  |
| Left Party (DPI)       | 5   | 0.000  | 0.000     | 0.000  | 0.000  |
| Polcon III (Henisz)    | 5   | 0.700  | 0.013     | 0.687  | 0.718  |
| Restrict. Manuf.       | 1   | 0.025  |           |        |        |
| Canada                 |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.405  | 0.070     | 0.352  | 0.484  |
| FDI Policy Orientation | 5   | 0.200  | 0.272     | -0.263 | 0.411  |
| Left Party (DPI)       | 5   | 0.400  | 0.548     | 0.000  | 1.000  |
| Polcon III (Henisz)    | 5   | 0.451  | 0.040     | 0.388  | 0.489  |
| Restrict. Manuf.       | 1   | 0.225  |           |        |        |
| Czech Republic         |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 1   | 0.171  |           | 0.171  | 0.171  |
| FDI Policy Orientation | 0   |        |           |        |        |
| Left Party (DPI)       | 5   | 0.600  | 0.548     | 0.000  | 1.000  |
| Polcon III (Henisz)    | 2   | 0.486  | 0.142     | 0.386  | 0.586  |
| Restrict. Manuf.       | 1   | 0.050  |           |        |        |
| Denmark                |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.165  | 0.080     | 0.087  | 0.246  |
| FDI Policy Orientation | 5   | -0.359 | 1.010     | -1.778 | 0.533  |
| Left Party (DPI)       | 5   | 0.600  | 0.548     | 0.000  | 1.000  |
| Polcon III (Henisz)    | 5   | 0.535  | 0.006     | 0.529  | 0.544  |
| Restrict. Manuf.       | 1   | 0.025  |           |        |        |

# **Appendix 3: Descriptive Statistics**

| Finland                |     |        |           |        |        |
|------------------------|-----|--------|-----------|--------|--------|
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.387  | 0.184     | 0.177  | 0.521  |
| FDI Policy Orientation | 5   | -0.806 | 0.702     | -1.959 | -0.079 |
| Left Party (DPI)       | 5   | 0.600  | 0.548     | 0.000  | 1.000  |
| Polcon III (Henisz)    | 5   | 0.539  | 0.003     | 0.534  | 0.542  |
| Restrict. Manuf.       | 1   | 0.110  |           |        |        |
| France                 |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.277  | 0.192     | 0.111  | 0.487  |
| FDI Policy Orientation | 5   | -0.311 | 0.685     | -1.164 | 0.696  |
| Left Party (DPI)       | 5   | 0.600  | 0.548     | 0.000  | 1.000  |
| Polcon III (Henisz)    | 5   | 0.379  | 0.126     | 0.225  | 0.554  |
| Restrict. Manuf.       | 1   | 0.025  |           |        |        |
| Germany                |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.146  | 0.054     | 0.084  | 0.181  |
| FDI Policy Orientation | 5   | -0.354 | 0.502     | -1.054 | 0.212  |
| Left Party (DPI)       | 5   | 0.200  | 0.447     | 0.000  | 1.000  |
| Polcon III (Henisz)    | 5   | 0.417  | 0.025     | 0.379  | 0.438  |
| Restrict. Manuf.       | 1   | 0.025  |           |        |        |
| Greece                 |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.289  | 0.142     | 0.130  | 0.404  |
| FDI Policy Orientation | 5   | 0.130  | 0.740     | -0.924 | 0.979  |
| Left Party (DPI)       | 4   | 0.750  | 0.500     | 0.000  | 1.000  |
| Polcon III (Henisz)    | 5   | 0.374  | 0.017     | 0.349  | 0.391  |
| Restrict. Manuf.       | 1   | 0.025  |           |        |        |
| Hungary                |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 1   | 0.164  | •         | 0.164  | 0.164  |
| FDI Policy Orientation | 4   | -0.664 | 1.581     | -2.785 | 1.025  |
| Left Party (DPI)       | 4   | 1.000  | 0.000     | 1.000  | 1.000  |
| Polcon III (Henisz)    | 4   | 0.228  | 0.264     | 0.000  | 0.475  |
| Restrict. Manuf.       | 1   | 0.100  |           |        |        |
| Iceland                |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.490  | 0.105     | 0.390  | 0.600  |
| FDI Policy Orientation | 4   | -0.214 | 0.119     | -0.381 | -0.111 |
| Left Party (DPI)       | 5   | 0.000  | 0.000     | 0.000  | 0.000  |
| Polcon III (Henisz)    | 5   | 0.506  | 0.029     | 0.472  | 0.551  |
| Restrict. Manuf.       | 1   | 0.325  |           |        |        |

# Appendix 3 (Cont.)

| Ireland                |     |        |           |        |        |
|------------------------|-----|--------|-----------|--------|--------|
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.223  | 0.138     | 0.074  | 0.345  |
| FDI Policy Orientation | 5   | -0.646 | 1.499     | -2.275 | 1.383  |
| Left Party (DPI)       | 5   | 0.000  | 0.000     | 0.000  | 0.000  |
| Polcon III (Henisz)    | 5   | 0.433  | 0.035     | 0.389  | 0.479  |
| Restrict. Manuf.       | 1   | 0.025  |           |        |        |
| Italy                  |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.208  | 0.096     | 0.097  | 0.264  |
| FDI Policy Orientation | 5   | -1.026 | 0.632     | -2.045 | -0.423 |
| Left Party (DPI)       | 5   | 0.200  | 0.447     | 0.000  | 1.000  |
| Polcon III (Henisz)    | 5   | 0.482  | 0.075     | 0.362  | 0.568  |
| Restrict. Manuf.       | 1   | 0.025  |           |        |        |
| Japan                  |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.239  | 0.011     | 0.230  | 0.251  |
| FDI Policy Orientation | 5   | -0.642 | 0.724     | -1.522 | 0.125  |
| Left Party (DPI)       | 5   | 0.200  | 0.447     | 0.000  | 1.000  |
| Polcon III (Henisz)    | 5   | 0.559  | 0.025     | 0.535  | 0.595  |
| Restrict. Manuf.       | 1   | 0.150  |           |        |        |
| Korea                  |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 1   | 0.260  |           | 0.260  | 0.260  |
| FDI Policy Orientation | 5   | 0.293  | 1.073     | -0.635 | 2.010  |
| Left Party (DPI)       | 5   | 0.000  | 0.000     | 0.000  | 0.000  |
| Polcon III (Henisz)    | 5   | 0.301  | 0.195     | 0.000  | 0.480  |
| Restrict. Manuf.       | 1   | 0.075  |           |        |        |
| Mexico                 |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 1   | 0.273  |           | 0.273  | 0.273  |
| FDI Policy Orientation | 5   | 1.235  | 0.933     | -0.341 | 2.012  |
| Left Party (DPI)       | 5   | 1.000  | 0.000     | 1.000  | 1.000  |
| Polcon III (Henisz)    | 5   | 0.281  | 0.099     | 0.172  | 0.390  |
| Restrict. Manuf.       | 1   | 0.025  |           |        |        |
| Netherlands            |     |        |           |        |        |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max    |
| Restrictions (Golub)   | 3   | 0.197  | 0.099     | 0.083  | 0.264  |
| FDI Policy Orientation | 5   | 0.912  | 0.426     | 0.488  | 1.623  |
| Left Party (DPI)       | 5   | 0.400  | 0.548     | 0.000  | 1.000  |
| Polcon III (Henisz)    | 5   | 0.478  | 0.103     | 0.393  | 0.598  |
| Restrict. Manuf.       | 1   | 0.025  |           |        |        |

# Appendix 3 (Cont.)

| New Zealand            |     |        |           |        |       |
|------------------------|-----|--------|-----------|--------|-------|
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max   |
| Restrictions (Golub)   | 3   | 0.274  | 0.108     | 0.189  | 0.396 |
| FDI Policy Orientation | 5   | 0.967  | 0.801     | 0.011  | 2.045 |
| Left Party (DPI)       | 5   | 0.600  | 0.548     | 0.000  | 1.000 |
| Polcon III (Henisz)    | 5   | 0.368  | 0.062     | 0.324  | 0.477 |
| Restrict. Manuf.       | 1   | 0.125  |           |        |       |
| Norway                 |     |        |           |        |       |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max   |
| Restrictions (Golub)   | 3   | 0.386  | 0.178     | 0.182  | 0.510 |
| FDI Policy Orientation | 5   | 0.145  | 0.887     | -1.286 | 1.034 |
| Left Party (DPI)       | 5   | 0.400  | 0.548     | 0.000  | 1.000 |
| Polcon III (Henisz)    | 5   | 0.487  | 0.034     | 0.445  | 0.517 |
| Restrict. Manuf.       | 1   | 0.069  |           |        |       |
| Poland                 |     |        |           |        |       |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max   |
| Restrictions (Golub)   | 1   | 0.213  |           | 0.213  | 0.213 |
| FDI Policy Orientation | 4   | -1.228 | 2.270     | -3.908 | 0.907 |
| Left Party (DPI)       | 4   | 1.000  | 0.000     | 1.000  | 1.000 |
| Polcon III (Henisz)    | 5   | 0.233  | 0.276     | 0.000  | 0.674 |
| Restrict. Manuf.       | 1   | 0.075  |           |        |       |
| Portugal               |     |        |           |        |       |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max   |
| Restrictions (Golub)   | 3   | 0.316  | 0.221     | 0.157  | 0.569 |
| FDI Policy Orientation | 5   | 0.355  | 0.508     | -0.104 | 1.173 |
| Left Party (DPI)       | 5   | 0.400  | 0.548     | 0.000  | 1.000 |
| Polcon III (Henisz)    | 5   | 0.420  | 0.031     | 0.385  | 0.470 |
| Restrict. Manuf.       | 1   | 0.075  |           |        |       |
| Spain                  |     |        |           |        |       |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max   |
| Restrictions (Golub)   | 3   | 0.244  | 0.086     | 0.165  | 0.336 |
| FDI Policy Orientation | 5   | 0.099  | 0.374     | -0.239 | 0.736 |
| Left Party (DPI)       | 5   | 0.600  | 0.548     | 0.000  | 1.000 |
| Polcon III (Henisz)    | 5   | 0.481  | 0.027     | 0.436  | 0.509 |
| Restrict. Manuf.       | 1   | 0.075  |           |        |       |
| Sweden                 |     |        |           |        |       |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max   |
| Restrictions (Golub)   | 3   | 0.301  | 0.147     | 0.140  | 0.429 |
| FDI Policy Orientation | 5   | -0.266 | 0.759     | -1.453 | 0.400 |
| Left Party (DPI)       | 5   | 0.800  | 0.447     | 0.000  | 1.000 |
| Polcon III (Henisz)    | 5   | 0.481  | 0.021     | 0.455  | 0.513 |
| Restrict. Manuf.       | 1   | 0.069  |           |        |       |

# Appendix 3 (cont.)

| Switzerland            |     |        |           |        |       |
|------------------------|-----|--------|-----------|--------|-------|
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max   |
| Restrictions (Golub)   | 3   | 0.252  | 0.071     | 0.172  | 0.306 |
| FDI Policy Orientation | 5   | 0.749  | 0.535     | 0.001  | 1.492 |
| Left Party (DPI)       | 5   | 0.400  | 0.548     | 0.000  | 1.000 |
| Polcon III (Henisz)    | 5   | 0.324  | 0.144     | 0.162  | 0.441 |
| Restrict. Manuf.       | 1   | 0.075  |           |        |       |
| Turkey                 |     |        |           |        |       |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max   |
| Restrictions (Golub)   | 3   | 0.412  | 0.086     | 0.338  | 0.507 |
| FDI Policy Orientation | 5   | -0.605 | 0.842     | -1.695 | 0.572 |
| Left Party (DPI)       | 5   | 0.200  | 0.447     | 0.000  | 1.000 |
| Polcon III (Henisz)    | 5   | 0.346  | 0.205     | 0.000  | 0.531 |
| Restrict. Manuf.       | 1   | 0.150  |           |        |       |
| United Kingdom         |     |        |           |        |       |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max   |
| Restrictions (Golub)   | 3   | 0.149  | 0.077     | 0.064  | 0.215 |
| FDI Policy Orientation | 5   | 0.450  | 0.553     | 0.007  | 1.172 |
| Left Party (DPI)       | 5   | 0.200  | 0.447     | 0.000  | 1.000 |
| Polcon III (Henisz)    | 5   | 0.359  | 0.009     | 0.349  | 0.373 |
| Restrict. Manuf.       | 1   | 0.025  |           |        |       |
| United States          |     |        |           |        |       |
| Variable               | Obs | Mean   | Std. Dev. | Min    | Max   |
| Restrictions (Golub)   | 3   | 0.170  | 0.001     | 0.169  | 0.171 |
| FDI Policy Orientation | 5   | 0.537  | 0.295     | 0.167  | 0.935 |
| Left Party (DPI)       | 5   | 0.600  | 0.548     | 0.000  | 1.000 |
| Polcon III (Henisz)    | 5   | 0.399  | 0.009     | 0.386  | 0.408 |
| Restrict. Manuf.       | 1   | 0.050  |           |        |       |

# Appendix 3 (cont.)

|                      | 1980-81 | 1990–91 | 2000-01 | 2001 | 2002 |
|----------------------|---------|---------|---------|------|------|
| Developed countries  |         |         |         |      |      |
| EU                   | 0.6     | 1.2     | 7.2     | 4.1  | 4.4  |
| France               | 0.5     | 1.0     | 3.7     | 4.0  | 3.6  |
| Germany              | 0.0     | 0.2     | 6.1     | 1.7  | 1.9  |
| Ireland              | 1.2     | 2.1     | 17.1    | 9.5  | 15.9 |
| Japan                | 0.0     | 0.0     | 0.2     | 0.1  | 0.2  |
| United Kingdom       | 1.5     | 2.2     | 6.0     | 3.8  | 1.6  |
| United States        | 0.7     | 0.6     | 2.1     | 1.2  | 0.3  |
| Developing countries |         |         |         |      |      |
| Argentina            | 0.9     | 1.3     | 4.1     | 1.2  | 0.8  |
| Brazil               | 0.9     | 0.2     | 5.0     | 4.5  | 3.7  |
| China                | 0.1     | 1.1     | 3.9     | 4.0  | 4.3  |
| Hungary              | 0.0     | 2.7     | 4.1     | 4.6  | 1.3  |
| India                | 0.0     | 0.1     | 0.6     | 0.7  | 0.7  |
| Korea                | 0.1     | 0.4     | 1.4     | 0.8  | 0.4  |
| Malaysia             | 4.4     | 7.1     | 2.4     | 0.6  | 3.4  |
| Mexico               | 1.2     | 1.6     | 3.3     | 4.0  | 2.1  |
| Poland               |         | 0.3     | 5.4     | 5.0  | 2.2  |
| Thailand             | 0.7     | 2.5     | 2.8     | 3.3  | 0.8  |
| World                | 0.6     | 0.8     | 3.6     | 2.4  | 2.0  |

Table 1 FDI/GDP (%) – Selected Developing and Developed countries

Source: UNCTAD, IMF/IFS, and World Bank (Various issues).

# Table 2: Changes in National Regulations of FDI

|      | Number of | Number of | Type of Changes |                |  |
|------|-----------|-----------|-----------------|----------------|--|
| Year | Countries | Changes   | More favorable  | Less favorable |  |
| 1991 | 35        | 82        | 80              | 2              |  |
| 1992 | 43        | 79        | 79              | -              |  |
| 1993 | 57        | 102       | 101             | 1              |  |
| 1994 | 49        | 110       | 108             | 2              |  |
| 1995 | 64        | 112       | 106             | 6              |  |
| 1996 | 65        | 114       | 98              | 16             |  |
| 1997 | 76        | 151       | 135             | 16             |  |
| 1998 | 60        | 145       | 136             | 9              |  |
| 1999 | 63        | 140       | 131             | 9              |  |
| 2000 | 69        | 150       | 147             | 3              |  |
| 2001 | 71        | 208       | 194             | 14             |  |
| 2002 | 70        | 248       | 236             | 12             |  |

Source: UNCTAD (2003)

| Gravity Estimates (1980-2003) |       |       |       |       |       |  |  |  |
|-------------------------------|-------|-------|-------|-------|-------|--|--|--|
| Country                       | 1980  | 1985  | 1990  | 1995  | 2000  |  |  |  |
| Australia                     | 1.45  | 1.31  | 0.54  | -0.31 | 0.11  |  |  |  |
| Austria                       | -1.10 | -1.48 | -0.36 | -0.36 | -1.03 |  |  |  |
| Belgium                       | 1.20  | -0.02 | 1.09  | 0.67  | 1.42  |  |  |  |
| Canada                        | 0.38  | 0.27  | 0.41  | -0.26 | 0.20  |  |  |  |
| Denmark                       | -1.04 | -1.78 | 0.07  | 0.42  | 0.53  |  |  |  |
| Finland                       | -0.81 | -1.96 | -0.70 | -0.08 | -0.49 |  |  |  |
| France                        | 0.70  | -0.59 | -0.40 | -0.10 | -1.16 |  |  |  |
| Germany                       | -0.02 | -1.05 | 0.21  | -0.63 | -0.27 |  |  |  |
| Greece                        | 0.63  | -0.19 | 0.98  | 0.15  | -0.92 |  |  |  |
| Hungary                       |       | -2.79 | -0.29 | 1.02  | -0.61 |  |  |  |
| Iceland                       |       | -0.15 | -0.38 | -0.21 | -0.11 |  |  |  |
| Ireland                       | 1.38  | -0.54 | -1.92 | -2.28 | 0.12  |  |  |  |
| Italy                         | -0.42 | -0.84 | -0.65 | -2.04 | -1.17 |  |  |  |
| Japan                         | -0.02 | -0.56 | 0.13  | -1.52 | -1.23 |  |  |  |
| Korea                         | 2.01  | 0.45  | 0.22  | -0.58 | -0.63 |  |  |  |
| Mexico                        | 1.80  | 2.01  | 1.20  | 1.50  | -0.34 |  |  |  |
| Netherlands                   | 0.75  | 0.79  | 1.62  | 0.49  | 0.91  |  |  |  |
| New Zealand                   | 2.04  | 0.44  | 1.43  | 0.91  | 0.01  |  |  |  |
| Norway                        | -0.04 | 0.56  | 1.03  | 0.46  | -1.29 |  |  |  |
| Poland                        |       | -3.91 | -2.29 | 0.91  | 0.38  |  |  |  |
| Portugal                      | 0.48  | 0.20  | 1.17  | 0.02  | -0.10 |  |  |  |
| Spain                         | 0.05  | 0.03  | 0.74  | -0.24 | -0.08 |  |  |  |
| Sweden                        | 0.33  | -1.45 | -0.52 | -0.09 | 0.40  |  |  |  |
| Switzerland                   | 1.49  | 0.75  | 0.88  | 0.00  | 0.62  |  |  |  |
| Turkey                        | 0.57  | -0.68 | -0.25 | -0.97 | -1.70 |  |  |  |
| United Kingdom                | 0.92  | 0.07  | 1.17  | 0.08  | 0.01  |  |  |  |
| United States                 | 0.94  | 0.71  | 0.46  | 0.17  | 0.41  |  |  |  |

# Table 3: Investment Policy Orientation IndexGravity Estimates (1980-2005)

| Independent       | Model   | 1   | Model   | 2   | Model   | 3   | Model   | 4   | Model   | <b>5</b> * |
|-------------------|---------|-----|---------|-----|---------|-----|---------|-----|---------|------------|
| Variables         |         |     |         |     |         |     |         |     | (PCSE)  |            |
| DV <sub>t-1</sub> | 0.515   | *** | 0.515   | *** | 0.487   | *** | 0.513   | *** | 0.789   | ***        |
|                   | (0.085) |     | (0.089) |     | (0.087) |     | (0.102) |     | (0.036) |            |
| Left              | -0.071  |     | -0.071  |     | 1.704   | *** | 1.420   | *   | 0.514   | **         |
|                   | (0.153) |     | (0.153) |     | (0.610) |     | (0.794) |     | (0.212) |            |
| Polcon iii        |         |     | 0.022   |     | 1.416   | *   | 1.467   |     | 0.155   |            |
|                   |         |     | (0.841) |     | (0.850) |     | (1.008) |     | (0.226) |            |
| Left x Polcon     |         |     |         |     | -3.999  | *** | -3.491  | **  | -1.115  | **         |
|                   |         |     |         |     | (1.373) |     | (1.733) |     | (0.451) |            |
| Government        |         |     |         |     |         |     | -0.003  |     |         |            |
| Consumption       |         |     |         |     |         |     | (0.020) |     |         |            |
| Move Left         |         |     |         |     |         |     |         |     | 1.179   | *          |
|                   |         |     |         |     |         |     |         |     | (0.653) |            |
| Move Left x       |         |     |         |     |         |     |         |     | -2.386  | *          |
| Polcon iii        |         |     |         |     |         |     |         |     | (1.415) |            |
| Constant          | -0.097  |     | -0.107  |     | -0.740  | *   | -0.701  |     | -0.111  |            |
|                   | (0.110) |     | (0.389) |     | (0.392) |     | (0.509) |     | (0.111) |            |
| Observations      | 96      |     | 96      |     | 96      |     | 72      |     | 478     |            |
| Groups            | 24      |     | 24      |     | 24      |     | 18      |     | 24      |            |
| $\mathbf{R}^2$    | 0.2922  |     | 0.2923  |     | 0.3408  |     | 0.3226  |     | 0.6752  |            |

 Table 4: Linear Regression Model Estimates of the effect of Partisanship on Investment

 Policy. Dependent Variable: Investment Policy Orientation Index

Significance levels: 1% (\*\*\*), 5% (\*\*), 10%(\*).

Robust standard errors in parenthesis (PCSE in model 5).

\* Model 5 uses a modified version of the Investment Policy Measure, available for 24 countries for 1980-2000.

| Independent          | Model 6   | Model 7   | Model 8    | Model 9    | Model 10  |
|----------------------|-----------|-----------|------------|------------|-----------|
| Variables            |           |           |            |            |           |
| Left                 | -0.051 *  | -0.055 *  | -0.314 *** | -0.293 **  | -0.297 ** |
|                      | (0.031)   | (0.032)   | (0.101)    | (0.146)    | (0.147)   |
| Polcon iii           |           | -0.102    | -0.256 *   | -0.706 *** | -0.274    |
|                      |           | (0.138)   | (0.131)    | (0.246)    | (0.211)   |
| Left x               |           |           | 0.586 **   | 0.580 *    | 0.593 *   |
| Polcon iii           |           |           | (0.231)    | (0.317)    | (0.315)   |
| Centralized          |           |           |            | 0.148 **   |           |
| <b>Business Org.</b> |           |           |            | (0.058)    |           |
| Government           |           |           |            |            | 0.003     |
| Share of GDP         |           |           |            |            | (0.003)   |
| Constant             | 0.299 *** | 0.346 *** | 0.418      | 0.588 ***  | 0.370 *** |
|                      | (0.021)   | (0.069)   | (0.065)    | (0.122)    | (0.113)   |
| Observations         | 72        | 72        | 72         | 36         | 54        |
| Units                | 27        | 27        | 27         | 18         | 18        |
| $\mathbf{R}^2$       | 0.0370    | 0.0441    | 0.0898     | .0792      | 0.0719    |

 Table 5: Linear Regression Model Estimates of the effect of Partisanship on Investment

 Restrictions. Dependent Variable: FDI Restrictions Index (Golub 2003)

Significance levels: 1% (\*\*\*), 5% (\*\*), 10%(\*). Robust standard errors in parenthesis.

















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Figure 10: Changes in FDI  $(K^F)$  with changes in t





Figure 11: Changes in the optimal tax (t) with changes in government orientation

Figure 12: Changes in FDI ( $K^F$ ) with changes in labor influence ( $\beta$ )







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Figure 14: Investment Policy Orientation Index