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THE RIGHT AND LEFT OF FOREIGN INFLUENCE

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ABSTRACT

We present an economic rationale for countries resorting to foreign influence to export their ideology to other nations. Our model incorporates two fundamental elements: redistribution of the tax burden between capital owners and workers, and international capital mobility. The model highlights the role of ideology in shaping both the taxes implemented by governments and the cross-border externalities of these policy choices. Pro-capital governments set lower capital taxes than pro-labor governments. Importantly, pro-capital governments benefit from other countries setting low capital taxes, while pro-labor governments' efforts to shift the tax burden onto capital owners are facilitated by higher capital taxes abroad. These cross-border externalities create strong incentives for engaging in foreign influence activities. We solve for a political equilibrium in which incumbent governments may exert costly actions that probabilistically affect the electoral outcome in other countries. In equilibrium, pro-capital parties exert influence aimed at promoting pro-capital parties and policies worldwide, while pro-labor governments carry out foreign influence activities aimed at boosting pro-labor parties and policies in other countries.

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1 Introduction

In the realm of international politics, the influence of governments often extends beyond their own borders, as they engage in activities that are aimed at shaping political outcomes in other countries. These foreign influence efforts take various forms. In some cases, they involve no more than subtle diplomatic gestures aimed at bolstering the profile of specific foreign politicians. In other cases, foreign influence activities are done in a more covert way because they involve illegal activities, such as hacking and leaking sensitive information, spreading disinformation or providing outright financial support with the goal of promoting certain candidates. Even more starkly, there are several alleged cases of countries providing financial, logistic or direct assistance to coups aimed at removing governments or rulers perceived to be uncooperative or detrimental to a country's interests.

Russia provides a paradigmatic example of a country that has resorted to many of these practices in recent years. To bolster the National Front in the run up to the 2017 French president election, Russian President Vladimir Putin granted a high-profile audience in the Kremlin to the National Front's leader Marine Le Pen.¹ Relatedly, it was reported that the National Front had received loans from a Russian bank in 2014.² Russia has also been accused of interfering in the 2016 U.S. presidential election via the hacking and releasing of emails from the Democratic National Committee, as well as the use of social media platforms to spread disinformation and divisive content with the aim of influencing public opinion.³ In 2016, Montenegro accused Russia of involvement in a failed coup attempt aimed at preventing the country's accession to NATO.⁴ Russia's financial backing of Viktor Yanukovich through the 2000s culminating in his successful presidential bid in 2010 provide a particularly poignant illustration with grave consequences.⁵

Russia is hardly the only nation relying on foreign influence activities to advance their interests. World powers, such as the United States or China, routinely influence the political equilibrium in other countries with their allocation of foreign aid or by strategically giving contracts to foreign firms (Alesina and Dollar, 2000; Bueno de Mesquita and Smith,

¹See "Marine Le Pen of France Meets With Vladimir Putin in Moscow," New York Times, March 24, 2017.

²See "French Far Right Gets Helping Hand With Russian Loan," New York Times, December 1, 2014.

³See the FBI account in "<http://www.fbi.gov/wanted/cyber/russian-interference-in-2016-u-s-elections>", New York Times, December 1, 2014.

⁴The alleged plot involved Russian intelligence officers and Serbian nationalists, with the aim of destabilizing Montenegro and thwarting its Euro-Atlantic integration. See "Two Suspected Russian Agents Among 14 Convicted in Montenegro Coup Plot," New York Times, May 9, 2019.

⁵Yanukovich's rejection of the EU deal, which was the preamble to his ouster and the first Russian invasion of 2014, are described in "Why Did Ukraine's Yanukovich Give in to Russian Pressure on EU Deal?," Brookings Institution, December 2, 2013.

2007; Brautigam, 2011). Another common practice is to exert pressure in multilateral organizations to obtain good deals for ideologically aligned governments in foreign countries (see Dreher and Jensen, 2007). These same countries also resort to more direct forms of electoral influence that involve transfers to political agents. For instance, it is believed that the U.S. gave support to the “color revolutions” in the near abroad of Russia (see Simes, 2007).⁶ Reports suggest that China has used diplomatic channels and economic leverage to exert influence and support candidates perceived as favorable to their interests in recent elections in Australia and Canada.⁷

A notable aspect of foreign influence is that it often features a clear ideological dimension. Incumbents typically try to promote and support foreign parties or candidates abroad that share their ideological beliefs or values. This pattern is particularly evident in the perennial tug of war between the right and the left in most of Latin America over the last few decades. For example, it was widely documented that Hugo Chávez, the former President of Venezuela, had a significant impact on foreign elections during his time in office, intervening in favor of left-wing politicians such as Evo Morales in Bolivia, Rafael Correa in Ecuador, or Cristina Fernández de Kirchner in Argentina, all of whom went on to win presidential elections in their respective countries.⁸ Similarly, it is contended that in the spread of Washington Consensus policies throughout Latin America was an element of foreign influence exerted by the United States through its clout over multilateral financial agencies.⁹

Why do countries seek to ‘export’ their ideology to foreign nations? More specifically, why are the policies put in place by right-leaning pro-capital governments particularly appealing to other right-leaning pro-capital foreign nations, and why are the policies implemented by left-leaning pro-worker governments particularly desirable to other left-leaning pro-worker governments?

⁶Weiner (2007) also documents that the United States gave direct financial support to certain political figures in Italy, Japan and Chile among other countries. See also Kinzer and Schlesinger (1982) and Kinzer (2006) for descriptions of U.S. interventions in foreign countries with the specific goal of fomenting coups.

⁷See Garnaut (2018) or “Did China Help Vancouver’s Mayor Win Election?” May 7, 2023.

⁸See, for instance, “Chávez builds his sphere of influence” NBC News, February 23, 2007. Chávez’s influence on foreign elections was not limited to Latin America, as he also had an impact on elections in other parts of the world. For example, his support for the Spanish left-wing party *Podemos* helped to shift the political landscape in that country.

⁹In an assessment of Washington Consensus policies, Goldfajn et al. (2021) write “Across Latin America, several political groups opposed the Washington Consensus policies, for two main reasons: some saw them as imposed by the United States in an effort to increase its control over Latin American countries and promote the interests of international companies; while others considered that these policies had already been tried in the 1980s and had failed to stabilize the economy, entailing a high economic cost.” Similarly, Rodrik (2006) describes that “...the reform agenda eventually came to be perceived, at least by its critics, as an overtly ideological effort to impose “neoliberalism” and “economic fundamentalism” on developing nations.”

One explanation for this alignment may stem from geopolitical forces. The main struggle of the Cold War was cast in terms of geopolitical blocks which were partly defined by the participants' national political and economic organization. Influencing activities expended to ensure that third countries would join or remain in each block would therefore naturally generate ideological alignment. As Chávez's activities show, however, this preference for ideological affinity has continued in a post Cold War world where geopolitical economic block dynamics are greatly attenuated.

In this paper we advance a different and complementary driver for ideological patterns of foreign influence. Our approach is grounded on domestic politics and economic spillovers.¹⁰ We contend that there is a very natural reason why left-wing governments prefer to be surrounded by left-wing governments, while right-wing governments have tried to block the emergence of such left-wing governments. Our argument is based on two elements: *redistribution* and *international capital mobility*. We show how these two elements interact to generate incentives for ideological affinity in a formal model.

Our starting point is a standard model of tax competition in which income is generated in part by capital, a factor that is internationally mobile (see [Wilson, 1986, 1991](#); [Zodrow and Mieszkowski, 1986](#)). We add to this framework an explicit consideration of labor as a factor of production that is immobile. By allowing taxation of the latter, we shut down the main concern of the extant literature on tax competition. Namely, that factor mobility generates a “race-to-the-bottom” in taxation which induces underprovision of public goods. In contrast, in our model, governments can always guarantee an optimal provision of public good by taxing labor, which is immobile. The question in our model is therefore not which level of public goods to provide, but how to pay for it. In other words, we focus on an eminently political question: how should the tax burden be distributed between suppliers of labor (i.e., workers) and suppliers of capital (i.e., capitalists)?

We introduce ideology as the way different political parties answer this question. Pro-capital parties prefer to minimize capital taxes, while pro-labor parties prefer capital to pay for a larger share of public expenditure. While the choice of capital and labor taxes is in essence an internal political struggle of each country, capital mobility generates policy externalities across borders. Importantly, as we formally show, the sign of these externalities interacts with ideology. The main novel result of our economic model is that capitalists benefit from foreign countries setting low capital taxes, because such taxes *anywhere* in

¹⁰That there are direct economic benefits from international influence has been established in some empirical analyses. [Berger et al. \(2010\)](#) show, for instance, that CIA interventions are typically followed by increases in foreign-country imports from the U.S., without a similar increase in foreign-country exports to the U.S. See [Hirschman \(1945\)](#) for an early study of the foreign influence activities of Nazi Germany.

the world reduce the returns to capital *globally*. In contrast, workers benefit from other countries' high capital taxes. This is because workers want capitalists to pay a higher share of taxes but are fearful of capital flight. High capital taxation abroad reduces outward capital flows, thus allowing pro-labor governments to increase capital taxes in their own countries. In other words, domestic redistribution is more effective when foreign countries tax capital at a higher rate. Therefore, the combination of redistributive incentives and capital mobility results in ideological affinity: pro-capital governments benefit from other countries being ruled by pro-capital governments, while pro-labor governments benefit from other countries being ruled by pro-labor governments.

Having developed these insights, we next allow countries to engage in foreign influence activities. Following our previous approach in [Antràs and Padró i Miquel \(2011\)](#), we model foreign influence as involving costly actions (by a government's incumbent) that probabilistically affect the election outcome in other countries. In the (subgame-perfect) equilibrium of our political game, parties running for election in a given country (Home) can only credibly commit to implementing their own preferred policies, while foreign incumbents have an incentive to carry out foreign influence efforts aimed at boosting the chances of winning of parties at Home with which they are politically aligned. More specifically, we show that sufficiently pro-capital incumbents take actions to increase the likelihood that the election at Home is won by a pro-capital party, while a sufficiently pro-labor Foreign incumbent would instead take actions to increase the likelihood that the election at Home is won by a pro-labor party.

We therefore propose an incentive for ideological affinity which is independent of any desire of ideological hegemony or altruism. In other words, incumbents in this model do not exert foreign influence because they believe their ideology is superior and other countries would be better off if they adopted it. Instead, in the model incumbents care exclusively about the welfare of their domestic constituents. Nonetheless, they exert foreign influence to obtain ideological affinity because policies in foreign countries produce economic spillovers which happen to be ideologically aligned.

We finally explore three extensions of our model. First, we consider the case in which incumbents in multiple countries attempt to affect the electoral outcome in a given country, and we explore the differential incentives that the various incumbents might have in shaping that election. Second, we study an environment in which elections occur in more than one country, but they do so in a staggered manner. Our main result of this extension is that foreign incumbents have an incentive to exert foreign influence and boost the electoral prospects of ideologically-aligned parties, not only to foster policies that are beneficial for their country, but also to increase their own likelihood of reelection (by increasing the

probability that the foreign actors influencing future elections in their own country will be ideologically aligned). Finally, we relax the assumption that parties cannot credibly commit to policies in the run-up to the election. In that case, foreign influence not only affects who wins an election but also the policies that the elected parties implement. More specifically, pro-capital incumbents invest efforts in promoting pro-capital parties abroad, thereby increasing the likelihood of pro-capital parties being elected, but also reducing the capital taxes announced by left-leaning pro-labor parties. The later ‘tilt to the right’ of pro-labor parties occurs in order to reduce the size of the foreign intervention in support of their domestic pro-capital opponent. Similarly, pro-labor incumbents actively promote pro-labor policies in foreign countries, thereby increasing the likelihood of pro-labor parties being elected, but also increasing the capital taxes announced by pro-capital parties.

2 Literature Review

By exploring the complex interplay between ideology, foreign influence, and policy choices, this paper contributes to our understanding of how governments navigate the global political landscape. In doing so, we provide insights into the motivations behind foreign influence activities and their implications for policy diffusion on an international scale.

We view our work as contributing to several literatures in both political science and economics.

Policy Diffusion At a broad level, our work connects with the voluminous literature on policy diffusion in political science, which examines the spread of ideas, policies, and behaviors across political systems and actors. It explores how innovations, norms, and practices are transmitted, adopted, and adapted within and between political contexts. A particularly influential contribution is the work of [Simmons and Elkins \(2004\)](#), who discuss two broad classes of diffusion mechanisms: one in which foreign policy adoptions alter the benefits of adoption for others and another in which these adoptions provide information about the costs or benefits of a particular policy innovation.¹¹ In our theoretical model, rather than diffusion occurring through conventional channels, such as policy emulation or social learning, it takes place via foreign influence, which can be seen as a form of coercion. In their broad overview of the policy diffusion literature, [Dobbin et al. \(2007\)](#) discuss coercion theories of policy diffusion, and describe them as emphasizing the role of “powerful nation-states, and international financial institutions, that threaten sanctions or

¹¹An interesting contribution by economists to learning as a mechanism of diffusion is offered by [Buera et al. \(2011\)](#).

promise aid in return for fiscal conservatism, free trade, etc.” This coercion approach to policy diffusion connects with Marxist thought, and in particular with Lenin’s theory of imperialism (see [Lenin, 1917](#)). Our approach is closest in spirit to this coercion approach but we do not limit attention to influence activities carried out by right-wing or pro-capital parties.¹²

Foreign Influence Our work is also related to a literature at the intersection of economics and political science studying foreign influence.¹³ This literature has been recently reviewed in [Aidt et al. \(2021\)](#). These authors distinguish three types of intervention strategies: (i) ‘agreement’ interventions in which influence abroad is achieved through a negotiated bilateral agreement, (ii) ‘policy’ interventions in which influence is exerted via the use of strategically chosen rewards or sanctions, but without seeking to change the target country’s institutions, and (iii) ‘institutional’ interventions in which the foreign power seeks to change the institutions that govern policy making in the target country. Our modeling of foreign influence is closest in spirit to the latter type of intervention, but we believe that our rationale for exporting ideology also applies to situations in which foreign influence seeks to shape foreign policies via mechanisms other than meddling in foreign elections. As mentioned before, our model of foreign influence is especially related to that in [Antràs and Padró i Miquel \(2011\)](#), where we showed that *the possibility* of foreign influence leads to policies that end up maximizing a weighted sum of domestic and foreign welfare, and may thus increase aggregate world welfare when there are no other means of alleviating the externalities that arise from cross-border effects of policies (see also [Aidt and Hwang, 2014](#)). In that prior work, however, we altogether ignored the role of ideology. As a result, foreign influence only worked as a threat and did not actually materialize in the subgame perfect equilibrium of our game. Instead, in the model we present here, foreign influence occurs along the equilibrium path.

Tax Competition The tax competition literature examines the strategic interactions between governments as they compete to attract mobile capital by setting tax policies. Seminal contributions to that literature include the informal discussion in [Oates \(1972\)](#) and the formal models in [Wilson \(1986\)](#) and [Zodrow and Mieszkowski \(1986\)](#).¹⁴ This literature has mainly focused on how countries’ tax policies affect each other, with a

¹²[Quinn and Toyoda \(2007\)](#) empirically studies the role of ideology in the spread of financial globalization, but their focus is not on coercion mechanisms.

¹³There is of course a much broader literature in political science studying the interplay between international and domestic politics. See, among many others, [Putnam \(1988\)](#), [Garrett and Lange \(1995\)](#), and [Frieden and Rogowski \(1996\)](#).

¹⁴For a recent contribution, see [Hatfield and Padró i Miquel \(2012\)](#).

particular emphasis on the implications of lower tax rates for public good provision and economic welfare.¹⁵ However, little attention has been paid to ideology in shaping countries' competition to attract capital, and to the role of foreign influence activities on governments' policy choices, which are key features of our framework.

Ideology and Electoral Competition By emphasizing the role of ideology in electoral competition, we naturally also connect with the political economy literature on this topic. [Alesina \(1988\)](#) showed how a lack of commitment would drive ideologically motivated candidates to announce and later implement distinct policies in the run up to an election, even when they are largely motivated to win the election. This lack of commitment is also a feature of the political equilibrium in our baseline model, but we will also demonstrate the robustness of our main insights to alternative assumptions on commitment, along the lines of [Wittman \(1983\)](#). By emphasizing the role of capital taxation as a redistributive tool, our work also relates to the seminal work of [Alesina and Rodrik \(1994\)](#). Relative to their work, we introduce international capital mobility (theirs is a closed-economy model), but we do not study the implications of our framework for economic growth. The interplay between ideology and redistribution in an open-economy environment has been studied by [Dutt and Mitra \(2005\)](#), but their focus is on trade policy choices, and their work does not consider the role of foreign influence.¹⁶

3 A Model of Taxation with Capital Mobility

Our framework shares many features with standard models of tax competition (see [Wilson, 1986, 1991](#)). Governments raise income taxes to finance a public good in an environment in which income is generated in part by factors that are internationally mobile. Our introduction of taxes on immobile factors will however eliminate the standard public good underprovision result in that literature, and will allow us to focus attention on the distinctive aspects of our model.

3.1 Economic Environment

The world consists of N countries indexed by i . Each country i is endowed with \bar{K}_i units of capital and \bar{L}_i units of labor. Capital is in the hands of a set of 'capitalists', who for

¹⁵As pointed out by [Vogel \(1997\)](#) and subsequent work on the California effect (see, for instance [Vogel and Kagan, 2004](#)), international competition can in some cases lead to a race to top rather than a race to the bottom in regulatory policies.

¹⁶A branch of the literature on foreign influence mentioned above and reviewed in [Aidt et al. \(2021\)](#) has studied how foreign lobbying shapes trade policy ([Hillman and Ursprung, 1988](#); [Gawande et al., 2006](#)).

simplicity do not supply labor, while \bar{L}_i is uniformly distributed among a set of ‘workers’, who for simplicity do not own capital.¹⁷ Capital is freely mobile across countries but labor is internationally immobile. We assume that all countries are of non-negligible size.

There are two goods consumed in each country i : a non-tradable public good G_i and a private consumption good Y_i which is produced under a neoclassical production technology that combines capital and labor. In particular, we have

$$Y_i = F_i(K_i, L_i),$$

where $F_i(K_i, L_i)$ features positive but diminishing marginal products. The public good is financed with a combination of a per-unit tax τ_i^L on labor and a per-unit tax τ_i^K on capital. The provision of public goods does not use any other resources. The private consumption good is freely traded across countries and we set its price to 1 worldwide.

Preferences are such that the joint utility of all agents of type $s = k, \ell$ is given by

$$U_i^s = \begin{cases} C_i^k & \text{if } s = k \\ C_i^\ell + v_i(G_i) & \text{if } s = \ell \end{cases}, \quad (1)$$

where superscripts k and ℓ denote capitalists and workers, respectively. Equation (1) indicates that all agents derive utility from consuming the private good, while workers in addition derive utility from the provision of the public good. This latter assumption can be interpreted as capitalists having a strict preference for privately provided goods over publicly provided goods. It is straightforward but algebraically tedious to extend the analysis to the case in which the preferences for capitalists are also affected by the level of G_i . We assume that the function v_i is twice differentiable, increasing and concave, i.e., $v_i' > 0$; $v_i'' < 0$.

3.2 Economic Equilibrium For Given Taxes

Given taxes τ_i^K and τ_i^L for all i , equilibrium in the world economy entails (i) consumers and firms optimizing worldwide, (ii) goods and factor markets clearing, and (iii) each government running a balanced budget. In this static model, consumers in i spend all of their income on the consumption good Y_i , so their optimization immediately implies good-market clearing, and C_i^s for each group $s = k, \ell$ is equal to the joint income of that group.

Firms hire capital and labor up to the point at which the marginal product of these factors equals their marginal cost. This implies that the remuneration per unit of capital is

¹⁷We treat these endowments as given, but they could be microfounded in an overlapping generations model, in which ‘the young’ work and save, and ‘the old’ consume out of their savings.

given by

$$r_i = r = \frac{\partial F_i(K_i, \bar{L}_i)}{\partial K_i} - \tau_i^K, \text{ for all } i = 1, \dots, N, \quad (2)$$

where, by setting $r_i = r$ for all i , we already impose perfect international capital mobility.

The remuneration per unit of labor net of taxes is in turn given by

$$w_i = \frac{F_i(K_i, \bar{L}_i)}{\bar{L}_i} - (r + \tau_i) \frac{K_i}{\bar{L}_i} - \tau_i^L, \text{ for all } i = 1, \dots, N. \quad (3)$$

Notice that in equations (2) and (3), we already impose labor-market clearing (by setting $L_i = \bar{L}_i$), but in equation (2), we allow for $K_i \neq \bar{K}_i$, so that a country may import or export capital. At the global level, capital-market clearing imposes:

$$\sum_{j=1}^N K_j = \sum_{j=1}^N \bar{K}_j. \quad (4)$$

Government budget balance finally imposes

$$G_i = \tau_i^K K_i + \tau_i^L \bar{L}_i.$$

The only equilibrium objects are the global return to capital r , the vector of wages $\mathbf{w} = (w_1, \dots, w_N)$, and the vector of capital stocks $\mathbf{K} = (K_1, \dots, K_N)$, and they can all be solved from equations (2), (3), and (4). With these equilibrium objects at hand, and noting $Y_i^k = r\bar{K}_i$ and $Y_i^\ell = w_i\bar{L}_i$, we can compute aggregate welfare for workers as

$$U_i^\ell = F(K_i, \bar{L}_i) - (r + \tau_i^K) K_i - \tau_i^L \bar{L}_i + v_i(G_i), \quad (5)$$

and for capitalists as

$$U_i^k = r\bar{K}_i. \quad (6)$$

3.3 Effects of Taxes

We next study how changes in labor and capital taxes affect the equilibrium of the model. Notice that equations (2) and (4) uniquely pin down the allocation of capital across countries as well as the worldwide return to capital. As a result, these equilibrium objects are independent of labor taxes τ_i^L . An increase in labor taxes only raises the provision of public goods G_i in country i at the cost of reducing the remuneration of labor. Intuitively, labor is supplied inelastically, while capital is supplied elastically, so labor bears the full

incidence of taxes levied on it.

Conversely, the effects of capital taxes are much richer. Totally differentiating equations (2) and (4), it is straightforward to verify that:

Proposition 1. *When a country i raises its tax τ_i^K on capital, it (i) depresses the global return to capital r , (ii) decreases the capital stock K_i in country i , and (iii) increases the capital stock K_j in all other countries $j \neq i$.*

Proof. See Appendix A.1.

This proposition summarizes the nature of cross-border policy externalities in our framework. A higher capital tax in any (non-negligible) country decreases the world return to capital, while also leading to capital outflows from the country increasing the tax to all other countries in the world. In other words, in this model any attempt to have capitalists contribute to funding public goods is met with capital flight towards lower-tax jurisdictions. This tax-induced capital reallocation, however, reduces returns to capital worldwide.

4 Political Economy: Optimal Policies and Ideology

Having described our economic environment, we now turn to policy determination in the presence of political economy constraints. For the time being, we focus on the choices of an incumbent government that is not constrained by any electoral promises and that is not subject to foreign influence forces. We shall relax these assumptions below.

We will solve for optimal tax policy by an incumbent government that sets taxes on capital and labor to maximize a weighted sum of capitalists' and workers' welfare. We take this as a reduced form of a political process in which policy makers might put a different weight on different agents in society. We will be much more explicit about this political game in section 6.

In particular, suppose that τ_i^L and τ_i^K are chosen to maximize $W_i(\beta_i) = U_i^\ell + \beta_i U_i^k$ or

$$W_i(\beta_i) = F(K_i, \bar{L}_i) - (r + \tau_i^K) K_i - \tau_i^L \bar{L}_i + v(\tau_i^K K_i + \tau_i^L \bar{L}_i) + \beta_i r \bar{K}_i. \quad (7)$$

We shall denote a government with a high weight β_i as being *pro-capital* and a government with a low weight β_i as being *pro-labor*.

Our first result is that the level of provision of public goods is independent of the political bias β_i . In particular, because r and \bar{K}_i are independent of τ_i^L , the first-order-condition for

the choice of τ_i^L is given by

$$\frac{dW_i(\beta_i)}{d\tau_i^L} = -\bar{L}_i + v'(G_i)\bar{L}_i = 0, \quad (8)$$

which implies

$$v'(G_i^*) = 1. \quad (9)$$

Because labor is supplied inelastically, labor taxes are non-distortionary, so governments of all ideologies set them at a level that ensures that public good provision is efficient. The resulting level of public good provision G_i^* is identical to the one that would be set by a utilitarian social planner absent capital mobility.¹⁸

Proposition 2. *The public good G_i is provided at the same level regardless of the political bias β_i of the incumbent government.*

By allowing governments to tax labor we shut down the main concern in the ‘race to the bottom’ literature, as governments in our model are always able to finance G_i . This result does not imply, however, that *how* G_i is financed is independent of the preferences of the policy maker. To see this, consider the first-order condition associated with the choice of τ_i^K . Invoking equations (2) and (9), we find

$$\frac{dW_i(\beta_i)}{d\tau_i^K} = \tau_i^K \frac{dK_i}{d\tau_i^K} + \frac{dr}{d\tau_i^K} (\beta_i \bar{K}_i - K_i) \leq 0; \quad \tau_i^K \geq 0, \quad (10)$$

with complementarity slackness. We have established in Proposition 1 that $dK_i/d\tau_i^K < 0$, so the first term in (10) cannot possibly be positive. Because, by the same Proposition 1, $dr/d\tau_i^K < 0$, the sign of the second term in (10) crucially depends on the relative magnitude of $\beta_i \bar{K}_i$ and K_i . Let us consider each of the two possible scenarios.

First, if $\beta_i \bar{K}_i > K_i$, we necessarily have that $dW_i(\beta_i)/d\tau_i^K < 0$ for any τ_i^K , and thus the optimal tax on capital is 0. Countries with a high initial capital endowment are more likely to opt for zero capital taxation, but notice that such a policy may also be optimal for pro-capital governments in capital-scarce countries. In fact, we have that:

¹⁸Without capital mobility and with $\beta_i = 1$, we have

$$U_i^L + U_i^K = F(\bar{K}_i, \bar{L}_i) - \tau_i^K \bar{K}_i - \tau_i^L \bar{L}_i + v_i(\tau_i^L \bar{L}_i + \tau_i^K \bar{K}_i),$$

and thus both the choice of τ_i^L or τ_i^K ensure that $v'(G_i^*) = 1$. In that case, the utilitarian planner sees capital and labor taxes as perfect substitutes because, without capital mobility, capital is as inelastically supplied as labor.

Proposition 3. *Regardless of its endowments, a sufficiently pro-capital government will necessarily set a zero tax on capital $\tau_i^K = 0$ and a labor tax satisfying $v'(\tau_i^L \bar{L}_i) = 1$.*

Proof. This amounts to showing that, for any \bar{K}_i , there always exists a threshold β_i^* such that $\beta_i \bar{K}_i > K_i$ for $\beta_i > \beta_i^*$. But $K_i < \sum_{j=1}^N \bar{K}_j$, so $\beta_i^* = (\sum_{j=1}^N \bar{K}_j) / \bar{K}_i$ is one such threshold.

Although a capital-importing country's utilitarian welfare (i.e., $W_i(\beta_i)$ for $\beta_i = 1$) would increase with a positive capital tax (see Hamada, 1966), this would come at the cost of lower welfare for capitalists, and thus a sufficiently pro-capital government abstains from taxing capital at all even when its country imports some capital.

In the second case in which $\beta_i \bar{K}_i < K_i$, the second term in (10) is necessarily positive and the optimal tax on capital becomes positive and given by

$$\tau_i^K = \frac{1}{\sum_{j \neq i} \frac{1}{-F_j^{KK}}} (K_i - \beta_i \bar{K}_i). \quad (11)$$

From this expression, it is then immediate to see that:

Proposition 4. *Regardless of its endowments, a sufficiently pro-labor government will necessarily set a positive capital tax given by (11) and a labor tax satisfying $v'(\tau_i^K K_i + \tau_i^L \bar{L}_i) = 1$.*

Proof. For $\beta_i \rightarrow 0$, $K_i > \beta_i \bar{K}_i$, and thus τ_i^K in (11) is necessarily positive.

A pro-labor government is particularly concerned with the welfare of workers, and thus is willing to use a positive capital tax as a redistributive tool even in circumstances (i.e., when the country exports capital) in which a utilitarian planner would choose a zero capital tax.¹⁹

Although Propositions 3 and 4 have focused on the polar cases of a very high or a very low β_i , it is straightforward to see from equation (11) that whenever the capital tax τ_i^K is positive and unique, its level is monotonically decreasing in the capital bias β_i (see Appendix A.1).

5 Cross-Border Externalities of Taxes

To build the ground work for our analysis of foreign influence, we next study how the choices of capital and labor taxes in a given country (which we denote by *Home* and associate

¹⁹The uniqueness of this optimal capital tax can be established by placing additional assumptions on the third derivative of the production function $F_i(K_i, \bar{L}_i)$ (see Appendix A.1).

with H subscripts) affect (policy-relevant) welfare in another country (which we denote by Foreign and associate with F subscripts). We are particularly interested in analyzing how the sign of this effect is affected by the political preferences of this Foreign country. We begin the analysis with the general welfare function in (7), and we will later study particular cases.

A first straightforward observation is that labor taxes at Home generate *no externalities* in other countries because, as argued above, they have no bearing on the equilibrium return to capital or on the allocation of capital across countries.

Turning to the cross-border effects of capital taxes, we first note that totally differentiating equation (7), we obtain:

$$\frac{dW_F(\beta_F)}{d\tau_H^K} = \tau_F^K \frac{dK_F}{d\tau_H^K} + \frac{dr}{d\tau_H^K} (\beta_F \bar{K}_F - K_F). \quad (12)$$

There are two effects at play in this equation, which jointly determine the overall sign of $dW_F(\beta_F)/d\tau_H^K$. First, an increase in the home capital tax τ_H^K shifts capital toward the Foreign country ($dK_F/d\tau_H^K > 0$ as shown in Proposition 1), and this increases the tax base in Foreign, thus enhancing the provision of public goods: this is the first term in the first-order-condition in (12) and it is necessarily non-negative. In words, if the Foreign country is taxing capital, it welcomes an inflow of capital caused by high capital taxes at Home. The second effect works through the impact of the increase in τ_H^K on the world return to capital r . The increase in τ_H^K necessarily lowers r (see Proposition 1) but whether that is beneficial or detrimental to the Foreign country depends on (i) whether Foreign imports or exports capital, and (ii) whether Foreign's policy-relevant welfare function is biased toward capital or labor (i.e., how high is β_F).

Remember from Proposition 3 that when β_F is sufficiently high, $\tau_F^K = 0$, and the first term vanishes, while at the same time, the second term necessarily becomes negative when β_F is high. Thus $dW_F(\beta_F)/d\tau_H^K$ is necessarily negative for a sufficiently pro-capital government in Foreign. Intuitively, a pro-capital government does not tax capital, so attracting a higher tax base is irrelevant for the provision of public goods. Furthermore, such a government is particularly concerned with maximizing the return to capitalists, and hence it wants low capital taxes worldwide.

Conversely, when β_F is sufficiently low, by Proposition 4 we have that $\tau_F^K > 0$, while at the same time $\beta_F \bar{K}_F < K_F$. In such a case, $dW_F(\beta_F)/d\tau_H^K$ becomes a sum of two positive terms. Intuitively, a pro-labor government values the ability to tax capital, and thus will be concerned with relatively lower capital taxes at Home leading to capital flight from its country, thus eroding its tax base. Furthermore, low capital taxes at Home will also increase

the return to capital and will thus tilt the distribution of income against Foreign workers.

In sum, we have that:

Proposition 5. *An increase in another country’s capital tax reduces welfare as perceived by a sufficiently pro-capital government, while it increases welfare as perceived by a sufficiently pro-labor government.*

Naturally, whether the capital taxes set by these other countries (Home in our example above) are higher or lower is a function of the identity of the incumbent government in those other countries. Proposition 5 thus hints at the existence of an incentive for governments to ‘export’ their ideology. Pro-capital governments want other governments to also be pro-capital and set low capital taxes, while pro-labor governments want other governments to also be pro-labor and set high capital taxes.

6 Political Equilibrium with No Foreign Influence

So far, we have only shown that policies that affect the distribution of income between capital and labor generate cross-border externalities that make countries benefit from other countries sharing their pro-capital or pro-labor bias. In section 7, we will study more explicitly how these forces generate an incentive to export ideology, and how foreign influence activities shape policies worldwide, but before doing so, in this section we introduce our political game for the baseline case *without* foreign influence.

6.1 Political Structure and Voter Preferences

For that purpose, we build on a simplified version of the probabilistic voting model of foreign influence in [Antràs and Padró i Miquel \(2011\)](#).²⁰ There is an election coming up in one of the countries, denoted by *Home*, the outcome of which is uncertain. Two parties run in that election: a Home pro-capital party (denoted with the subscript \mathcal{R}) and a Home pro-labor party (denoted with the subscript \mathcal{L}). Although parties may announce certain policies in the run-up to the election, voters understand that parties will ex-post set these policies at the level that maximizes their welfare given their ideology. We thus follow [Alesina \(1988\)](#) in assuming that electoral candidates cannot credibly commit to policies before they are elected. Voters anticipate that if the pro-capital party wins the election, it will set capital

²⁰See [Persson and Tabellini \(2000\)](#) for a textbook treatment of the [Lindbeck and Weibull \(1987\)](#) classic framework.

and labor taxes equal to $\tau_{H\mathcal{R}}^K$ and $\tau_{H\mathcal{R}}^L$ to maximize $W_H(\beta_{H\mathcal{R}})$ in equation (7), with that pro-capital party being associated with a relatively high value $\beta_{H\mathcal{R}}$ of β_H . Conversely, if the pro-labor party wins the election, it will implement capital and labor taxes equal to $\tau_{H\mathcal{L}}^K$ and $\tau_{H\mathcal{L}}^L$ to maximize $W_H(\beta_{H\mathcal{L}})$, with that party featuring a relatively low value $\beta_{H\mathcal{L}}$ of β_H .

The Home country is populated by a unit measure of individuals, a fraction κ of which are ‘capitalists’ (denoted with k subscripts), and the remaining fraction $1 - \kappa$ are workers (denoted with ℓ subscripts). If candidate $c \in \{\mathcal{R}, \mathcal{L}\}$ wins the Home election, capitalists and workers obtains a welfare level

$$U_{Hc}^s = \begin{cases} w_H(\tau_{Hc}^K, \tau_{Hc}^L) \bar{L}_H + v_H(G_{Hc}) + \sigma_{Hc}^k & \text{if } s = k \\ r(\tau_{Hc}^K) \bar{K}_H + \sigma_{Hc}^\ell & \text{if } s = \ell \end{cases} . \quad (13)$$

This expression is identical to (1) – after plugging in (5) and (6) – except for the fact that we now allow taxes to be a function of the winning party, and for the new term σ_{Hc}^s for $s = \{k, \ell\}$. This term reflects the standard assumption in probabilistic voting models, that from the point of view of voters, the different candidates also differ in other dimensions that are independent of their policy proposals. In particular, voters care about characteristics such as competence, honesty or simply personal appeal and charisma. The term σ_{Hc}^s captures the additional utility due to these attributes that capitalists ($s = k$) and workers ($s = \ell$) enjoy at Home (or expect to enjoy at the time of casting the ballot, since σ_{Hc}^s contains many uncertain and subjective components) when party c is in power. We define by $\sigma_H^s \equiv \sigma_{H\mathcal{R}}^s - \sigma_{H\mathcal{L}}^s$ the bias due to non-policy dimensions that Home capitalists ($s = k$) and Home workers ($s = \ell$) have in favor of party \mathcal{R} at the time of casting the ballot.

Since perceptions can be affected both by deterministic and random elements, we model these biases as

$$\sigma_H^s = \rho_H + \xi_H^s \quad \text{for } s = \{k, \ell\},$$

where ρ_H is the deterministic part of the bias and where ξ_H^s is distributed uniformly in the interval $[-\frac{1}{2\gamma_H^s}, \frac{1}{2\gamma_H^s}]$.²¹ The higher is γ_H^s , the lower is the variance of the idiosyncratic shocks for group $s = \{k, \ell\}$, and the more will preferences be shaped by the impact of policies on welfare as well as by the deterministic part of the bias. Given the zero mean of ξ_H^s , the expected value of the difference $\sigma_{H\mathcal{R}}^s - \sigma_{H\mathcal{L}}^s$ is simply equal to ρ_H , and thus ρ_H is the *expected* pro-capital bias at Home. Note that ρ_H can take positive or negative values, and that we assume that this pro-capital bias is the same for capitalists and workers. Perhaps a more natural assumption would have been to let this bias be higher for capitalists than for

²¹In assuming a uniform distribution, we follow the bulk of the probabilistic voting literature. This distributional assumption ensures the existence of an equilibrium and considerably simplifies the analysis.

workers, but this is not necessary for our results, and having a common ρ_H simplifies the derivations below.

To summarize, the timing of events in the model is as follows:

- ($t = 1$) The Home pro-capital and pro-labor parties announce a policy platform $(\tau_{Hc}^K, \tau_{Hc}^L)$ for $c = \mathcal{R}, \mathcal{L}$.
- ($t = 2$) The values of ξ_H^K and ξ_H^L are realized.
- ($t = 3$) Elections occur.
- ($t = 4$) Regardless of any electoral promises, the winning party implements a pair of policies to maximize $W_H(\beta_{Hc})$ in equation (7) where $\beta_{HR} > \beta_{HL}$.

6.2 Political Equilibrium

Notice that given the lack of commitment associated with electoral announcements, the only policies that can be credibly announced at stage $t = 1$ are those implemented at stage $t = 4$, which we have characterized above in section 4. From Proposition 2, we know that both parties will set a common level of public good provision, and thus $v_H(G_{HR}) = v_H(G_{HL})$. Furthermore, from Proposition 3, if the pro-capital party is sufficiently pro-capital, it will necessarily set $\tau_{HR}^K = 0$, while from Proposition 4, if the pro-labor party is sufficiently pro-labor, it will necessarily set $\tau_{HL}^K > 0$.

Anticipating these policies, voters will vote for the party that offers them a higher welfare level, considering both the implications of these policies for their real income, as well as their non-policy idiosyncratic preferences. As we show in Appendix A.2, we can summarize the electoral outcome as follows:

Proposition 6. *The pro-capital party will win the Home election with probability*

$$\mathbb{P}_{HR} = \frac{1}{2} + \Delta_H^u + \chi_H \rho_H, \quad (14)$$

and the pro-labor capital will win with the complementary probability $1 - \mathbb{P}_{HR}$, where ρ_H is the expected pro-capital bias at Home, and where Δ_H^u and χ_H are given by

$$\Delta_H^u \equiv \kappa \gamma_H^K \left(r \left(\tau_{HR}^K \right) - r \left(\tau_{HL}^K \right) \right) \bar{K}_H + (1 - \kappa) \gamma_H^L \left(w_H \left(\tau_{HR}^K, \tau_{HR}^L \right) - w_H \left(\tau_{HL}^K, \tau_{HL}^L \right) \right) \bar{L}_H$$

and

$$\chi_H \equiv \kappa \gamma_H^K + (1 - \kappa) \gamma_H^L,$$

respectively.

Proof. See Appendix A.2.

This Proposition summarizes how the electoral outcome depends on voters' perceptions of how the two parties' policies affect their welfare (as captured by the term Δ_H^u), as well as on the non-policy preferences of voters for the pro-capital or pro-labor party (as reflected by the term $\chi_H \rho_H$). The first term Δ_H^u combines the positive effect of \mathcal{R} being elected on the return to capital $r(\tau_{H\mathcal{R}}^K) > r(\tau_{H\mathcal{L}}^K)$ and its negative impact on wages $w_H(\tau_{H\mathcal{R}}^K) < w_H(\tau_{H\mathcal{L}}^K)$.²² The balance of these two effects is in turn shaped by the share κ of capitalists in the population, as well as the relative sensitivity of capitalists and workers to policy-related welfare, as captured by the relative value of γ_H^K and γ_H^L . These same parameters also shape the impact of the deterministic pro-capital bias of voters on the electoral outcome, as captured in the definition of χ_H .

7 Exporting Ideology

As discussed in section 5, the outcome of the election in the Home country is relevant to other countries because capital taxes at Home generate externalities on other countries. We now allow the incumbent of one of these other countries, referred to as *Foreign*, to take actions that aim at manipulating electoral results at Home. These costly actions can range from the dissemination of messages aimed at discrediting or extolling one of the two parties, to the provision of funds and logistical help to the pro-capital or pro-labor parties or the application of diplomatic pressure on the incumbent. Following [Antràs and Padró i Miquel \(2011\)](#), we assume that these costly actions affect the opinion that voters have of their candidates in the foreign country, as captured by the non-policy pro-capital bias ρ_H .²³ To link ρ_H to the actions of the Foreign government in the simplest possible way, we let $\rho_H = e_F$, and assume that exerting an effort level e_F to influence the Home election entails a cost $\frac{1}{2\phi_F} (e_F)^2$, where a low value of ϕ_F reflects that Foreign is relatively inefficient at inflicting international pressure. Note that we let e_F take either positive or negative values, so foreign influence can be aimed at endorsing or discrediting the pro-capital party at Home.

²²Note that $\tau_{H\mathcal{R}}^K < \tau_{H\mathcal{L}}^K$ implies $r(\tau_{H\mathcal{R}}^K) > r(\tau_{H\mathcal{L}}^K)$. Furthermore, the capital tax set by a lower β_H party (i.e., the Left), is closer to the capital tax that maximizes wages, with the latter corresponding to the case $\beta_H \rightarrow 0$. Thus, $w(\tau_{H\mathcal{R}}^K) < w(\tau_{H\mathcal{L}}^K)$.

²³Our approach in [Antràs and Padró i Miquel \(2011\)](#) built in turn on the work on special interest groups by [Baron \(1994\)](#) and [Grossman and Helpman \(1996\)](#). Relative to those papers, we assume that the value of ρ_H can be affected by foreign governments as opposed to domestic lobbies.

The timing of events of this expanded game with foreign influence is identical to the one without foreign influence except that we now introduce a period $t = 1.5$ – after the parties announce their policies but before ξ_H^k and ξ_H^ℓ are realized – in which the incumbent party in Foreign decides how much effort e_F to exert with the goal of affecting the electoral outcome at Home. Because the two parties at Home cannot commit to policies during the electoral campaign, foreign influence can only shape *who* gets elected rather than which policies are ex-post implemented. We will relax this assumption in section 8.3 and study a variant of the model with commitment, which generates richer effects of foreign influence.

With these assumptions, the Foreign incumbent will choose a foreign influence level e_H that maximizes its expected welfare inclusive of effort costs, which is given by

$$\tilde{W}_F(\beta_F) = \left(\frac{1}{2} + \Delta_H^u + \chi_H e_F\right) W_F(\beta_F; \tau_{HR}^K) + \left(\frac{1}{2} - \Delta_H^u - \chi_H e_F\right) W_F(\beta_F; \tau_{HL}^K) - \frac{1}{2\phi_F} (e_F)^2, \quad (15)$$

where $W_F(\beta_F; \tau_{HR}^K)$ and $W_F(\beta_F; \tau_{HL}^K)$ are evaluated according to expression (7), and where $(1/2)(e_F)^2/\phi_F$ is the cost of exerting foreign influence.

Given our assumption on the lack of commitment regarding tax choices, foreign influence has no direct impact on the ex-post implemented policies τ_{HR}^K and τ_{HL}^K at Home. Furthermore, although the Foreign tax choice τ_F^K of the incumbent government affects the size of Δ_H^u , the same lack of commitment implies that Home voters understand that τ_F^K will eventually be set to maximize Foreign welfare, regardless of any announcements made by the Foreign government in the run-up of the Home election. Thus, foreign policy announcements are powerless in influencing the Home election, and therefore e_F is the *only* foreign influence lever available to the Foreign incumbent.

Straightforward differentiation of equation (15) indicates that the optimal influence effort of the Foreign country is given by

$$e_F = \chi_H \phi_F \left[W_F(\beta_F; \tau_{HR}^K) - W_F(\beta_F; \tau_{HL}^K) \right]. \quad (16)$$

If the Foreign incumbent perceives a higher welfare when the right wins the election at Home, it will try to influence that foreign election such that the right wins (or $e_F > 0$). Conversely, if the Foreign incumbent perceives a higher welfare when the left wins in j , e_H will instead be set at a negative value, so Foreign will try to influence Home's election in favor of the left. The specific level of exerted influence is also shaped by the sensitivity of Home voters to such an influence (as captured by χ_H) and by the technology of Foreign in that activity (as reflected in ϕ_F).

Crucially, whether the Foreign incumbent perceives a higher welfare when the pro-capital

party wins the election at Home depends on its own ideological orientation. As shown in Proposition 5, if the Foreign incumbent is sufficiently pro-capital, it will certainly prefer that the pro-capital party wins the Home election, as this will result in lower capital taxes at Home. More formally, we have $W_F(\beta_F; \tau_{HR}^K) > W_F(\beta_F; \tau_{HL}^K)$ for a sufficiently high β_F . As a result, a sufficiently pro-capital Foreign government will have an incentive to carry out foreign influence to attempt to ‘export’ its ideology and enhance the chances that the Home government also ends up being ruled by a pro-capital party.

Conversely, if the Foreign incumbent is sufficiently pro-labor, Proposition 5 instead indicates that if the pro-capital party wins the Home election, Foreign welfare as perceived by the Foreign incumbent will go down (or $W_F(\beta_F; \tau_{HR}^K) < W_F(\beta_F; \tau_{HL}^K)$ for a sufficiently low β_F). Thus, a sufficiently pro-labor Foreign government will also have an incentive to ‘export’ its ideology abroad to try to increase the likelihood that the Home government also ends up being ruled by a pro-labor party.

We summarize this discussion as follows:

Proposition 7. *A sufficiently pro-capital incumbent in a Foreign country will take actions to increase the likelihood that an election at Home is won by a pro-capital party, while a sufficiently pro-labor Foreign incumbent will instead take actions to increase the likelihood that the election at Home is won by a pro-labor party.*

8 Extensions

In our baseline model, we have focused attention to instances of unilateral foreign influence involving a single election. In addition, the only role of foreign influence in the model was to affect which party gets elected rather than the winning party’s policies. In this section, we develop three extensions of our framework to illustrate the wider applicability of our insights, and to derive novel ones. To save on space, we describe our main results informally and relegate the mathematical details to the Appendix.

8.1 Multilateral Influence

A first straightforward extension involves considering the case in which multiple countries seek to affect the electoral outcome in the Home country. Using subscripts j to denote all $N - 1$ countries other than Home, we denote by e_j the foreign influence effort carried out by country j in trying to shape the election at Home. We assume that these costly actions again affect the non-policy preferences of voters, and specify the non-policy pro-capital bias

ρ_H as:

$$\rho_H = \sum_{j \neq H} \mu_j e_j.$$

A higher value of μ_j denotes a higher efficacy of country j in exerting influence, and has a similar interpretation as the parameter ϕ_j in the cost of exerting effort, which we continue to specify as $(1/2)(e_j)^2/\phi_j$.

The equilibrium of this multilateral game of foreign influence is analogous to that in our baseline model, so following the same steps as in section 7, each country j will exert an effort level equal to

$$e_j = \chi_H \mu_j \phi_j \left[W_j(\beta_j; \tau_{HR}^K) - W_j(\beta_j; \tau_{HL}^K) \right]. \quad (17)$$

In line with Proposition 7, sufficiently pro-capital foreign governments will take actions to increase the likelihood that an election at Home is won by a pro-capital party, while sufficiently pro-labor foreign incumbents will take actions to increase the likelihood that the election at Home is won by a pro-labor party.

This extension illustrates that the incentive to exert foreign influence will be different across countries, depending on their ‘technology’ of influence (as captured by the parameters μ_j and ϕ_j). Countries with lower costs or higher efficacy in influencing will naturally exert more influence. Furthermore, all countries will exert more influence whenever voters in the Home country are more impressionable, as captured by χ_H . Also quite naturally, equation (17) indicates that the level of foreign influence by country j will depend on the extent to which policies at Home generate externalities in country j , as reflected by the term $W_j(\beta_j; \tau_{HR}^K) - W_j(\beta_j; \tau_{HL}^K)$. This difference is in turn shaped by the various fundamentals of the model. In particular, note that the difference $W_j(\beta_j; \tau_{HR}^K) - W_j(\beta_j; \tau_{HL}^K)$ will be shaped by the degree of ideological polarization at Home, as such polarization will be associated with a bigger gap between τ_{HL}^K and τ_{HR}^K . Finally, we note that the magnitude of the pro-capital or pro-labor bias of the incumbent in country j should matter for the level of e_j . Disproportionately biased incumbents in j will, other things equal, be more likely to exert high levels of foreign influence, as the gap $W_j(\beta_j; \tau_{HR}^K) - W_j(\beta_j; \tau_{HL}^K)$ is disproportionately high in absolute value for very high and very low values of β_j . When β_j is close to 0, the desired capital tax for Home is 0 so a high capital tax at Home (i.e., τ_{HL}^K) will be particularly costly, while when $\beta_j \rightarrow \infty$, a low capital tax at Home (i.e., τ_{HR}^K) will also be particularly welfare-reducing.

Given these results, we can also conclude from our model that the probability of a pro-capital party winning an election at Home is positively affected by the share of pro-capital

incumbents around the world. We will draw some implications of this complementarity in the next section.

8.2 Staggered Elections

We next consider the case in which elections occur in more than one country. For simplicity, we begin by considering a two-country model with a Home and a Foreign country, in which elections in a given country occur every T (e.g., 4) years. Home and Foreign elections are scheduled in a staggered manner, so there is an election worldwide every $T/2$ years. Although the game is repeated indefinitely, politicians are only active for a maximum of two terms (e.g., $2T$ years), so they care at most about the outcome of two elections in their country. For simplicity, we assume that politicians do not discount the future while in office.

At any point in time, there are two types of incumbents at Home and in Foreign: first-term incumbents and second-term incumbents. Behavior of second-term incumbents is identical to that discussed in our baseline model. They implement their preferred policies and also seek to influence the election in the other country in a manner captured by the foreign influence equation (16). Although that equation relates to the efforts of a second-term incumbent in Foreign, a completely analogous equation applies for second-term Home incumbents.

As in our baseline model, first-term incumbents also implement their preferred capital taxes, but their choice of foreign influence is now distinct than that of second-term incumbents. These incumbents not only benefit from the policies put in place by foreign elected governments with their same ideology, but they also internalize the fact that in influencing elections in other countries, they also (probabilistically) affect the identity of the foreign incumbents that may be trying to influence their own future reelection. For instance, a pro-capital Foreign incumbent may not only want to help a Home pro-capital party get elected to benefit from the lower capital taxes this Home government would set, but also because they anticipate that a Home pro-capital incumbent will be more likely in the future to help the pro-capital Foreign government to get reelected in future elections in Foreign.

Although demonstrating this result is straightforward, the formal details are cumbersome, so we relegate them to Appendix A.3. We summarize this as follows:

Proposition 8. *Sufficiently biased foreign incumbents have an incentive to take actions to increase the likelihood that the election at Home is won by a party sharing their ideology. First-term Foreign incumbents exert disproportionately higher influence because they realize that an ideologically aligned Home incumbent will exert positive effort in getting that Foreign incumbent reelected in the future.*

Proof. See Appendix A.2.

Although this falls outside the scope of this paper, we hypothesize that an analysis of a full-fledged multi-country environment with staggered elections is likely to generate rich dynamics, with governments being concerned about the “balance of power” between pro-capital and pro-labor governments in world politics. More specifically, our model suggests that the higher the share of countries governed by pro-labor (pro-capital) parties, the more likely it will be that future governments in other countries are also pro-labor (resp. pro-capital), which in turn increases the share of future countries that are governed by pro-labor (resp. pro-capital) governments. Consequently, if pro-capital or pro-labor governments happen to have a better ‘technology of influence’ their ideology could quickly become dominant in world politics.

8.3 Commitment

We finally relax our assumption that parties cannot credibly commit to their electoral promises. In particular, we study the diametrically opposite case in which they can fully commit to their announced capital taxes. For simplicity, we revert back to a scenario of unilateral influence, in which only a Foreign incumbent influences the outcome of an upcoming election at Home. The fact that parties are bound by their electoral promises changes the incentives of the Foreign incumbent to exert foreign influence because it is no longer the case that the only manner in which the choice of capital taxes at Home can be altered is by impacting the identity of the Home election. More specifically, the Home parties electoral platform announcement are relevant for the election prospects (given that voters understand that the announced policies will indeed be implemented), so the Foreign incumbent can now exert foreign influence efforts in a manner contingent on those announcements.

The analysis of the political game with commitment is significantly more involved than in our baseline case without commitment, but in Appendix A.4 we demonstrate the following result:

Proposition 9. *A sufficiently pro-capital (respectively, pro-labor) incumbent in a Foreign country will take actions to increase the likelihood that an election at Home is won by a pro-capital (resp. pro-labor) party. Regardless of the outcome of the Home election, when the Foreign incumbent is sufficiently pro-capital (respectively, pro-labor), the Home parties will announce capital taxes that are weakly lower (resp. higher) than those they would announce in the absence of foreign influence.*

Proof. See Appendix A.4.

The first statement of the proposition demonstrates that our ‘exporting ideology’ result in Proposition 7 is robust to assumptions regarding commitment to electoral ‘promises’. More specifically, foreign incumbents have an incentive to try to exert foreign influence in the ‘extensive margin’ in the sense of trying to boost the electoral prospects of a Home party with an aligned ideology. The second statement in Proposition 9 is novel to this extension of the model, and shows that, under commitment, foreign influence also operates through an ‘intensive margin’. If the foreign incumbent is a pro-capital party, both parties at Home announce capital taxes that are (weakly) *lower* than in the absence of foreign influence. The ‘tilt to the right’ by the pro-labor party occurs in order to reduce the size of the foreign intervention in support of their domestic pro-capital opponent. Conversely, if the foreign incumbent is a pro-labor party, both parties at Home announce capital taxes that are (weakly) *higher* than with no foreign influence. As we show in Appendix A.4, despite affecting the announced policies, foreign influence does not generally give rise to policy convergence, and thus foreign influence remains positive along the equilibrium path, as in our baseline model.

9 Conclusion

The realm of international politics is rife with instances of foreign influence aimed at shaping political outcomes in other countries. Furthermore, foreign influence is often ideological in nature, in the sense that countries typically try to promote and support foreign parties or candidates abroad that share their ideological beliefs or values. This paper presents an economic rationale for understanding the interplay between ideology, foreign influence, and policy choices. By employing a model of tax competition, our paper has first shed light on the preferences of pro-capital and pro-labor governments in setting capital and labor taxes based on their ideological leanings. We have shown that pro-capital governments favor lower capital taxes in their countries but also in foreign countries, while pro-labor governments prefer higher capital taxes both at home and abroad. When considering the foreign influence activities of governments, we have demonstrated that incumbents may strategically engage in foreign influence efforts to increase the likelihood of their ideologically aligned parties winning elections in foreign countries.

Understanding the mechanics of foreign influence, ideology, and policy choices is crucial in comprehending the complex landscape of international politics. By providing insights into the economic underpinnings of these interactions, this paper contributes to a deeper

understanding of how nations seek to promote their interests abroad and how ideological alignments shape policy outcomes.

Further research in this area could explore additional factors influencing foreign influence activities, such as cultural or historical ties, regional dynamics, or the role of non-state actors. Additionally, empirical studies can be conducted to validate the theoretical predictions and shed light on the real-world implications of foreign influence efforts on policy outcomes in different countries.

References

- Aidt, Toke S and Uk Hwang**, “To Ban or Not to Ban: Foreign Lobbying and Cross-National Externalities,” *Canadian Journal of Economics/Revue Canadienne d’Économique*, 2014, 47 (1), 272–297.
- , **Facundo Albornoz, and Esther Hauk**, “Foreign Influence and Domestic Policy,” *Journal of Economic Literature*, 2021, 59 (2), 426–87.
- Alesina, Alberto**, “Credibility and Policy Convergence in a Two-Party System with Rational Voters,” *American Economic Review*, 1988, 78 (4), 796–805.
- **and Dani Rodrik**, “Distributive Politics and Economic Growth,” *Quarterly Journal of Economics*, 1994, 109 (2), 465–490.
- **and David Dollar**, “Who Gives Foreign Aid to Whom and Why?,” *Journal of Economic Growth*, 2000, 5, 33–64.
- Antràs, Pol and Gerard Padró i Miquel**, “Foreign Influence and Welfare,” *Journal of International Economics*, 2011, 84 (2), 135–148.
- Baron, David P**, “Electoral Competition with Informed and Uninformed Voters,” *American Political Science Review*, 1994, 88 (1), 33–47.
- Berger, Daniel, William Easterly, Nathan Nunn, and Shanker Satyanath**, “Commercial Imperialism? Political Influence and Trade During the Cold War,” 2010. Working Paper.
- Brautigam, Deborah**, *The Dragon’s Gift: The Real Story of China in Africa*, Oxford University Press, 2011.
- Buera, Francisco J, Alexander Monge-Naranjo, and Giorgio E Primiceri**, “Learning the Wealth of Nations,” *Econometrica*, 2011, 79 (1), 1–45.
- de Mesquita, Bruce Bueno and Alastair Smith**, “Foreign Aid and Policy Concessions,” *Journal of Conflict Resolution*, 2007, 51 (2), 251–284.
- Dobbin, Frank, Beth Simmons, and Geoffrey Garrett**, “The Global Diffusion of Public Policies: Social Construction, Coercion, Competition, or Learning?,” *Annual Review of Sociology*, 2007, 33, 449–472.
- Dreher, Axel and Nathan Jensen**, “Independent Actor or Agent? An Empirical Analysis of the Impacts of US Interests on IMF Conditions,” *The Journal of Law and Economics*, 2007, 50 (1), 105–124.

- Dutt, Pushan and Devashish Mitra**, “Political Ideology and Endogenous Trade Policy: An Empirical Investigation,” *Review of Economics and Statistics*, 2005, 87 (1), 59–72.
- Frieden, Jeffrey A and Ronald Rogowski**, “The Impact of the International Economy on National Policies: An Analytical Overview,” *Internationalization and Domestic Politics*, 1996, 15 (1).
- Garnaut, John**, “How China Interferes in Australia and How Democracies Can Push Back,” *Foreign Affair Snapshot*, March 2018.
- Garrett, Geoffrey and Peter Lange**, “Internationalization, Institutions, and Political Change,” *International Organization*, 1995, 49 (4), 627–655.
- Gawande, Kishore, Pravin Krishna, and Michael J Robbins**, “Foreign Lobbies and US Trade Policy,” *Review of Economics and Statistics*, 2006, 88 (3), 563–571.
- Goldfajn, Ilan, Lorenza Martínez, and Rodrigo O Valdés**, “Washington Consensus in Latin America: From Raw Model to Straw Man,” *Journal of Economic Perspectives*, 2021, 35 (3), 109–132.
- Grossman, Gene M and Elhanan Helpman**, “Electoral Competition and Special Interest Politics,” *The Review of Economic Studies*, 1996, 63 (2), 265–286.
- Hamada, Koichi**, “Strategic Aspects of Taxation on Foreign Investment Income,” *Quarterly Journal of Economics*, 1966, 80 (3), 361–375.
- Hatfield, John W. and Gerard Padró i Miquel**, “A Political Economy Theory of Partial Decentralization,” *Journal of the European Economic Association*, 2012, 10 (3), 605–633.
- Hillman, Arye L and Heinrich Ursprung**, “Domestic Politics, Foreign Interests, and International Trade Policy,” *American Economic Review*, 1988, 78 (4), 729–745.
- Hirschman, Albert**, *National Power and the Structure of Foreign Trade*, University of California Press, 1945.
- Kinzer, Stephen**, *Overthrow: America’s Century of Regime Change from Hawaii to Iraq*, New York: Times Books, 2006.
- and **Stephen Schlesinger**, *Bitter Fruit: The Story of the American Coup in Guatemala*, Cambridge, MA: Harvard University Press, 1982.
- Lenin, Vladimir Ilich**, *Imperialism: The Highest Stage of Capitalism*, 1999 ed., Resistance Books, 1917.

- Lindbeck, Assar and Jörgen W Weibull**, “Balanced-Budget Redistribution as the Outcome of Political Competition,” *Public Choice*, 1987, 52, 273–297.
- Oates, Wallace E.**, *Fiscal Federalism*, New York: Harcourt Brace Jovanovich, 1972.
- Persson, T and G Tabellini**, *Political Economics: Explaining Economic Policy*, MIT Press, 2000.
- Putnam, Robert D**, “Diplomacy and Domestic Politics: the Logic of Two-Level Games,” *International Organization*, 1988, 42 (3), 427–460.
- Quinn, Dennis P and A Maria Toyoda**, “Ideology and Voter Preferences as Determinants of Financial Globalization,” *American Journal of Political Science*, 2007, 51 (2), 344–363.
- Rodrik, Dani**, “Goodbye Washington Consensus, Hello Washington Confusion? A Review of the World Bank’s Economic Growth in the 1990s: Learning from a Decade of Reform,” *Journal of Economic Literature*, 2006, 44 (4), 973–987.
- Simes, Dimitri K.**, “Losing Russia,” *Foreign Affairs*, 2007, 86 (6).
- Simmons, Beth A. and Zachary Elkins**, “The Globalization of Liberalization: Policy Diffusion in the International Political Economy,” *American Political Science Review*, 2004, 98 (1), 171–189.
- Vogel, David**, “Trading Up and Governing Across: Transnational Governance and Environmental Protection,” *Journal of European Public Policy*, 1997, 4 (4), 556–571.
- and **Robert A Kagan**, *Dynamics of Regulatory Change: How Globalization Affects National Regulatory Policies*, Vol. 1, Univ of California Press, 2004.
- Weiner, Tim**, *Legacy of Ashes: The History of the CIA*, New York: Doubleday, 2007.
- Wilson, John D.**, “A Theory of Interregional Tax Competition,” *Journal of Urban Economics*, 1986, 19 (3), 296–315.
- , “Tax Competition with Interregional Differences in Factor Endowments,” *Regional Science and Urban Economics*, 1991, 21 (3), 423–451.
- Wittman, Donald**, “Candidate Motivation: A Synthesis of Alternative Theories,” *American Political science review*, 1983, 77 (1), 142–157.
- Zodrow, George R. and Peter Mieszkowski**, “Pigou, Tiebout, Property Taxation, and the Underprovision of Local Public Goods,” *Journal of Urban Economics*, 1986, 19 (3), 356–370.

A Appendix

A.1 Proof of Proposition 1

In this Appendix, we study how changes in capital taxes affect the allocation of capital across countries, as well as the worldwide return to capital. We begin by totally differentiating equation (2) to find:

$$\frac{dr}{d\tau_i} = \frac{\partial^2 F_i(K_i, \bar{L}_i)}{\partial (K_i)^2} \frac{dK_i}{d\tau_i} - 1 \quad \text{for all } i = 1, \dots, N, \quad (\text{A.1})$$

and

$$\frac{dr}{d\tau_j} = \frac{\partial^2 F_i(K_i, \bar{L}_i)}{\partial (K_i)^2} \frac{dK_i}{d\tau_j} \quad \text{for } j \neq i. \quad (\text{A.2})$$

Totally differentiating the capital-market clearing condition (4) further implies

$$\sum_{j=1}^N \frac{dK_j}{d\tau_i} = 0,$$

which, using (A.1) and (A.2), can be written as

$$\frac{1}{\frac{\partial^2 F_i(K_i, \bar{L}_i)}{\partial (K_i)^2}} + \frac{dr}{d\tau_i} \sum_{j=i}^N \frac{1}{\frac{\partial^2 F_j(K_j, \bar{L}_j)}{\partial (K_j)^2}} = 0,$$

and thus

$$\frac{dr}{d\tau_i} = \frac{-1}{\frac{\partial^2 F_i(K_i, \bar{L}_i)}{\partial (K_i)^2} \sum_{j=1}^N \frac{1}{\frac{\partial^2 F_j(K_j, \bar{L}_j)}{\partial (K_j)^2}}} < 0. \quad (\text{A.3})$$

Plugging in (A.1), this in turn implies

$$\frac{dK_i}{d\tau_i} = \frac{\sum_{j \neq i}^N \frac{1}{\frac{\partial^2 F_j(K_j, \bar{L}_j)}{\partial (K_j)^2}}}{\frac{\partial^2 F_i(K_i, \bar{L}_i)}{\partial (K_i)^2} \sum_{j=1}^N \frac{1}{\frac{\partial^2 F_j(K_j, \bar{L}_j)}{\partial (K_j)^2}}} < 0 \quad (\text{A.4})$$

Finally, plugging in (A.2) into (A.3), we have

$$\frac{dK_i}{d\tau_j} = \frac{-1}{\frac{\partial^2 F_j(K_j, \bar{L}_j)}{\partial (K_j)^2} \frac{\partial^2 F_i(K_i, \bar{L}_i)}{\partial (K_i)^2} \sum_{i=1}^N \frac{1}{\frac{\partial^2 F_i(K_i, \bar{L}_i)}{\partial (K_i)^2}}} > 0. \quad (\text{A.5})$$

In sum, when a country i raises its tax τ_i^K on capital, it (i) depresses the global return to capital r , (ii) decreases the capital stock K_i in country i , and (iii) increases the capital stock K_j in all other countries $j \neq i$.

We note also that

$$\frac{dr/d\tau_i^K}{dK_i/d\tau_i^K} = \frac{1}{\sum_{j \neq i} \frac{1}{-\frac{\partial^2 F_j(K_j, \bar{L}_j)}{\partial (K_j)^2}}}.$$

Because $\partial^2 F_j(K_j, \bar{L}_j) / \partial (K_j)^2 < 0$, when τ_i^K rises and K_j rises for all $j \neq i$, the terms $\partial^2 F_j(K_j, \bar{L}_j) / \partial (K_j)^2$ increase or decrease depending on the third derivative of the production function $F_j(K_j, \bar{L}_j)$. When this third derivative is positive, as in the Cobb-Douglas case, τ_i^K rises and $(dr/d\tau_i^K) / (dK_i/d\tau_i^K)$ falls. This in turn implies that the optimal capital tax in equation (11), i.e.,

$$\tau_i^K = \frac{dr/d\tau_i^K}{dK_i/d\tau_i^K} (K_i - \beta_i \bar{K}_i),$$

is necessarily unique. To see this, note that we can express this expression as

$$K_i - \tau_i^K \frac{1}{\frac{dr/d\tau_i^K}{dK_i/d\tau_i^K}} = \beta_i \bar{K}_i,$$

where the left-hand side is monotonically decreasing in τ_i^K because (i) K_i decreases in τ_i^K , and (ii) $(dr/d\tau_i^K) / (dK_i/d\tau_i^K)$ also decreases in τ_i^K .

From this last expression it is also clear that the lower is β_i , the higher is the capital tax τ_i^K , as stated in the main text. A non-negative third derivative of the production function with respect to capital is sufficient for this result.

A.2 Proof of Proposition 6

Given their preferences in (13), and their anticipation of the policies that the pro-capital ‘right’ R and the pro-labor ‘left’ L would implement, Home capitalists vote for R whenever

$$\left(r(\tau_{HR}^K) - r(\tau_{HL}^K) \right) \bar{K}_H + \rho_H + \xi_H^s > 0.$$

Given the uniform distribution of ξ_H^s , this implies that the share P_{HR}^K of Home capitalists who vote for the pro-capital party is given

$$\mathbb{P}_{HR}^K = \frac{1}{2} + \gamma_H^K \left(\left(r(\tau_{HR}^K) - r(\tau_{HL}^K) \right) \bar{K}_H + \rho_H \right).$$

Similarly, a share $P_{H\mathcal{L}}^K$ of workers votes for the pro-capital party, where $P_{H\mathcal{L}}^K$ is given by

$$\mathbb{P}_{H\mathcal{L}}^K = \frac{1}{2} + \gamma_H^L \left(\left(w_H \left(\tau_{H\mathcal{R}}^K, \tau_{H\mathcal{R}}^L \right) - w_H \left(\tau_{H\mathcal{L}}^K, \tau_{H\mathcal{L}}^L \right) \right) \bar{L}_H + v_H (G_{Hc}) - v_H (G_{Hc}) + \rho_H \right).$$

As long as if γ_H^K and γ_H^L are small enough, these probabilities necessarily lie between 0 and 1. Allowing for corner solutions would be straightforward, though it would complicate the algebra while not generating additional insights.

The overall vote share of the right is then

$$\mathbb{P}_{H\mathcal{R}} = \kappa \mathcal{P}_{H\mathcal{R}}^K + (1 - \kappa) \mathcal{P}_{H\mathcal{R}}^L,$$

where remember that κ is the share of capitalists in the (voting) population.

Simple manipulations then show that

$$\begin{aligned} \mathbb{P}_{H\mathcal{R}} &= \frac{1}{2} + \kappa \gamma_H^K \left(r - r \left(\tau_{H\mathcal{L}}^K \right) \right) \bar{K}_H + (1 - \kappa) \gamma_H^L \left(w_H \left(\tau_{H\mathcal{R}}^K, \tau_{H\mathcal{R}}^L \right) - w_H \left(\tau_{H\mathcal{L}}^K, \tau_{H\mathcal{L}}^L \right) \right) \bar{L}_H \\ &\quad + \left(\kappa \gamma_H^K + (1 - \kappa) \gamma_H^L \right) \rho_H, \end{aligned}$$

which corresponds to the claim in Proposition 6.

A.3 Proof of Proposition 8

In this Appendix, we study the version of our model with staggered elections leading to Proposition 8.

As stated in the main text, at any point in time, there are two types of incumbents at Home and in Foreign: first-term incumbents and second-term incumbents. Behavior of second-term incumbents is identical to that discussed in our baseline model. Analogously to equation (16) in the main text, we have that Foreign and Home second-term incumbents set

$$e_{Fc} = \chi_H \phi_F \left[W_F \left(\beta_F; \tau_{H\mathcal{R}}^K, \tau_{Fc}^K \right) - W_H \left(\beta_H; \tau_{H\mathcal{R}}^K, \tau_{Fc}^K \right) \right],$$

and

$$e_{Hc} = \chi_F \phi_H \left[W_H \left(\beta_H; \tau_{Hc}^K, \tau_{F\mathcal{R}}^K \right) - W_H \left(\beta_H; \tau_{Hc}^K, \tau_{F\mathcal{L}}^K \right) \right].$$

Furthermore, given our assumption of a lack of commitment regarding tax choices, these second-term incumbents continue to implement their preferred capital taxes, as they cannot credibly commit to implementing alternative values that may benefit their aligned candidate in the other country's election.

As in our baseline model, and again due to the lack of commitment, first-term incumbents also always implement their preferred capital taxes, but their choice of foreign influence is now distinct than that of second-term incumbents. To see this, consider the expected welfare of a first-term

incumbent over its political horizon. Let us assume this first-time incumbent is a pro-capital party or politician. We can distinguish between four distinct periods in the lifetime of an elected politician: a first period right after being elected but before the first election in the other country; a second period right after the election abroad but before his or her domestic election; a third period right after being re-elected or after losing the reelection, but before a second election in the other country; and a fourth and last period right after the second election and until the end of his or her political life. For simplicity, we ignore discounting during that political lifetime.

In the first period, right after being elected, this incumbent enjoys a payoff equal $W_F(\beta_{FR}; \tau_{Hc}^K)$, where β_{FR} is its own pro-capital bias, and where τ_{Hc}^K is the capital tax implemented at Home, which depends on the bias of that incumbent party at Home.

In the second period, the Foreign incumbent is still in power, but its payoff depends on the outcome of the election at Home, so

$$\mathbb{P}_{HR}(e_{FR1}) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) + (1 - \mathbb{P}_{HR}(e_{FR1})) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) - \frac{1}{2\phi_F} (e_{FR1})^2.$$

After plugging in (14), this equation is analogous to equation (15) in the main text.

In the third period, the welfare of this pro-capital party is shaped by whether it wins its own election in that third period. Specifically, the Foreign incumbent realizes that its electoral prospects depends on the level of foreign influence put in place by the Home incumbent. Crucially, this level of Home influence is shaped by the pro-capital or pro-labor bias of the Home incumbent, which the Foreign incumbent tried to affect in the previous period. More formally, at the time of setting the foreign influence level e_{FR1} in period 2, the Foreign pro-capital incumbent expects a third period payoff equal to

$$\mathbb{P}_{HR}(e_{FR1}) \left[\mathbb{P}_{FR}(e_{HR}) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) + (1 - \mathbb{P}_{FR}(e_{HR})) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FL}^K) \right] \\ + (1 - \mathbb{P}_{HR}(e_{FR1})) \left[\mathbb{P}_{FR}(e_{HL}) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) + (1 - \mathbb{P}_{FR}(e_{HL})) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FL}^K) \right].$$

In its last period, the expected payoff at the time of setting e_{FR1} in period 2 is

$$\mathbb{P}_{HR}(e_{FR1}) \mathbb{P}_{FR}(e_{HR}) \times \\ \times \left[\mathbb{P}_{HR}(e_{FR2}) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) + (1 - \mathbb{P}_{HR}(e_{FR2})) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) - \frac{1}{2\phi_F} (e_{FR2})^2 \right] \\ + \mathbb{P}_{HR}(e_{FR1}) (1 - \mathbb{P}_{FR}(e_{HR})) \\ \times \left[\mathbb{P}_{HR}(e_{FL1}) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FL}^K) + (1 - \mathbb{P}_{HR}(e_{FL1})) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FL}^K) \right] \\ + (1 - \mathbb{P}_{HR}(e_{FR1})) \mathbb{P}_{FR}(e_{HL}) \times \\ \times \left[\mathbb{P}_{HR}(e_{FR2}) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) + (1 - \mathbb{P}_{HR}(e_{FR2})) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) - \frac{1}{2\phi_F} (e_{FR2})^2 \right] \\ + (1 - \mathbb{P}_{HR}(e_{FR1})) (1 - \mathbb{P}_{FR}(e_{HL})) \times \\ \times \left[\mathbb{P}_{HR}(e_{FL1}) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FL}^K) + (1 - \mathbb{P}_{HR}(e_{FL1})) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FL}^K) \right]$$

This Foreign expected welfare depends on who wins the second Home election, which is shaped by the second-term foreign influence effort e_{F2} . But note that e_{FR1} is still relevant for expected welfare because the Foreign pro-capital incumbent cares about whether he is an incumbent or not at that (which is shaped by e_{HR} or e_{HL} , which is in turn shaped by e_{FR1}).

Notice that this last payoff is the only one shaped by e_{FR2} , and that e_{FR2} is set to maximize

$$\mathbb{P}_{HR}(e_{FR2}) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) + (1 - \mathbb{P}_{HR}(e_{FR2})) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) - \frac{1}{2\phi_F} (e_{FR2})^2$$

so

$$\begin{aligned} e_{FR2} &= \phi_F \frac{\partial \mathbb{P}_{HR}(e_{FR2})}{\partial e_{FR2}} \left[W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) - W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) \right] \\ &= \phi_F \chi_H \left[W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) - W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) \right], \end{aligned}$$

where in the last line, we have used

$$\mathbb{P}_{HR}(e_{F2}) = \frac{1}{2} + \Delta_H^u + \chi_H e_{F2}.$$

This confirms our claim above that second-term incumbents set foreign influence at the same level as in our baseline model.

The choice of e_{FR1} is more complicated. The derivative of overall expected welfare (ignoring discounting) with respect to e_{FR1} is given by

$$\begin{aligned} & \frac{\partial \mathbb{P}_{HR}(e_{FR1})}{\partial e_{FR1}} \left[W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) - W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) \right] - \frac{e_{FR1}}{\phi_F} \\ & + \frac{\partial \mathbb{P}_{HR}(e_{FR1})}{\partial e_{FR1}} \left\{ \begin{aligned} & \mathbb{P}_{FR}(e_H) \left[W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) - W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) \right] \\ & + (1 - \mathbb{P}_{FR}(e_H)) \left[W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FL}^K) - W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FL}^K) \right] \end{aligned} \right\} \\ & + \frac{\partial \mathbb{P}_{HR}(e_{FR1})}{\partial e_{FR1}} (\mathbb{P}_{FR}(e_{HR}) - \mathbb{P}_{FR}(e_{HL})) \\ & \times \left[\begin{aligned} & \mathbb{P}_{HR}(e_{FR2}) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) + (1 - \mathbb{P}_{HR}(e_{FR2})) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) - \frac{1}{2\phi_F} (e_{FR2})^2 \\ & - \mathbb{P}_{HR}(e_{FL1}) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FL}^K) - (1 - \mathbb{P}_{HR}(e_{FL1})) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FL}^K) \end{aligned} \right]. \end{aligned} \tag{A.6}$$

This may look like a complicated expression, but note the following observations:

1. The first line of (A.6), when equated to 0, is identical to the first-order condition for the choice of effort of a second-term incumbent.
2. In the second line of (A.6), because

$$\mathbb{P}_{HR}(e_{F1}) = \frac{1}{2} + \Delta_H^u + \chi_H e_{F1},$$

we have that

$$\frac{\partial \mathbb{P}_{HR}(e_{FR1})}{\partial e_{FR1}} = \chi_H > 0. \quad (\text{A.7})$$

3. In the same second line of (A.6), as long as the Foreign incumbent is sufficiently pro-capital, it will always prefer lower capital taxes at Home (regardless of who is the incumbent in Foreign in the second term), so we necessarily have

$$W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) - W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) > 0 \quad (\text{A.8})$$

and

$$W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FL}^K) - W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FL}^K) > 0. \quad (\text{A.9})$$

Note that equations (A.7), (A.8) and (A.9) jointly imply that the term in the second line of the cumbersome derivative in (A.6) is necessarily positive.

4. In the third line of (A.6), $\partial P_{HR}(e_{FR1}) / \partial e_{FR1} > 0$ and $P_{FR}(e_{HR}) - P_{FR}(e_{HL}) > 0$, as long as the Home incumbent tries to favor its ideologically aligned Foreign party, implying $e_{HR} > 0$ and $e_{HL} < 0$. This is evident for second-term Home incumbents, but we conjecture that the same will be true for first-term Home incumbents, and we will later verify that this conjecture is true.
5. In the fourth line of (A.6), note that we have

$$\begin{aligned} & \mathbb{P}_{HR}(e_{FR2}) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) + (1 - \mathbb{P}_{HR}(e_{FR2})) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) - \frac{1}{2\phi_F} (e_{FR2})^2 > \\ & \mathbb{P}_{HR}(0) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) + (1 - \mathbb{P}_{HR}(0)) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) \end{aligned}$$

because $e_{FR2} \neq 0$ can only deliver a higher welfare level to the Foreign second-term incumbent.

6. Furthermore, as long $e_{HL} < 0$,

$$\begin{aligned} & \mathbb{P}_{HR}(0) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) + (1 - \mathbb{P}_{HR}(0)) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) > \\ & \mathbb{P}_{HR}(e_{FL1}) W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FL}^K) + (1 - \mathbb{P}_{HR}(e_{FL1})) W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FL}^K) \end{aligned}$$

because we can express this as

$$\begin{aligned} & \mathbb{P}_{HR}(0) \left[W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) - W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FL}^K) \right] \\ & + (1 - \mathbb{P}_{HR}(0)) \left[W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) - W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FL}^K) \right] > \\ & - (\mathbb{P}_{HR}(0) - \mathbb{P}_{HR}(e_{FL1})) \left[W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FL}^K) - W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FL}^K) \right], \end{aligned}$$

which necessarily holds because $W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FR}^K) > W_F(\beta_{FR}; \tau_{HR}^K, \tau_{FL}^K)$, $W_F(\beta_{FR}; \tau_{HL}^K, \tau_{FR}^K) > W_F(\beta_F; \tau_{HL}^K, \tau_{FL}^K)$, and $P_{HR}(0) > P_{HR}(e_{FL1})$, as long as $e_{FL1} < 0$.

In sum, as long as the effort levels of Home incumbents satisfy $e_{HR} > 0$ and $e_{HL} < 0$, and as long as $e_{FL1} < 0$, we have that first-term Foreign incumbents will have a marginal return to investing in foreign influence that is *higher* than for second-term Foreign incumbents. Intuitively, a pro-capital Foreign incumbent may not only want to help a Home pro-capital party get elected to benefit from the lower capital taxes this Home government would set, but also because they anticipate that a Home pro-capital incumbent will be more likely in the future to help the Foreign pro-capital government to get reelected in future elections in Foreign. This implies that $e_{FR2} > e_{FR1} > 0$.

A completely analogous set of derivations implies that first-term Home incumbents also set $e_{HR2} > e_{HR1} > 0$, which confirms our conjecture that $e_{HR} > 0$, regardless of whether the Home incumbent is a first- or second-term incumbent. Similarly, when studying the choices of first-term pro-labor incumbents, it can be verified following a completely analogous set of steps that first-term pro-labor incumbents will also exert more foreign influence, which in this case implies $e_{HL2} < e_{HL1} < 0$ and $e_{FL2} < e_{FL1} < 0$. This in turn implies that our conjectures $e_{HL} < 0$ and $e_{FL1} < 0$ above are verified. This completes the proof of Proposition 8.

A.4 Proof of Proposition 9

In this Appendix, we analyze the version of our model with commitment leading to Proposition 9. When the Home parties can credibly commit to their announced capital taxes, the timing of events of the political game is as follows:

- ($t = 1$) The Home pro-capital and pro-labor parties announce a policy platform $(\tau_{Hc}^K, \tau_{Hc}^L)$ for $c = \mathcal{R}, \mathcal{L}$.
- ($t = 1.5$) The incumbent party in Foreign decides how much effort e_F to exert with the goal of affecting the electoral outcome at Home.
- ($t = 2$) The values of ξ_H^K and ξ_H^L are realized.
- ($t = 3$) Elections occur at Home.
- ($t = 4$) Policies announced at $t = 1$ are implemented by the winning party and payoffs are realized.

It is intuitive (though we will demonstrate this formally below) that, given the above timing of events, for a given $(\tau_{Hc}^K, \tau_{Hc}^L)$ for $c = \mathcal{R}, \mathcal{L}$, the choice of e_F will be analogous to that in the main text, and given by

$$e_F = \chi_H \phi_F \left[W_F(\beta_F; \tau_{HR}^K) - W_F(\beta_F; \tau_{HL}^K) \right]. \quad (\text{A.10})$$

It is then clear that the first statement in Proposition 9 is necessarily true. A sufficiently pro-capital incumbent in a Foreign country will perceive $W_F(\beta_{F\mathcal{R}}; \tau_{H\mathcal{R}}^K) > W_F(\beta_{F\mathcal{R}}; \tau_{H\mathcal{L}}^K)$ and will thus take actions to increase the likelihood that an election at Home is won by a pro-capital party (or $e_{F\mathcal{R}} > 0$). Conversely, a sufficiently pro-labor incumbent in a Foreign country will perceive $W_F(\beta_{F\mathcal{L}}; \tau_{H\mathcal{R}}^K) < W_F(\beta_{F\mathcal{L}}; \tau_{H\mathcal{L}}^K)$, and will thus take actions to increase the likelihood that an election at Home is won by a pro-labor party (or $e_{F\mathcal{L}} > 0$).

The main novel aspect of the analysis with commitment is that capital taxes $\tau_{H\mathcal{R}}^K$ and $\tau_{H\mathcal{L}}^K$ are now set in stone at $t = 1$ by each of the two parties at Home, and thus these choices are partly shaped by how these policies will affect their electoral prospects, internalizing the impact of those choices on the foreign influence function in (A.10). Assuming that parties, are risk neutral, the pro-capital party at Home sets $\tau_{H\mathcal{R}}^K$ to maximize

$$\tilde{W}_H(\beta_{H\mathcal{R}}) = \mathbb{P}_{H\mathcal{R}} W_H(\beta_{H\mathcal{R}}, \tau_{H\mathcal{R}}^K) + (1 - \mathbb{P}_{H\mathcal{R}}) W_H(\beta_{H\mathcal{R}}, \tau_{H\mathcal{L}}^K),$$

while the pro-labor party at Home sets $\tau_{H\mathcal{L}}^K$ to maximize

$$\tilde{W}_H(\beta_{H\mathcal{L}}) = \mathbb{P}_{H\mathcal{R}} W_H(\beta_{H\mathcal{L}}, \tau_{H\mathcal{R}}^K) + (1 - \mathbb{P}_{H\mathcal{R}}) W_H(\beta_{H\mathcal{L}}, \tau_{H\mathcal{L}}^K).$$

As in our baseline model, the probability $\mathbb{P}_{H\mathcal{R}}$ is given by

$$\mathbb{P}_{H\mathcal{R}} = \frac{1}{2} + \Delta_H^u + \chi_H \rho_H,$$

with

$$\Delta_H^u \equiv \kappa \gamma_H^K \left(r(\tau_{H\mathcal{R}}^K) - r(\tau_{H\mathcal{L}}^K) \right) \bar{K}_H + (1 - \kappa) \gamma_H^L \left(w_H(\tau_{H\mathcal{R}}^K, \tau_{H\mathcal{R}}^L) - w_H(\tau_{H\mathcal{L}}^K, \tau_{H\mathcal{L}}^L) \right) \bar{L}_H,$$

$$\chi_H \equiv \kappa \gamma_H^K + (1 - \kappa) \gamma_H^L,$$

and

$$\rho_H = e_F.$$

A Pro-Capital Home Incumbent Consider first the problem solved by a pro-capital Home incumbent. The derivative of $\tilde{W}_H(\beta_{H\mathcal{R}})$ with respect to $\tau_{H\mathcal{R}}^K$ is given by

$$\frac{d\tilde{W}_H(\beta_{H\mathcal{R}})}{d\tau_{H\mathcal{R}}^K} = \mathbb{P}_{H\mathcal{R}} \frac{\partial W_H(\beta_{H\mathcal{R}}, \tau_{H\mathcal{R}}^K)}{\partial \tau_{H\mathcal{R}}^K} + \frac{\partial \mathbb{P}_{H\mathcal{R}}}{\partial \tau_{H\mathcal{R}}^K} \left[W_H(\beta_{H\mathcal{R}}; \tau_{H\mathcal{R}}^K) - W_H(\beta_{H\mathcal{R}}; \tau_{H\mathcal{L}}^K) \right]$$

and

$$\begin{aligned}
\frac{\partial \mathbb{P}_{HR}}{\partial \tau_{HR}^K} &= \frac{\partial \Delta_H^u}{\partial \tau_{HR}^K} + \chi_H \frac{\partial e_F}{\partial \tau_{HR}^K} \\
&= \kappa \gamma_H^K \bar{K}_H \frac{dr(\tau_{HR}^K)}{d\tau_{HR}^K} + (1 - \kappa) \gamma_H^L \bar{L}_H \frac{dw_H(\tau_{HR}^K)}{d\tau_{HR}^K} + \chi_H \frac{\partial e_F}{\partial \tau_{HR}^K} \\
&= \kappa \gamma_H^K \bar{K}_H \frac{dr(\tau_{HR}^K)}{d\tau_{HR}^K} + (1 - \kappa) \gamma_H^L \bar{L}_H \frac{dw_H(\tau_{HR}^K)}{d\tau_{HR}^K} + \chi_H \phi_F \frac{\partial W_F(\beta_F; \tau_{HR}^K)}{\partial \tau_{HR}^K}.
\end{aligned}$$

When setting the derivative $d\tilde{W}_H(\beta_{HR})/d\tau_{HR}^K$ to 0, the resulting optimal tax τ_{HR}^K will be distinct from the one in our baseline model, which simply sets

$$\frac{\partial W_H(\beta_{HR}, \tau_{HR}^K)}{\partial \tau_{HR}^K} \leq 0; \quad \tau_{HR}^K \geq 0,$$

because we will typically have

$$\frac{\partial \mathbb{P}_{HR}}{\partial \tau_{HR}^K} \neq 0.$$

The reason for this departure is twofold. On the one hand, and even in the absence of foreign influence (i.e., $e_F = 0$), the pro-capital Home incumbent now realizes that even though it may desire a very low (possibly 0) capital tax, if most of the voters are workers, such a policy announcement will cost the party lots of votes (note $dw_H(\tau_{HR}^K)/d\tau_{HR}^K > 0$), so this will attenuate its incentive to set a very low capital tax. On the other hand, foreign influence further shapes the choice of τ_{HR}^K because the pro-capital Home party understands that announcing a τ_{HR}^K in line with the ideology of the Foreign incumbent will enhance its electoral prospects.

What is the direction of the latter departure? Notice that it is driven by the sign of

$$W_H(\beta_{HR}; \tau_{HR}^K) - W_H(\beta_{HR}; \tau_{HL}^K) > 0,$$

which is positive because τ_{HR}^K is a preferred policy for the Home pro-capital party, and by the sign of

$$\frac{\partial W_F(\beta_F; \tau_{HR}^K)}{\partial \tau_{HR}^K}.$$

From Proposition 5, this term will be positive when the Foreign government is sufficiently pro-labor, while it will be negative when the Foreign incumbent is sufficiently pro-capital. Regardless of the outcome of the election and the particular way in which commitment would affect policies in the absence of foreign influence, we can thus conclude that when the Foreign incumbent is sufficiently pro-capital, the Home pro-capital party will announce capital taxes that are weakly lower than those they would announce in the absence of foreign influence, while if the Foreign incumbent is sufficiently pro-labor, the Home pro-capital party will announce capital taxes that are

weakly higher than those they would announce in the absence of foreign influence. We have thus established the second statement in Proposition 9 for the case of a pro-capital Home incumbent.

A Pro-Labor Home Incumbent The optimal policies set by a pro-labor Home incumbent can be solved analogously. We provide the details for completeness. The derivative of $\tilde{W}_H(\beta_{H\mathcal{L}})$ with respect to $\tau_{H\mathcal{L}}^K$ is given by

$$\frac{d\tilde{W}_H(\beta_{H\mathcal{L}})}{d\tau_{H\mathcal{L}}^K} = (1 - \mathbb{P}_{H\mathcal{R}}) \frac{\partial W_H(\beta_{H\mathcal{L}}, \tau_{H\mathcal{L}}^K)}{\partial \tau_{H\mathcal{L}}^K} + \frac{\partial(1 - \mathbb{P}_{H\mathcal{R}})}{\partial \tau_{H\mathcal{L}}^K} [W_H(\beta_{H\mathcal{L}}; \tau_{H\mathcal{L}}^K) - W_H(\beta_{H\mathcal{L}}; \tau_{H\mathcal{R}}^K)]$$

with

$$\begin{aligned} \frac{\partial \mathbb{P}_{H\mathcal{R}}}{\partial \tau_{H\mathcal{L}}^K} &= \frac{\partial \Delta_H^u}{\partial \tau_{H\mathcal{L}}^K} + \chi_H \frac{\partial e_F}{\partial \tau_{H\mathcal{L}}^K} \\ &= \frac{\partial \Delta_H^u}{\partial \tau_{H\mathcal{L}}^K} + \chi_H \phi_F \frac{\partial W_F(\beta_F; \tau_{H\mathcal{L}}^K)}{\partial \tau_{H\mathcal{R}}^K}. \end{aligned}$$

When setting the derivative $d\tilde{W}_H(\beta_{H\mathcal{L}})/d\tau_{H\mathcal{L}}^K$ to 0, the resulting optimal tax $\tau_{H\mathcal{L}}^K$ will be distinct from the one in our baseline model, which simply sets

$$\frac{\partial W_H(\beta_{H\mathcal{L}}, \tau_{H\mathcal{L}}^K)}{\partial \tau_{H\mathcal{L}}^K} \leq 0; \quad \tau_{H\mathcal{L}}^K \geq 0,$$

because we will typically have

$$\frac{\partial \mathbb{P}_{H\mathcal{R}}}{\partial \tau_{H\mathcal{L}}^K} \neq 0.$$

In part this is due to the fact that, even in the absence of foreign influence (i.e., $e_F = 0$), the pro-labor Home incumbent now realizes that even though it may desire a high capital tax, if many of the voters are capitalists, such a policy announcement will cost the party lots of votes (note $dr_H(\tau_{H\mathcal{L}}^K)/d\tau_{H\mathcal{L}}^K < 0$), so this will attenuate its incentive to set a very high capital tax. On the other hand, foreign influence further shapes the choice of $\tau_{H\mathcal{L}}^K$ because the pro-labor Home party understands that announcing a $\tau_{H\mathcal{L}}^K$ in line with the ideology of the Foreign incumbent will enhance its electoral prospects.

What is the direction of the latter departure? Notice that it is driven by the sign of

$$W_H(\beta_{H\mathcal{L}}; \tau_{H\mathcal{L}}^K) - W_H(\beta_{H\mathcal{L}}; \tau_{H\mathcal{R}}^K) > 0,$$

which is positive because $\tau_{H\mathcal{L}}^K$ is a preferred policy for the Home pro-labor party, and by the sign of

$$\frac{\partial W_F(\beta_F; \tau_{H\mathcal{L}}^K)}{\partial \tau_{H\mathcal{L}}^K}.$$

From Proposition 5, this term will be positive when the Foreign government is sufficiently pro-labor, while it will be negative when the Foreign incumbent is sufficiently pro-capital.

We can thus safely conclude that, regardless of the outcome of the election and the particular way in which commitment would affect policies in the absence of foreign influence, when the Foreign incumbent is sufficiently pro-capital, the Home parties will announce capital taxes that are weakly lower than those they would announce in the absence of foreign influence, while if the Foreign incumbent is sufficiently pro-labor, the Home parties will announce capital taxes that are weakly higher than those they would announce in the absence of foreign influence. This completes the proof of Proposition 9.