# Political Regimes and Foreign Intervention<sup>\*</sup>

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#### Abstract

We present a theory of endogenous political regimes that emphasizes foreign direct investment as a motive for foreign governments to either induce regime transitions or promote regime consolidations. We characterize different forms of foreign intervention and identify the conditions under which they occur. We highlight new channels through which economic factors affect political regime choices. Foreign intervention is most likely to originate from countries where the government has a substantial pro-investor bias and to be directed at destinations where FDI is highly profitable and where income inequality is high. Foreign-sponsored coups d'état are more likely to be directed at democratic governments of poor countries. In destinations where FDI is highly profitable but the domestic elite is weak, foreign intervention tends to be aimed at stabilizing dictatorships. We relate the analysis to evidence on foreign intervention from around the world.

*Keywords*: Political transitions; democracy; autocracy; foreign investments; foreign government intervention.

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## 1 Introduction

Scholarly research and common-sense discussions of world affairs often emphasize foreign intervention as a major source of political transitions. This

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emphasis is not new. For example, Theodore Roosevelt claimed in May 1904 that the U.S. had a "moral mandate" to enforce proper behavior among the nations of Latin America. Subsequent attempts to enhance "proper behavior" led various U.S. governments to intervene in favor of dictatorships, to sponsor coups d'état and to encourage democratization. In a recent paper, Easterly, Satyanath, and Berger (2008) show how CIA interventions removed democracies in a number of countries and that the effects of these interventions on the political institutions were long-lasting. Regime change operations are, of course, not exclusive to U.S. foreign policy. For example, the 1974 coup d'état in Niger would not have been possible without the support of France (Higgott and Fuglestad, 1975). Moreover, Britain was involved in deposing Mosaddeq in Iran in 1953 (Gasiorowski and Byrne, 2004) and before World War I played an important role in shaping the political landscape in the Middle East by withdrawing or extending support to local elites (Hourani, 1991). Behind all these examples of foreign intervention looms economic goals and a desire to create a more profitable and secure investment environment abroad.<sup>1</sup>

The purpose of this paper is to study the economic causes of foreign intervention and the incentives of a foreign government to trigger political regime transitions in another country. We emphasize protection of foreign direct investment (FDI) as the main motive for foreign intervention. Ideological or moral motives may, of course, also be present. In fact, political instability, corruption of the ruling elite, and communist influence have frequently been cited as reasons justifying foreign intervention. Notwithstanding these motives, economic interest is present behind most, if not all, decisions to depose or to support foreign leaders and the regimes they represent, and it is on this aspect we focus our attention.

We study a world in which FDI flows from a source country (the foreign country) to a destination country. In the destination country, production requires FDI and a domestic factor (land) owned by the local elite, as well as labor input. This makes firms partially foreign-owned and implies comple-

<sup>&</sup>lt;sup>1</sup>Kinzer (2006), for example, shows that, throughout the 20th century, the typical aim of U.S. foreign interventions was to protect U.S. foreign investments and to generate profitable business opportunities abroad.

mentarity between FDI and local production inputs. A leading example of this is an extraction industry where the local elite owns the extraction rights and foreign investors provide capital and know-how. Another example is foreign investments in agriculture. Profit as well as wage income can be taxed. Importantly, the policy preferences of the local elite and foreign investors coincide: they both want low taxes on profits. As a consequence, foreign investors prefer a political regime that puts the local elite firmly in charge of tax policy (consolidated autocracy) as that is likely to result in more lenient taxation of the profits from FDI than consolidated democracy.<sup>2</sup> Whenever autocracy is under threat, e.g., by the prospect of a successful revolution, foreign investors, accordingly, have a strong incentive to eliminate this threat and to lobby the government of the foreign country to intervene.<sup>3</sup> The incentives of the foreign country to influence regime dynamics in the destination country also depend on the political conditions in the source country. For example, the willingness to intervene may vary with the ideology of the foreign government and fluctuate with the international community's support or lack thereof to foreign regime interventions in general.

We model the political regime choice in the destination country as in Acemoglu and Robinson (2001).<sup>4</sup> The destination country is an autocracy at the outset but would, in the absence of any foreign intervention, become a consolidated democracy as time unfolds. We introduce the possibility of foreign intervention into this framework and consider three forms of intervention. First, foreign intervention can be aimed at consolidating autocracy. In this case, intervention happens before any transition to democracy, and

<sup>&</sup>lt;sup>2</sup>Acemoglu (2008) also emphasize that autocracies, *ceteris paribus*, treat foreign investment more favorably than democracies. Moreover, the notion has been conceptualized by O'Donnell as mutual indispensability (O'Donnell, 1978) and elective affinity (O'Donnell, 1973). Moreover, Oneal (1994) provides statistical support for this assumption. He finds that the return to U.S. investment abroad was greater in autocratic regimes. This caused a bias in the flow of U.S. capital investment.

<sup>&</sup>lt;sup>3</sup>Dube, Kaplan, and Naidu (2008) provides evidence in this direction.

<sup>&</sup>lt;sup>4</sup>The cornerstone of their theory of political transitions is that regime transitions happen because the governing social group cannot commit to redistribute income in a way that satisfies the demands of rebellious masses or of the local elite. As a result, different types of democracy can emerge depending on how costly it is for the elite to reinstate autocracy through a coup, or different types of autocracy may emerge depending on how costly it is for workers to instigate a revolution.

takes the form of eliminating the threat of revolution by funding counterrevolutionary activities. The dictatorships of Trujillo in the Dominican Republic, Somoza in Nicaragua, Batista in Cuba and the Duvalier dynasty in Haiti constitute clear-cut examples of autocracies that have been stabilized by foreign intervention in this way.<sup>5</sup> Second, foreign intervention can be aimed at overthrowing a newly-established democracy. In this case, it takes the form of a foreign-sponsored coup d'état that will reinstate autocratic rule temporarily. Real-world examples of this strategy in action are plentiful and include, among many others, the U.S.-backed coup d'état in Iran in 1953, in Guatemala 1954, and in Chile in 1973. Third, foreign intervention may be aimed at forcing a democratic government to offer tax concessions to foreign investors. In this case, it takes the form of support to the elite while in opposition. In that way it enhances a pre-existing threat of a coup, but without actually triggering one, and puts pro-FDI constraints on the tax policy of the ruling democratic government.

Our analysis yields a number of useful results that can illuminate the economics causes of foreign intervention and its impact on the regime dynamics of other countries. First, foreign intervention is most likely to originate from countries where the government has a substantial pro-investor bias and to be directed at destinations where FDI is highly profitable and where income inequality is high. The last result follows because income inequality is associated with a large workforce that keeps wage costs down. Second, a foreign-sponsored coup d'état is more likely to be directed at democratic governments of poor countries. This is simply because it is less costly to trigger a coup in a poor country. Third, at destinations in which FDI is highly profitable but the domestic elite is weak, foreign intervention tends to be aimed at stabilizing autocratic regimes, rather than at overthrowing newly established democracies. In such situations, foreign-supported personalist dictatorships are more likely to consolidate.

Our paper is related to recent work on the economic origins of political institutions. Two different yet complementary streams of literature may be

<sup>&</sup>lt;sup>5</sup>This strategy includes training of military forces involved in counter-revolutionary activities. The so-called School of the Americas is a good example of this (Millett, 1977).

identified. Both focus on a ruling elite's incentive to extend the political franchise. First, democratization may take place once the ruling elite realizes its economic benefits. Potential economic benefits of democracy include better property rights protection (Gradstein, 2007), greater human capital accumulation (Bourguignon and Verdier, 2000), or greater provision of public services (Lizzeri and Persico, 2004). On the other hand, democracy may be the consequence of a compromise to avoid a costly revolution. According to this view, developed by Acemoglu and Robinson (2000, 2005), democracy emerges because the ruling elite cannot commit to redistributive policies. The only way to make promises of future redistribution credible and to avoid a revolution today is to extend the voting franchise.<sup>6</sup> Transitions from democracy to autocracy can also be studied within this framework. The elite may, after a transition to democracy, have an incentive to mount a coup and reinstate autocracy because the majority of voters cannot credibly promise tax cuts for the rich (Acemoglu and Robinson, 2001). This literature on endogenous political institutions focuses almost exclusively on domestic causes of regime transitions and has in that way provided important insights into the causes of franchise extension and coups.<sup>7</sup> Yet, the literature does not provide a framework in which the role of economically-motivated foreign intervention in the rise, fall and establishment of different forms of democracies and autocracies can be analyzed. The absence of such a framework is the main motivation for this paper. There do, however, exist a small literature on a different type of foreign intervention. This literature studies the influence of foreign interests on policy outcomes directly rather than on the regime type of another country. Aidt and Hwang (2008b,a), for example, show that foreign lobbying may improve global efficiency. Antràs and Padró i Miquel (2008) investigate the welfare effects of foreign influence on the outcome of democratic elections. In these papers, cross-border externalities are emphasized and intervention is seen as a way for a foreign country to alleviate negative spillovers from

<sup>&</sup>lt;sup>6</sup>See also Conley and Temimi (2001); Justman and Gradstein (1999).

<sup>&</sup>lt;sup>7</sup>Exceptions are Acemoglu and Robinson (2005, Chapter 10), who analyze the effect of changes in relative prices triggered by international trade on political institutions, and Boix (2003), who argues that capital mobility makes democracies less redistributive and therefore less threatening to the elite. See also Meissner and López Córdova (2008).

policies implemented abroad. Our focus is very different. We are interested in types of foreign intervention that induce political regime transitions and consolidations in other countries.

The rest of the paper is organized as follows. In section 2, we set out the model. In section 3, we discuss the equilibrium regime typology of the destination country in the absence of any attempt at foreign intervention. This analysis follows Acemoglu and Robinson (2001) closely and the discussion is kept at an intuitive level.<sup>8</sup> In section 4, we introduce foreign intervention and present the main results. In section 5, we discuss the implications of foreign intervention for the volume of FDI. In section 6, we discuss some historical examples in the light of our analysis and provide concluding remarks.

# 2 The Model

We consider a world in which foreign direct investment flows from a source country to a destination country. The time horizon is infinite with t = 0, 1, 2, ... and all agents apply the discount factor  $\beta \in (0, 1)$ . The model is designed to study how political regime transitions in the destination country are affected by intervention by the government of the source country, referred to in what follows simply as the foreign government. The following subsections lay out the economic and political structures of the two countries and the timing of events.

### 2.1 The Destination Country

The destination country is populated by a continuum of individuals with measure 1. A fraction L are workers. The remaining fraction K = 1 - Lare members of the elite. Each worker is endowed with one unit of labor. This unit is inelastically supplied each period to a competitive labor market, so that the total supply of labor is L. The majority of the population are workers  $(L \ge \frac{1}{2})$ . Utility is linear in income, net of taxes. We use the

<sup>&</sup>lt;sup>8</sup>An appendix with the detailed analysis is posted online at http://www.econ.cam.ac.uk/faculty/aidt/papers/web/JDE/ONLINE\_APP\_A\_B.pdf.

subscripts W and C, respectively, to denote workers and members of the elite.

Production is organized in a continuum of firms with measure 1. Two fixed factors and one variable input are required for production to take place. One of the fixed inputs, which we will call land, is supplied by the local elite. Each member of the elite owns  $\frac{1}{K}$  units of land and supplies one unit per firm.<sup>9</sup> The other fixed input, let us call it foreign capital, is supplied by foreign investors. These foreign direct investments (FDI) are made once and for all at the beginning of period 0 by a continuum of foreign investors of measure 1. Each foreign investor invests  $\frac{1}{\alpha}$  units of capital in total and supplies  $\alpha \in [0, 1]$  units to each firm. The two fixed inputs are complements and essential: a firm cannot produce without one unit of land and  $\alpha$  units of foreign capital. For each period, the firms hire labor in the competitive labor market. Per-period output from a representative firm is produced with the following production technology:

$$y = A\left(l - \frac{1}{2}l^2\right),\tag{1}$$

where A > 0 is total factor productivity and l is employment of labor.<sup>10</sup> The production technology exhibits decreasing returns to scale. Output is sold to the world market at the fixed price of 1. The factor demand from a representative firm is determined by the condition  $\omega = A(1-l)$  where  $\omega$  is the pre-tax real wage. Equilibrium employment per firm and in total is L. We think of total profits  $\Pi$  as the combined return to the fixed and immobile stock of land and to foreign capital invested in the domestic economy. The profits are shared between the local elite and the foreign owners. The local elite's share is  $(1 - \alpha)$  and the foreign investors get the share  $\alpha$ . We assume that  $K < 1 - \alpha$ , i.e., the share of the profit going to the local elite is larger than its population share. This assumption guarantees that the elite, *ceteris* 

<sup>&</sup>lt;sup>9</sup>This assumption allows us to vary K and, thereby, capture variations in inequality without changing the scale of production (by creating or destroying firms).

<sup>&</sup>lt;sup>10</sup>The production function is a linear-quadratic approximation to a more general production function. A special case is a linear production function used in Acemoglu and Robinson (2001).

paribus, wants to tax profits (and foreign investments) more leniently than workers.<sup>11</sup> Oneal (1994) provides statistical support for this assumption. He finds that the return to U.S. foreign investments was, on average, higher in autocratic than in democratic regimes. We can interpret  $\alpha$  as an index of the economic importance of FDI: a higher  $\alpha$  means that the destination country is more attractive for foreign investors, *ceteris paribus*.

The tax structure,  $\tau = (\tau_L, \tau_\pi)$ , consists of a proportional tax on wage income  $(\tau_L)$ , and a proportional tax on profit income  $(\tau_\pi)$ . The profit income of the elite and of foreign investors cannot be taxed differentially. This is because the owners of a particular firm can benefit from shifting the tax liabilities onto the party exposed to the lowest tax and both parties will therefore effectively pay the lowest tax.<sup>12</sup> Taxation is associated with deadweight costs. Our analysis requires that the deadweight cost functions associated with  $\tau_L$  and  $\tau_{\pi}$  are convex. For simplicity, assume that it is possible up to a point (defined by  $\overline{\tau}_L < 1$  and  $\overline{\tau}_{\pi} < 1$ , respectively) to tax wages and profits without causing any deadweight costs.<sup>13</sup> After that, it becomes prohibitively expensive to do so.<sup>14</sup> What is important is that the deadweight cost functions are convex. Total tax revenues,  $T = LA(1-L)\tau_L + \Pi\tau_{\pi}$ , are redistributed lump sum to domestic citizens. We notice that the tax base for the profit tax is aggregate profits as both the local elite and all foreign investors are

<sup>&</sup>lt;sup>11</sup>Other specifications of the production technology may produce different results. For example, if foreign investments are substitutes for domestic capital owned by the elite, such investments will reduce the return to the existing capital stock and increase the return to labor. As a consequence, the elite would like to discourage foreign investment while workers would like to encourage it. Albornoz, Heymann, and Galiani (2009) show how the incentives for a democracy or an oligarchy to expropriate/tax FDI depend on their distributional effects and, therefore, on the production structure of the host economy. While we acknowledge that this is a possibility, we believe that, in most cases involving foreign intervention, it is more natural to assume that FDI complements domestic factors of production.

<sup>&</sup>lt;sup>12</sup>Suppose, for example, that the local elite pays  $\tau_{\pi}^{C}$  and the foreign investors pay  $\tau_{\pi}^{F}$  with  $\tau_{\pi}^{F} > \tau_{\pi}^{C}$ . The two types of owners would agree to transfer all income to the local owners and pay the lower tax and share the tax saving between them. Since each firm is small, the owners will not internalize the revenue implications of this and all owners have an incentive to do this.

 $<sup>^{13}</sup>$ See Acemoglu and Robinson (2000) for a similar specification of the tax structure.

<sup>&</sup>lt;sup>14</sup>A sufficient condition for our results is that the deadweight cost becomes infinite at these thresholds but alternative specifications yield similar results.

liable to pay. Per-period utility of a member of the elite is

$$v_C(\tau) = \frac{(1-\alpha)\Pi}{K} (1-\tau_{\pi}) + T,$$
 (2)

where  $\Pi = \frac{A}{2}L^2$  is profit per firm (as well as aggregate profit). Per-period utility of a representative worker is

$$v_W(\tau) = A (1 - L) (1 - \tau_L) + T.$$
(3)

The per-period utility of a representative foreign investor is

$$v_F(\tau) = \alpha \Pi (1 - \tau_\pi). \tag{4}$$

We notice that foreign investors do not share in the revenues.

The tax structure, and the implied tax treatment of foreign investors, depends on the political regime of the destination country. The *political state*  $(S_t^P)$  can be either democracy  $(\mathcal{D})$ , autocracy  $(\mathcal{A})$  or socialism  $(\mathcal{S})$ . Regime transitions happen through coups, revolutions, or democratization. The opportunities for coups and revolutions depend on many different political, technological and economic factors. To capture this, we assume, as in Acemoglu and Robinson (2000), that the costs of coups and revolutions are stochastic and depend on the *social state*  $(S_t^s \in \{G, B\})$ . When the social state is G, conditions for either a coup or a revolution are favorable and the costs are relatively low (see below). When the social state is B, a coup or a revolution is prohibitively costly. The probability that the social state is G (B) is denoted  $\psi (1 - \psi)$ .<sup>15</sup> The costs of coups and revolutions are, typically, high and we assume throughout that  $\psi < \frac{1}{2}$ .

<sup>&</sup>lt;sup>15</sup>Acemoglu and Robinson (2001) link, for concreteness, the conditions for social unrest directly to the business cycle. In fact, they assume that coups and revolutions can only take place during recessions. We prefer to focus on (exogenous) political factors. We could capture that social unrest is probably more likely during times of recession than in booms by making  $\psi$  an inverse function of economic conditions.

### 2.2 The Source Country

The source country is populated by a continuum of investors with measure 1 and are governed by a foreign government. At time t = 0, investors decide if they want to make the investment of  $\alpha$  units of foreign capital in each of the firms in the destination country or not. The alternative to foreign direct investment is to place the investment at home, which yields a constant return of  $\Pi_0$  per period. Once these investments are made, they become sunk and cannot be withdrawn.

The investors are organized in a lobby group. They can offer payments – campaign contributions or bribes – to the foreign government to induce it to influence the political regime choice of the destination country and, in that way, protect the return on their overseas investments. We assume that the foreign government values these contributions, but that it is also concerned about the cost of any foreign intervention. Let  $i \in I$  be a particular intervention plan from a set of feasible plans (to be defined below). Each intervention plan specifies what the foreign government needs to do at each point in time as a function of the state of the world  $(S_t^s \text{ and } S_t^P)$ . We denote the action required at time t by  $i_t(S_t^s, S_t^p)$  and let  $i_t(.) = NI$  for all t be the "non-intervention" plan. Given that, we can write the per-period objective function of the foreign government as

$$\Lambda_t = \gamma C(i_t(.); S_t^s, S_t^p) - \theta(i_t(.))$$
(5)

where C(.) is the payment from the lobby group to the government as a function of the action taken at time t,  $\theta(.)$  is the cost of the required intervention action with  $\theta(NI) = 0$ , and  $\gamma > 0$  is the weight that the government attaches to payments relative to the cost of intervention. We interpret this as an index of the pro-investor bias of the government but, as we stress in section 6, broader interpretations are possible.

The interaction between the lobby group and the government is modeled as a menu auction, as in Bernheim and Whinston (1986), with the proviso that we restrict attention to contribution schedules which are a function only of the action taken by the government within the period and the state of the world in that period. The government can always choose to ignore the lobby group and not intervene. This gives it a payoff of zero each period. To get the government to participate in any type of active intervention, the lobby group must, therefore, compensate it for the cost of doing so. This participation constraint implies that a contribution of  $C(i_t; S_t^s, S_t^p) \geq \frac{\theta(i_t)}{\gamma}$  must be made at time t to implement intervention  $i_t$ . The net return to the lobby group at time t is

$$\alpha \pi(i_t) - \frac{\theta(i_t)}{\gamma} \tag{6}$$

where  $\pi(i_t)$  is after tax profits. We note that profits are a function of the intervention action taken at time t. This is because the intervention affects the tax treatment of FDI by affecting the political regime of the destination country. We denote the present value of a particular intervention plan by  $W_F(i)$  and assume that the investor lobby group induces the intervention plan that maximizes its intertemporal welfare.

#### 2.3 Revolutions, Coups and Democratization

The tax treatment of foreign investors depends on the destination country's political regime. In an autocracy, the elite decides the tax structure. Ideally, it would want to tax workers as much as possible and leave profits untaxed,<sup>16</sup> i.e.,  $\tau^{\mathcal{A}} = (\overline{\tau}_L, 0)$ , but workers might attempt a revolution and force the elite as a preemptive measure to adjust the tax structure or to democratize. A successful revolution leads to nationalization of land and expropriation of all foreign investments. A worker's payoff after a revolution, therefore, is

$$v_W(\mathcal{S}) = \frac{\Pi}{L} + \omega = A\left(1 - \frac{1}{2}L\right).$$
(7)

Each member of the elite and all foreign investors get a payoff of zero after a revolution. During a revolution, however, some income,  $\mu$ , is lost, the amount of which depends on the social state. If  $S_t^s = B$ , then  $\mu_B = \infty$  and workers never attempt a revolution. If, on the other hand,  $S_t^s = G$ , then

<sup>&</sup>lt;sup>16</sup>This is implied by the assumption that  $1 - \alpha > K$ .

 $\mu_G = \mu < \infty$  and workers might be willing to pay the price of a revolution.<sup>17</sup> A successful revolution leads to socialism. We follow Acemoglu and Robinson (2000, 2001) and assume that socialism is an absorbing state. The lifetime utility of workers after a revolution is

$$V_W(\mathcal{S}) = \frac{v_W(\mathcal{S})}{1-\beta} - \mu.$$
(8)

The elite has a strong incentive to avoid a revolution because it risks losing everything. The elite can attempt to prevent a revolution by either giving tax concessions in such a way that workers prefer not to revolt or by giving them the right to vote. We assume that franchise extension is enough to prevent a revolution.<sup>18</sup> The latter option leads to a transition to democracy under which the majority of voters are workers.

In a democracy, workers decide the tax structure. Ideally, workers want zero tax on wage income and the maximum tax on profits, i.e.,  $\tau^{\mathcal{D}} = (0, \overline{\tau}_{\pi})$ , but they may have to adjust this in an attempt to prevent the elite from reinstating autocracy through a coup. A coup is costly because of the turmoil it creates. As a consequence, some of the elite's income is lost during a coup. How much is lost depends on the social state. If  $S_t^s = B$  then all income would be lost and the elite would never attempts a coup. If, on the other hand,  $S_t^s = G$ , then the loss is  $\phi < \infty$  and the elite might be willing to pay the price of a coup. In what follows, we refer to  $\phi$  and  $\mu$  as the cost of a coup and a revolution, respectively.

### 2.4 Timing of Events

At the beginning of period 0, the foreign investors decide if they want to make the investment in the destination country or not. If they do, the following sequence of events takes place within each period:

<sup>&</sup>lt;sup>17</sup>As pointed out by Acemoglu and Robinson (2000, 2001), this formulation side-steps the free rider problem associated with revolution. This is because a revolution yields private benefits to each worker and taking part in it does not involve any private costs. A similar argument applies to coups.

<sup>&</sup>lt;sup>18</sup>This requires that  $\mu$  is greater than a certain threshold (see Online Appendix A at http://www.econ.cam.ac.uk/faculty/aidt/papers/web/JDE/ONLINE\_APP\_A\_B.pdf).

- 1. The social state  $S_t^s \in \{G, B\}$  is revealed.
- 2. The foreign investors offer a payment to the foreign government and, given that, the government decides on the optimal intervention action for the period.<sup>19</sup>
- 3. If a revolution has happened in the past, then the political regime is socialism and the period ends. If  $S_t^P = \mathcal{D}$ , workers propose a tax structure. If  $S_t^P = \mathcal{A}$ , the elite proposes a tax structure.
- 4. If  $S_t^P = \mathcal{A}$ , the elite may democratize. If  $S_t^P = \mathcal{D}$ , the elite may initiate a coup that leads to autocracy. If a political transition takes place, the group that comes to power proposes a new tax structure.
- 5. If  $S_t^P = \mathcal{A}$ , workers can initiate a revolution which leads to socialism. If no revolution takes place, the tax structure from stage 3 or 4 is implemented.
- 6. Consumption takes place and the period ends.

This timing of events implies that foreign investments are sunk and cannot be removed in response to developments in the destination country.<sup>20</sup> Moreover, the foreign government can intervene in the destination country *before* regime transitions take place with a view to avoiding or encouraging such transitions. Finally, coups are only possible against a democracy. Revolutions are only possible against an autocracy. This rules out the possibility of a coup and a revolution happening within the same period.<sup>21</sup>

We treat the members of the elite, the workers, and the foreign government and lobby group as players of a dynamic game. We restrict attention to

<sup>&</sup>lt;sup>19</sup>It is not important for the results that the foreign government observes the social state before it intervenes. It is, however, realistic that it can adjust its support to foreign regimes in response to social circumstances in the country.

<sup>&</sup>lt;sup>20</sup>Some foreign investments are footloose and can respond immediately to changes in the tax policy of the destination country. We study this case in Aidt and Albornoz (2007).

<sup>&</sup>lt;sup>21</sup>Revolution against a democratic regime is an interesting possibility that we do not consider here. The model can, however, easily be extended to accommodate this possibility.

pure strategy Markov perfect equilibria, i.e., equilibria in which the strategies of the players in a given period only depend on the current state of the world (and prior actions taken within that period).

# 3 Political Regimes in the Absence of Foreign Intervention

We assume that the destination country is an autocracy in period 0. This is reasonable when considering long-run institutional development, as virtually all societies were governed by some form of autocracy in the past. We begin the analysis by leaving aside the possibility of foreign intervention and characterize the resulting regime typology of the destination country. The analysis follows Acemoglu and Robinson (2001) closely, and we restrict ourselves to a brief and informal discussion of the resulting tax treatment of FDI.<sup>22</sup>

The political regime of the destination country is determined by two key parameters of the model: the cost of revolution ( $\mu$ ) and the cost of a coup ( $\phi$ ). Depending on how large these costs are relative to the six thresholds defined in Table 1, the destination country can be a consolidated or semiconsolidated autocracy, or a democracy, or an unstable democracy. The equilibrium regime typology and the associated tax structure in social state G is illustrated in Figures 1 and 2. Figure 1 shows how the tax structure varies in an autocracy as a function of the cost of revolution, while Figure 2 shows for  $\mu < \mu_1$  how the tax structure in the various democratic regimes varies with the cost of a coup. The tax structure in social state B is always that most-preferred by the group in power and not illustrated in the two figures.

Whether autocracy prevails or not depends critically on the cost of revolution ( $\mu$ ). If this cost is greater than the threshold  $\mu_1$ , the elite can prevent a revolution through tax concessions when the social state is G and the destination country remains an autocracy throughout. How the elite adjusts

<sup>&</sup>lt;sup>22</sup>The Online Appendix A with the detailed analysis is posted at http://www.econ.cam.ac.uk/faculty/aidt/papers/web/JDE/ONLINE\_APP\_A\_B.pdf.

$\mu$ -thresholds	$\phi$ -thresholds
$\mu_{1} = \frac{\left(L + 2\beta(1-L)^{2}(1-\psi)\overline{\tau}_{L} - L^{2}(1-\beta(1-\psi))\overline{\tau}_{\pi}\right)A}{(1-\psi)^{2}}$	$\phi_1 = \frac{AL(L(L-\alpha)\overline{\tau}_{\pi} + 2(1-L)^2\overline{\tau}_L)}{(1-L)^2\overline{\tau}_L}$
$\begin{array}{c} \mu^{\alpha_1} \\ \hline \\ \\ \\ \\ \hline \\$	$\varphi_1 = 2(1-(1-\psi)\beta)(1-L)$
$\mu_2 = \frac{\left(\frac{1}{2}L + \tau_L(1-L)^2\right)A}{1-\beta}$	$\phi_2 = (1 - 2\psi) \beta \phi_1$
$\mu_{3} = \frac{\left(L - L^{2} \overline{\tau}_{\pi} + 2(1 - L)^{2} (1 - \beta(1 - \psi)) \overline{\tau}_{L}\right) A}{2(1 - \beta)}$	$\phi_3 = \phi_1 - \frac{(1-L)(1-\beta(1-2\psi))AL\bar{\tau}_L}{(1-(1-\psi)\beta)}$
Note: $\mu_1 < \mu_3 < \mu_2$ and $\phi_1 > \phi_3 > \phi_2$	

Table 1: Definitions of the Six Thresholds

the tax structure depends on how big  $\mu$  is. If  $\mu$  is larger than the threshold  $\mu_2 > \mu_1$ , the threat of a revolution is so weak that no concessions are needed. The destination country is a *consolidated autocracy* and the most preferred tax structure of the elite,  $\tau^{\mathcal{A}} = (\overline{\tau}_L, 0)$ , is implemented each period. When the cost of revolution is in the intermediate range,  $\mu \in [\mu_1, \mu_2)$ , the elite can still get away with setting  $\tau^{\mathcal{A}} = (\overline{\tau}_L, 0)$  when the social state is B; however, in state G, it must adjust the tax structure to prevent a revolution: the destination country becomes a *semi-consolidated autocracy*. The cheapest way to adjust the tax structure is to increase the tax on profits from zero, but eventually when  $\mu$  falls below the threshold  $\mu_3 \in (\mu_1, \mu_2)$  the maximum profit tax is insufficient and the tax on wage income must be cut. In other words, the lower the cost of a revolution, the higher the tax on profits and the less FDI-friendly the autocracy becomes. When  $\mu$  falls below  $\mu_1$ , not even  $\tau_{\pi} = \overline{\tau}_{\pi}$  and  $\tau_L = 0$  is enough. The elite must introduce democracy the first time the social state is G to avoid a revolution.

The type of democracy that emerges when revolutions are cheap ( $\mu < \mu_1$ ) depends critically on the cost of a coup ( $\phi$ ). This is illustrated in Figure 2. If the cost of a coup is larger than the threshold  $\phi_1$ , the domestic economy becomes a *consolidated democracy* the first time the social state is G and workers set  $\tau^{\mathcal{D}} = (0, \overline{\tau}_{\pi})$  every period thereafter. In other words, the destination country becomes extremely FDI-unfriendly. If, on the other hand, the cost of a coup is lower that the threshold  $\phi_2$ , the transition to democracy is temporary and the outcome is *unstable democracy*. The elite will, at the first opportunity after a franchise extension, mount a coup and reinstate autocracy in order to give workers voting rights next time the social state is G. The tax structure, therefore, oscillates between periods with  $\tau^{\mathcal{D}} = (0, \overline{\tau}_{\pi})$  and periods with  $\tau^{\mathcal{A}} = (\overline{\tau}_L, 0)$ . When the cost of a coup falls in the intermediate range between  $\phi_2$  and  $\phi_1$ , the destination country becomes a *semi-consolidated democracy* in which workers adjust the tax structure (away from  $\tau^{\mathcal{D}} = (0, \overline{\tau}_{\pi})$ ) each time the social state is G to head off a coup. The cheapest way to do this is to finance redistribution toward the elite by taxing wage income while keeping the profit tax at the maximum. This adjustment is sufficient when coups are relatively expensive and the cost of a coup is above the threshold  $\phi_3 \in (\phi_2, \phi_1)$ ; however, once the cost falls below  $\phi_3$ , workers must tax themselves at the maximum and, on top of that, reduce the profit tax below  $\overline{\tau}_{\pi}$ . In other words, the lower the cost of a coup, the lower the tax on profits and the more FDI-friendly the democracy becomes.

An important empirical implication of the analysis should be stressed before we turn to the question of foreign intervention. As Figures 1 and 2 make very clear, our theory implies that there is no simple link between the tax treatment of foreign investors and regime type. While it is true (in our theory) that a consolidated democracy taxes FDI more heavily than a consolidated autocracy, an autocracy under threat of revolution may be FDIunfriendly, while a democracy under threat of a coup may be FDI-friendly. This poses a serious challenge to any empirical attempt to uncover a link between FDI flows and political regime types. To identify the true effect of regime type, one would need to control for how threatened each regime is, and that is, of course, difficult to do. Seen in this light, it is, therefore, not surprising that it has proved difficult to establish robust causal links between flows of foreign investments and political regime types.<sup>23,24</sup>

 $<sup>^{23}</sup>$ While Oneal (1994) finds that the return to U.S. investment abroad was greater in autocratic regimes, Kolstada and Villanger (2008) show that FDI in services to developing countries tends to be directed at democracies. Harms and Ursprung (2002) show that multinational corporations tend to be attracted to countries in which civil and political freedom is respected. See also Busse and Hefeker (2007).

 $<sup>^{24}</sup>$ In contrast, the literature on the link between regime type and international trade is more conclusive and suggests that autocracies trade less than democracies (see, e.g., Aidt and Gassebner (2010)).



# 4 Foreign Intervention

Foreign investors have an obvious interest in the political regime of the destination country: the regime type determines, as we have seen above, the tax treatment of FDI. As discussed in section 2.2, foreign investors may take collective action and lobby the government of the source country to get it to intervene on their behalf in the regime choice of the destination country. The incentive to lobby for intervention, as well as the preferred mode of intervention, depends on what would happen in the absence of foreign intervention.

In order to study the impact of foreign intervention on the regime dynamics of the destination country, we need to define the counter-factual. The natural benchmark is the situation in which the destination country would undergo the transition from autocracy to consolidated democracy in the absence of any foreign intervention. To this end, we assume throughout this section that  $\mu < \mu_1$  and  $\phi > \phi_1$ . Accordingly, in the absence of any foreign intervention, the discounted payoff of the foreign investors is<sup>25</sup>

<sup>&</sup>lt;sup>25</sup>See appendix A for details.



$$W_F(NI) = \frac{\alpha A L^2}{2(1-\beta)} - \frac{\psi \overline{\tau}_{\pi} \alpha A L^2}{2(1-\beta)(1-(1-\psi)\beta)},$$
(9)

where NI denotes non-intervention. Since we restrict attention to the parameter space where, the destination economy will become a consolidated democracy in the absence of foreign intervention, it is clear that FDI is taxed at the maximum rate  $\overline{\tau}_{\pi}$  as soon as the destination country transits to democracy. The foreign investors ideally want their foreign investments to be untaxed. By lobbying the foreign government, they can, if they are willing to pay  $C(i_t; S_t^s, S_t^p) \geq \frac{\theta(i_t)}{\gamma}$ , trigger a foreign intervention that would reduce the tax on FDI to zero in periods of intervention.<sup>26</sup>

Broadly speaking, foreign intervention can be aimed at eliminating, when possible, any threat of revolution and in that way stabilize autocracy and secure a low tax on FDI. Alternatively, it can be aimed at making the threat of a coup so salient that it either becomes worthwhile for the elite of the destination country to mount a coup d'état or it forces a democratic government

<sup>&</sup>lt;sup>26</sup>As discussed in appendix A, for  $\gamma$  sufficiently large intervention plans that result in  $\tau_{\pi} = 0$  dominates alternative plans that result in  $\tau_{\pi} > 0$ . We assume that  $\gamma$  satisfy this condition and restrict attention to intervention plans that result in  $\tau_{\pi} = 0$ .

to treat FDI leniently to avoid a coup. More specifically, the investor lobby group may consider lobbying for three different intervention plans:

- 1. Counter Revolution (i = CR): The foreign government prevents the transition to democracy by helping the elite combat the threat of revolution each time the social state is G. The cost of doing this is  $\mu \mu_2$ , i.e., the distance between the pre-intervention cost of revolution  $(\mu)$  and the cost that consolidates autocracy  $(\mu_2)$ . The investor lobby group must pay the foreign government  $C(CR; G, \mathcal{A}) = \frac{\mu \mu_2}{\gamma}$  each time the state is  $(G, \mathcal{A})$  to induce the intervention.
- 2. Coup d'état (i = CdE): The destination country becomes a democracy the first time the social state is G, but the foreign government sponsors a coup d'état each time the state is  $(G, \mathcal{D})$ . This destabilizes the political regime of the destination country, which will fluctuate between autocracy and democracy. This cost of doing this is  $\phi \phi_2$ , i.e., the difference between the pre-intervention cost of a coup and the cost that would trigger a coup. The investor lobby group must pay the foreign government  $C(CdE; G, \mathcal{D}) = \frac{\phi \phi_2}{\gamma}$  each time the state is  $(G, \mathcal{D})$  to induce the intervention.
- 3. Forced Concessions (i = FC): The destination country becomes a democracy the first time the social state is G, but the foreign government subsidizes the coup activities of the elite just enough to make the threat of a coup so salient that the democratic government of the destination country reduces the tax on FDI to zero each time the state is  $(G, \mathcal{D})$ . The cost of doing this is  $\phi \phi_2$ , i.e., the difference between the pre-intervention cost of a coup and the cost that would trigger a coup, and the investor lobby group must pay the foreign government  $C(FC; G, \mathcal{D}) = \frac{\phi \phi_2}{\gamma}$  each time the state is  $(G, \mathcal{D})$  to induce the intervention.<sup>27</sup>

Whether the investor lobby group wants the foreign government to inter-

<sup>&</sup>lt;sup>27</sup>Strictly speaking, the cost of this intervention is  $\phi - \phi_2 - \varepsilon$  for  $\varepsilon > 0$  but arbitrarily small.

vene or not and, if so, by which mode, depends on the costs and benefits of each plan. If the investor lobby group decides in favor of plan CR, the destination country stays autocratic. To avoid democratization in social state G, the foreign government must fund counter revolutionary activities in the destination country and the investor lobby group must compensate it for the cost of doing so. This keeps the tax on foreign investments at zero at all times. The net present value of plan CR is

$$W_F(CR) = \frac{\alpha A L^2}{2(1-\beta)} - \frac{\frac{\psi}{\gamma} (\mu_2 - \mu)}{1-\beta},$$
 (10)

where the first term represents the present value of the foreign investors' share of the profits and the second term represents the expected present value of funding counter revolutionary activities to keep the destination country autocratic.

If, instead, the investor lobby group decides in favor of plan CdE, the franchise is extended in the destination country the first time the social state is G. In that period, foreign investments are taxed at the maximum rate  $(\tau_{\pi} = \overline{\tau}_{\pi})$ . In subsequent periods, foreign investments are taxed only when the social state is B. This is because the foreign government intervenes, by donating  $\phi - \phi_2$  to the "coup kitty" of the elite whenever the social state is G. As a result, this triggers a coup and reintroduces autocracy. FDI is untaxed in subsequent periods in which the social state is B, but, as soon as the social state is G again, the elite of the destination country must extend the franchise to avoid a revolution and the cycle starts over again. The net benefit of plan CdE is<sup>28</sup>

$$W_F(CdE) = \frac{\alpha A L^2 \left(1 - \beta (1 - 2\psi) - \overline{\tau}_\pi \psi\right)}{2 \left(1 - \beta (1 - 2\psi) \left(1 - \beta\right)\right)} - \frac{\left(\phi - \phi_2\right) \beta \psi^2}{\left(1 - \beta (1 - 2\psi) \left(1 - \beta\right)\gamma}, \quad (11)$$

where the first term is the expected present value of the foreign investors' profit share as the destination country fluctuates between autocracy and democracy, while the second term represents the expected present value of

 $<sup>^{28}\</sup>mathrm{See}$  appendix A for details.

the contribution required for the elite's "coup kitty" every time a coup is needed.

Finally, if the investor lobby group lobbies in favor of plan FC, the franchise is also extended the first time the social state is G and foreign investments are taxed at the maximum rate  $(\tau_{\pi} = \overline{\tau}_{\pi})$  in that period. In subsequent periods, the foreign government intervenes, by donating  $\phi - \phi_2$  to the "coup kitty" of the elite whenever the social state is G. I doing so, this forces workers to reduce the tax on foreign investments to zero but does not actually trigger a coup. The net benefit of plan FC is:<sup>29</sup>

$$W_F(FC) = W_F(CdE) - \frac{\psi\beta \left(1 - \psi\overline{\tau}_{\pi}\right)\alpha AL^2}{2\left(1 - \left(1 - \psi\right)\beta\right)\left(1 - \beta\right)}.$$
(12)

The two intervention plans CdE and FC are both aimed at making the threat of a coup d'état credible after the destination country has become a democracy and are equally expensive to finance. They do, however, induce different regime dynamics. In particular, plan CdE induces repeated regime transitions, while plan FC is associated with regime stability – democracy persists – but induces additional policy volatility. A direct comparison of  $W_F(FC)$  and  $W_F(CdE)$  shows an interesting fact about foreign intervention: it is always better for the investor lobby group to lobby for a coup d'état than to lobby for an intervention that forces democratic governments to give tax concessions. The advantage of a coup d'état is that it is in the interest of the ruling elite to keep taxes on FDI at zero after a coup until they are forced to democratize again. In contrast, if a democracy is allowed to persist, then taxes on FDI are high each time the social state is B. The expected cost of this is represented by the second term in equation (12). An implication, then, is that we can ignore plan FC in what follows: it will never be chosen.

For foreign intervention to take place, one or both of the two remaining intervention plans must dominate the non-intervention plan (NI). A comparison of the payoffs associated with the three plans shows that the investor lobby group prefers a coup d'état to the non-intervention plan ( $W_F(CdE)$  –

<sup>&</sup>lt;sup>29</sup>See appendix A for details.

 $W_F(NI) > 0$ ) whenever

$$\phi \le \phi_2 + \frac{AL^2 \alpha \gamma \overline{\tau}_{\pi}}{2\left(1 - (1 - \psi)\beta\right)} \equiv \phi\left(\gamma\right).$$
(13)

Likewise, it is better to lobby for counter revolutionary activities than to follow the non-intervention plan  $(W_F(CR) - W_F(NI) > 0)$  whenever

$$\mu \ge \mu_2 - \frac{AL^2 \alpha \gamma \overline{\tau}_{\pi}}{2\left(1 - (1 - \psi)\beta\right)} \equiv \mu\left(\gamma\right). \tag{14}$$

Let us recall that we assume that the destination country would emerge as a consolidated democracy in the absence of foreign intervention, i.e.,  $\mu < \mu_1$ and  $\phi > \phi_1$ . We, therefore, need  $\phi(\gamma) > \phi_1$  and/or  $\mu(\gamma) < \mu_1$  for foreign intervention of any kind to be optimal. This, in turn, requires that

$$\gamma \ge \frac{\left(2\overline{\tau}_L \left(1-L\right)^2 + \overline{\tau}_\pi L(L-\alpha)\right) \left(1-\beta(1-2\psi)\right)}{L\alpha\overline{\tau}_\pi \left(1-L\right)} \equiv \gamma_\phi \tag{15}$$

and/or

$$\gamma \ge \frac{\left(2\overline{\tau}_L \left(1-L\right)^2 + \overline{\tau}_\pi L^2\right) \left(1-\left(1-\psi\right)\beta\right)^2}{\left(1-\beta\right) L^2 \alpha \overline{\tau}_\pi} \equiv \gamma_\mu.$$
 (16)

The parameter  $\gamma$  is a measure of the pro-investor bias of the foreign government. Foreign intervention is, therefore, sponsored by governments with a large pro-investor bias, either because they are easily captured by special interests or because they value investments in the destination country for strategic reasons. Governments that are mostly concerned with the cost of intervention (low  $\gamma$ ) are, typically, too expensive to lobby. In these cases, the investor lobby group simply accepts that the tax on FDI will be high as soon as the destination country becomes a democracy and adjusts its initial investment plan accordingly.

We assume in the following that some form of intervention is optimal (i.e., that  $\gamma \geq \max\{\gamma_{\phi}, \gamma_{\mu}\}$ ), and ask whether foreign intervention tends to stabilize autocracy (plan CR) or to destabilize democracy (plan CdE).

### 4.1 Optimal Intervention Plans

Given that some form of intervention is optimal, the foreign government and its backer amongst foreign investors must decide on the mode of intervention. It follows from equations (10) and (11) that the investor lobby group is indifferent between the two intervention plans when

$$\phi = \phi_2 - \frac{AL^2 \alpha \overline{\tau}_\pi \gamma}{2\beta \psi} - \frac{\left(1 - \beta (1 - 2\psi) \left(\mu - \mu_2\right)}{\beta \psi} \equiv \phi(\mu).$$
(17)

We observe that  $\phi < \phi(\mu)$  implies  $W_F(CdE) > W_F(CR)$ . In this case, the investor lobby group lobbies for a coup each time the social state is G. On the other hand,  $\phi \ge \phi(\mu)$  implies that  $W_F(CdE) \le W_F(CR)$ . In this case, the foreign government, under influence of the investor lobby group, consolidates the autocratic regime of the destination country. Building on the preceding analysis, the next propositions summarize the optimal intervention plans. Both propositions are predicated on the assumption that some form of intervention is optimal, i.e., that  $\mu \in [\mu(\gamma), \mu_1]$  or  $\phi \in [\phi_1, \phi(\gamma)]$ .

**Proposition 1** (Foreign-sponsored Counter Revolution) Whenever  $\phi > \phi(\mu)$ , foreign intervention is aimed at stabilizing autocracy through foreign-sponsored counter revolutionary activities (plan CR is optimal).

**Proposition 2** (Foreign-sponsored Coup d'état) Whenever  $\phi \leq \phi(\mu)$  foreign intervention is aimed at overthrowing democracies through a foreign-sponsored Coup d'état (plan CdE is optimal).

**Proof**  $\mu \in [\mu(\gamma), \mu_1]$  or  $\phi \in [\phi_1, \phi(\gamma)]$  imply that some form of foreign intervention is optimal. Notice that  $\phi(\mu(\gamma)) = \phi(\gamma)$  and  $\phi'(\mu) < 0$ , so  $\phi(\mu)$  cuts the plane  $[\mu(\gamma), \mu_1] \times [\phi_1, \phi(\gamma)]$  in two halves. The two propositions follow directly from this  $\blacksquare$ 

The two propositions are illustrated in Figure 3. For  $\phi$  and  $\mu$  within the lightly colored area, it is optimal to consolidate an investment-friendly autocracy by funding counter revolutionary activities when needed and blocking universal suffrage (i.e., to follow plan CR). This is optimal when the cost of revolution is relatively high. This is intuitive, as a relatively high  $\mu$  makes it

cheap to subsidize counter revolutionary activities. It is interesting to note that regimes transitions can also be triggered by the withdrawal of foreign support. In particular, autocracies, supported by foreign funding of counter revolutionary activities, will be forced to democratize if the flow of funds dries up. Arguably, the reemergence of democracy in several Latin American countries in the late 1980s provides examples of this.

For  $\phi$  and  $\mu$  within the dark-colored area of Figure 3, plan CdE is optimal and the foreign government waits for democracy to emerge in the destination country in order to then destabilize the regime by financing a coup at the first opportunity. This re-establishes autocracy and ensures that the tax on foreign investments is zero most of the time. This requires that the cost of a coup to be relatively low such that it is relatively cheap to subsidize coups.



### 4.2 Economic Causes of Foreign Intervention

Whether foreign intervention is optimal or not and, if so, how it might manifest itself, depends on the economic fundamentals of the model  $(A, \alpha, L)$ . These fundamentals affect the thresholds  $\gamma_{\phi}$ ,  $\gamma_{\mu}$  and  $\phi(\mu)$ . Through this they increase or decrease the set of parameter values, for which each of the three intervention plans (NI, CdE, CR) are optimal.<sup>30</sup> This allows us to study the economic causes of foreign intervention and the resulting effects on regime dynamics.

We can interpret the parameter A as an index of the income level of the destination country. Destination countries with lower income levels are not more likely to be subject to foreign intervention than countries with higher incomes  $\left(\frac{\partial \gamma_{\phi}}{\partial A} = \frac{\partial \gamma_{\mu}}{\partial A} = 0\right)$ . This is because all payoffs increase in proportion to A. The income level of the destination country, however, does affect the preferred mode of intervention. An increase in A reduces the cost of supporting a coup  $\left(\frac{\partial \phi_2}{\partial A} > 0\right)$ . At the same time, it also increases the cost of suppressing a revolution  $\left(\frac{\partial \mu_2}{\partial A} > 0\right)$ . This, *ceteris paribus*, shifts the preference of the investor lobby group towards a coup d'état. However, the increase in A also has a direct effect on the payoffs of the two intervention plans simply because foreign investments become more profitable. The payoff to plan CR goes up faster than the payoff to plan CdE. This, *ceteris paribus*, shifts the investor lobby group's preference towards counter revolutionary activities. When the pro-investor bias  $(\gamma)$  becomes sufficiently large, the latter effect dominates the former.<sup>31</sup> We interpret this as saying that, given it is relatively easy for investor interests to capture the government of the source country, foreign sponsored coups are more likely to be directed at poor destination countries, while the preferred mode of intervention in richer destination countries is to finance counter revolutionary activities and stabilize autocracy.

We can interpret the parameter  $\alpha$  as an index of the economic importance of FDI, reflecting the profitability of investments in extraction industries, agriculture, infrastructure etc. at different destinations. An increase

<sup>&</sup>lt;sup>30</sup>The derivation of the comparative statics are detailed in the online appendix B at http://www.econ.cam.ac.uk/faculty/aidt/papers/web/JDE/ONLINE\_APP\_A\_B.pdf.

<sup>&</sup>lt;sup>31</sup>For  $\gamma$  close to max{ $\gamma_{\phi}, \gamma_{\mu}$ } it is possible to find examples in which an increase in A makes a foreign-sponsored coup more likely.

in the economic importance of FDI makes foreign intervention more likely  $\left(\frac{\partial \gamma_{\phi}}{\partial \alpha} < 0, \frac{\partial \gamma_{\mu}}{\partial \alpha} < 0\right)$ . As one would expect, the investor lobby group is more willing to compensate the foreign government for the cost of intervention when profits are higher. More interestingly, the preferred mode of intervention shifts unambiguously towards financing counter revolutionary activities, i.e.,  $\frac{\partial \phi(\mu)}{\partial \alpha} < 0$ . The reason for this is that the cost of plan CR is independent of  $\alpha$   $\left(\frac{\partial \mu_2}{\partial \alpha} = 0\right)$  because workers' incentive to revolt is not affected by how the profit is split between foreign and domestic capitalists. On the other hand, the cost of plan CdE is increasing in  $\alpha \left(\frac{\partial \phi_2}{\partial \alpha} < 0\right)$ . This is because the elite of the destination country is less willing to pay the cost of a coup when it has a lower stake in profits.

We can interpret L – the measure of workers – as a rough index of inequality: if L is high, most citizens are low-paid workers and income inequality is relatively high. An increase in inequality makes, under a mild condition,<sup>32</sup> foreign intervention more likely  $\left(\frac{\partial \gamma_{\phi}}{\partial L} < 0, \frac{\partial \gamma_{\mu}}{\partial L} < 0\right)$ . The reason why foreign intervention tends to be directed at more unequal societies is that FDI is more profitable in places where a large workforce keeps wage costs down.<sup>33</sup>

#### 5 The Investment Decision

At the beginning of period 0, the foreign investors decide once and for all if they want to make the investment in the destination country or not. They make this decision in full knowledge of the regime dynamics that will unfold from then onwards. Let  $W_F(i)$  denote the intertemporal payoff of foreign investors, net of any cost of lobbying for intervention, as a function of the intervention plan of the foreign government. They will only make the investment if

$$W_F(i) \ge \frac{\Pi_0}{1-\beta} \tag{18}$$

 $<sup>{}^{32}2 &</sup>gt; \frac{\overline{\tau}_{\pi}}{\overline{\tau}_L} \frac{L^2(1-\alpha)}{(1-L)^2}.$ <sup>33</sup>A positive correlation between FDI and inequality has recently been uncovered by Basu and Guariglia (2007).

where  $\Pi_0$  is the per-period return to investments placed in the source country. The prospect of foreign intervention plays an important role for this decision. For example, suppose that the payoff associated with investing in what will become a consolidated democracy in the absence of foreign intervention is such that it is optimal not to make the investment (i.e.,  $W_F(NI) < \frac{\Pi_0}{1-\beta}$ ). If  $\gamma \geq \max\{\gamma_{\phi}, \gamma_{\mu}\}$ , foreign investors foresee that the government of the source country will be induced to influence the regime choice of the destination country and the payoff associated with oversees investments shifts to max  $\{W_F(CR), W_F(CdE)\} > W_F(NI)$ . If this is greater than  $\frac{\Pi_0}{1-\beta}$  foreign intervention encouraged FDI.

### 6 Discussion and Conclusion

Throughout the twentieth century, the United States has recurrently intervened abroad to depose foreign governments and to provoke regime changes. Kinzer (2003) surveys fourteen cases of such regime change operations. The common motive behind these interventions was "to establish, promote, and defend the right of Americans to do business around the world..." (Kinzer, 2003, page. 3). This view receives econometric support by Dube, Kaplan, and Naidu (2008). Our model stresses how economically motivated foreign intervention influences regime dynamics in destination countries and can provide a useful vehicle through which to understand many real world experiences.

First, the pro-investor bias of the foreign government plays an important role in our theory. While, for concreteness, we have interpreted  $\gamma$  as a measure of this, it is clear that it can be given a broader interpretation and be inversely related to internal and external factors that affect the cost of intervention rather than the pro-investor bias as such. For example, different political parties in the source country may perceive the cost of foreign intervention differently. Government turnover will then induce variations in  $\gamma$  over time and, as a consequence, in the type of foreign intervention originating from the source country. In this regard, it is interesting to notice that the most prominent cases of US-sponsored coups involved Republican administrations.<sup>34</sup> This, at the very least, suggests the possibility that there exists a direct link between party politics in the source country and regime dynamics in the destination country. Another example of a shift in the cost of intervention occurred at the end of the cold war when the perceived legitimacy of foreign intervention changed dramatically around the globe. This may have made foreign governments more reluctant to intervene abroad, not because the direct economic benefits of foreign investments changed much, but simply because the political cost of such interventions had risen as the fight against communism could no longer be used as a pretext. In particular, US administrations became less willing to support counter revolutionary activities abroad. Our analysis suggests that this may have contributed to the consolidation of democracy observed across Latin America in the aftermath of the cold war.

Second, the result that foreign-sponsored coups tend to occur in relatively poor and unequal countries is consistent with the historical record of many developing countries. The illustrative examples range from the coups d'état in Iran in 1953 (Gasiorowski, 1987; Kinzer, 2006), in Guatemala, 1954 (Immerman, 1980; Kinzer, 2006), and in Chile in 1973 (Kornbluh, 2004) to more recent attempts to depose Hugo Chávez in Venezuela.

Third, foreign-sponsored coups require the cooperation of local elites. In our model, this happens when the common economic interest of foreign investors and the domestic elite is threaten, by a democratic government. British and U.S. plots to depose Mohammad Mossadegh in Iran were triggered by the Iranian nationalization of the Anglo-Iranian Oil Company. One of the main economic motives behind the CIA operations that overthrew Jacobo Arbenz in Guatemala was his Agrarian Reform Law passed in 1952. This law challenged the interests of the United Fruit Company, at the time a major U.S. corporation, as well as the Guatemalan landed aristocracy. On top of this, Arbenz planned to nationalize International Railways of Central America, a company jointly owned by the United Fruit Company and members of the local elite. In Chile in the early 1970s, CIA operations surged in

 $<sup>^{34}\</sup>text{Examples}$  include the coups in Nicaragua (1909), Iran (1953), Salvador (1954), Chile (1973).

response to the demands from various factions of the Chilean elite.<sup>35</sup>

Lastly, our analysis suggests that foreign intervention aimed at consolidating an autocracy is the most likely intervention strategy in situations where the local elite is weak and foreign investors are strong (large  $\alpha$ ). In such situations, it is more likely that foreign-supported personalist dictatorships consolidate. Illustrative historical examples include the dictatorships of Trujillo in the Dominican Republic, Somoza in Nicaragua, Batista in Cuba and the Duvalier dynasty in Haiti.

We are, of course, aware that many foreign interventions occurred in the context of the Cold War. Fighting or supporting communism was most certainly a driving force behind many foreign interventions by the U.S. and by the USSR, respectively. We see "cold-war" political reasons as complementary to our focus on economic motives. On the one hand, there are cases of coups d'état in which the risk of communist regimes was overstated as an excuse for intervention. This includes the cases of Zelaya in Nicaragua (1912), Arbenz in Guatemala (1953), Mosaddeq in Iran (1953) and Allende in Chile (1973). On the other hand, the efforts to avoid communist revolutions are arguably reinforced by economic interests.

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<sup>&</sup>lt;sup>35</sup>According to Kinzer (2003), Agustín Edwards, archetypical member of the Chilean elite, initiated the lobby for U.S. intervention that eventually deposed Salvador Allende in 1973.

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# Appendix A

The per-period payoffs of foreign investors under consolidated democracy and autocracy are:

$$v_F\left(\tau^{\mathcal{D}}, \mathcal{D}\right) = \frac{\alpha A L^2}{2} \left(1 - \overline{\tau}_{\pi}\right) \tag{19}$$

$$v_F(\tau^{\mathcal{A}}, \mathcal{A}) = \frac{\alpha A L^2}{2} \tag{20}$$

Since the domestic economy becomes a consolidated democracy the first time the social state is G, plan NI yields

$$W_F(NI) = \psi \left( v_F(\tau^{\mathcal{D}}, \mathcal{D}) + \beta W_F(\mathcal{D}) \right) + (1 - \psi) \left( v_F(\tau^{\mathcal{A}}, \mathcal{A}) + \beta W_F(NI) \right).$$
(21)

As  $W_F(D) = v_F(\tau^{\mathcal{D}}, \mathcal{D}) + \beta W_f(D)$ , we obtain that  $W_F(D) = \frac{v_F(\tau^{\mathcal{D}}, \mathcal{D})}{1-\beta}$ . Substituting this into equation (21) and using equations (19) and (20) yield equation (9).

Plan FC yields

$$W_F(FC) = \psi \left( v_F(\tau^{\mathcal{D}}, \mathcal{D}) + \beta W_F(\mathcal{D}) \right) + (1 - \psi) \left( v_F(\tau^{\mathcal{A}}, \mathcal{A}) + \beta W_F(FC) \right).$$
(22)

The expected value of democracy is

$$W_F(\mathcal{D}) = \psi \left( v_F(\tau^{\mathcal{A}}, \mathcal{A}) + \frac{(\phi - \phi_2)}{\gamma} + \beta W_F(\mathcal{D}) \right)$$
(23)  
+(1 - \psi) \left( v\_F(\tau^{\mathcal{D}}, \mathcal{D}) + \beta W\_F(\mathcal{D}) \right).

Solving this equation yields

$$W_F(\mathcal{D}) = \frac{\psi(v_F(\tau^{\mathcal{A}}, \mathcal{A}) - \frac{(\phi - \phi_2)}{\gamma}) + (1 - \psi)v_F(\tau^{\mathcal{D}}, \mathcal{D})}{1 - \beta}.$$
 (24)

Substituting equation (24) into equation (22) and using equations (19) and

(20) yield equation (12).

Plan CdE yields

$$W_F(CdE) = \psi \left( v_F(\tau^{\mathcal{D}}, \mathcal{D}) + \beta W_F(\mathcal{D}) \right) + (1 - \psi) \left( v_F(\tau^{\mathcal{A}}, \mathcal{A}) + \beta W_F(CdE) \right).$$
(25)

The expected value of democracy and autocracy, respectively, are

$$W_F(\mathcal{D}) = \psi \left( v_F(\tau^{\mathcal{A}}, \mathcal{A}) - \left( \frac{\phi - \phi_2}{\gamma} \right) + \beta W_F(\mathcal{A}) \right)$$
  
+  $(1 - \psi) \left( v_F(\tau^{\mathcal{D}}, \mathcal{D}) + \beta W_F(\mathcal{D}) \right)$  (26)

$$W_F(\mathcal{A}) = \psi \left( v_F(\tau^{\mathcal{D}}, \mathcal{D}) + \beta W_F(\mathcal{D}) \right)$$
  
+  $(1 - \psi) \left( v_F(\tau^{\mathcal{A}}, \mathcal{A}) + \beta W_F(\mathcal{D}) \right).$  (27)

Solve these two equations to get

$$W_{F}(\mathcal{D}) = \frac{(1 - \beta - \psi(1 - 2\beta)) v_{F}(\tau^{\mathcal{D}}, \mathcal{D}) + \psi v_{F}(\tau^{\mathcal{A}}, \mathcal{A})}{(1 - \beta) (1 - \beta (1 - 2\psi))} - \frac{\left(\frac{\phi - \phi_{2}}{\gamma}\right) \psi (1 - \beta(1 - \psi))}{(1 - \beta) (1 - \beta (1 - 2\psi))}.$$
(28)

Substitute this into  $W_F(CdE)$  and solve to get

$$W_{F}(CdE) = \frac{\left(\psi v_{F}(\tau^{\mathcal{D}}, \mathcal{D}) + (1-\psi) v_{F}(\tau^{\mathcal{A}}, \mathcal{A})\right)}{(1-(1-\psi)\beta)}$$
(29)  
+  $\beta \psi \left(\frac{(1-\beta-\psi(1-2\beta)) v_{F}(\tau^{\mathcal{D}}, \mathcal{D}) + \psi v_{F}(\tau^{\mathcal{A}}, \mathcal{A})}{(1-\beta)(1-\beta(1-2\psi))(1-(1-\psi)\beta)}\right)$   
-  $\frac{\beta \psi \left(\frac{\phi-\phi_{2}}{\gamma}\right) \psi (1-\beta(1-\psi))}{(1-\beta)(1-\beta(1-2\psi))(1-(1-\psi)\beta)}.$ 

Substituting the expressions for  $v_F(\tau^{\mathcal{D}}, D)$  and  $v_F(\tau^{\mathcal{A}}, A)$  from equations (19) and (20) yields equation (11).

In the text, we focus on plan FC which involves paying  $\phi - \phi_2$  to reduce the tax of FDI to zero. However, the investor lobby group could also consider intermediate plans that reduce the tax below  $\tau_{\pi}^{\mathcal{D}} = \overline{\tau}_{\pi}$  but not down to zero. Let  $\phi_T > \phi_2$  be the "target cost" of a coup and  $\tau_{\pi}(\phi_T)$  be the resulting tax on profits, where

$$\tau_{\pi}(\phi_{T}) = \frac{2(1-L)}{AL^{2}(L-\alpha)} \left( \frac{(1-\alpha)AL^{2}}{2(1-L)} + \overline{\tau}_{L}LA(1-L) \right)$$
(30)  
$$-\frac{2(1-L)\left(\frac{A}{2}L^{2}\alpha - (1-2\psi)\beta\frac{A}{2}L^{2}\alpha(1-\overline{\tau}_{\pi}) - (1-(1-\psi)\beta)\phi_{T}\right)}{(1-(1-2\psi)\beta)AL^{2}(L-\alpha)}.$$

The payoff associated with this is

$$W_{F}(\phi_{T};FC) = \frac{\left(\left(1-\tau_{\pi}(\phi_{T})\right)\psi\left(1-\psi\beta\right)\right)\frac{A}{2}L^{2}\alpha}{\left(1-(1-\psi)\beta\right)\left(1-\beta\right)} + \frac{\left(\left(\left(1-\beta\right)\left(1-\psi\right)+\psi^{2}\beta\right)\right)\frac{A}{2}L^{2}\alpha}{\left(1-(1-\psi)\beta\right)\left(1-\beta\right)} - \frac{\left(\frac{\phi-\phi_{T}}{\gamma}\right)\psi^{2}\beta}{\left(1-(1-\psi)\beta\right)\left(1-\beta\right)}.$$
(31)

After differentiating with respect to  $\phi_T$  we obtain

$$\frac{\partial W_F(\phi_T; FC)}{\partial \phi_T} = \frac{-\left(\frac{\alpha K}{(1-\alpha-K)}\frac{(1-(1-\psi)\beta)}{1-(1-2\psi)\beta}\right)\psi\left(1-\psi\beta\right) + \frac{1}{\gamma}\psi^2\beta}{\left(1-(1-\psi)\beta\right)(1-\beta)}.$$
(32)

We see that  $\frac{\partial W_F(\phi_T;FC)}{\partial \phi_T} < 0$  if and only if

$$\gamma > \frac{\psi\beta\left(1 - (1 - 2\psi)\beta\right)\left(L - \alpha\right)}{\left(\alpha\left(1 - L\right)\left(1 - (1 - \psi)\beta\right)\right)\left(1 - \psi\beta\right)} \equiv \underline{\gamma}$$
(33)

We assume that this is satisfied so that the "best" plan of type FC is the one that involves paying  $\phi - \phi_2$  and forcing the tax rate to zero. This is dominated by plan CdE and we can, therefore, rule out all plans of type FC.