

# How Sovereigns Steal: Political Constraints and the Choice Between Transfer and Expropriation Rents

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## Abstract

The current literature on political risk and foreign investment is focused on the risks produced by war and expropriation. Scholars miss a significant and material factor in foreign investment by not analyzing transfer risk, the risk associated with the inability to repatriate capital. We argue that the collection of transfer rents and expropriation are substitutable means for governments to extract wealth from foreign investors. Domestic political constraints determine host governments' relative preference for transfer or expropriation rents. To clarify this relationship, we use a formal model to derive testable implications regarding the effect of political institutions on governments' choice between transfer rents and expropriation. Empirically, we show that transfer risk is an important determinant of foreign direct investment flows to developing countries and that increases in executive constraints make governments more likely to choose transfer rents over expropriation.

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# 1 Introduction

For as long as investors have invested abroad, there has been the risk that foreign property will be confiscated by the host government for either private or public redistribution. Today, nearly every venture overseas, and particularly those in developing countries, face some type of political risk. Such risks come in the form of violence and adverse regime change (war risk), the government's seizure of assets or revenues (expropriation risk), or the government's prohibition or limitation of capital repatriation (transfer risk). Among political economy and foreign investment scholars, most attention has been paid to the most visible forms of this risk: expropriation and war. However, transfer risk is material and arguably more prevalent.

Transfer risk is the risk of losses arising from an investor's inability to convert and transfer hard currency out of the host country, in other words to repatriate capital or dividends.<sup>1</sup> In July 2011, 316 corporate executives in diverse firms, industries, and host countries were asked to assess the importance of eight different political risks (World Bank, 2011).<sup>2</sup> Forty-five percent of respondents rated transfer risk as having either the highest or second highest impact on their companies' risk assessment, a significantly more pressing concern than either risk of expropriation (34%) or risk of war (31%). Nearly 1 in 5 executives regarded war (23%) and expropriation (17%) risk as having "no impact" on their risk perception, however only 1 in 15 regarded transfer risk as such (7%). This assessment matches reported data

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<sup>1</sup>The rating agency Standard and Poor's defines transfer and convertibility risk as "the likelihood that a sovereign will limit the ability of a nonsovereign to exchange local currency for another currency or gold and to remit it..." (Standard and Poor's 2009). The price-leading political risk insurer Office National du DuCroire ("ONDD") defines transfer risk as the risk of "foreign currency shortage, or a general moratorium promulgated by public authorities in the host country entailing the impossibility for [the foreign investor] to obtain transfer to [its home country] of the funds available he is entitled to" (ONDD 2012).

<sup>2</sup>Question 11: "In your opinion, in the developing countries where your firm invests presently, how do each of the risks listed below affect your company?"

from the Berne Union, the leading global association for export credit and investment insurance, that 200 out of the 380 insurance claims submitted over the period 1971 to 2001 were either convertibility or transfer risk claims.<sup>3</sup>

In comparison to expropriations, which are infrequent and declining (Henisz and Zelner 2010), transfer risk is thus commonly encountered and often a larger concern to foreign investors. Yet transfer risk is understudied. The extant literature on political risks such as war risk or government and expropriation risk is rich and progressive, but very little work tackles transfer risk or the ability of foreign investors to repatriate capital.<sup>4</sup> Broader political economy work investigates exchange rate regimes and capital controls to explain macroeconomic outcomes, including the effects of exchange rate instability on some foreign investment (Frieden 1991, 2002; Eichengreen and Frieden 1994; Bernhard, Broz, and Clark 2002; Alesina and Rosenthal 1995; Bernhard and Leblang 1999). We rely on this work but fundamentally focus on the political story of transfer risk and foreign investment. We argue for the prominence of transfer risk as a distinct outcome of politics.

In this paper we aim to explain the causes of transfer risk. We disaggregate the political risks of transferability and expropriation, both of which we identify as means for governments to seize rents from foreign investors, and we identify the conditions under which governments prefer one means of seizure over another. Specifically, why do governments seek transfer rents instead of expropriation rents?

The paper proceeds as follows. First, we illustrate our argument both in a formal model of government and investor decisions and with reference to the extant

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<sup>3</sup><http://www.berneunion.org.uk/>

<sup>4</sup>In a sample of important political science journals, the contrast is stark. We performed advanced searches on specific terms in the following journals in JSTOR from 2000-2011 (unless noted): *American Journal of Political Science*, *American Political Science Review* (to 2008), *Journal of Politics* (to 2008), *International Studies Quarterly* (to 2006), *International Organization* (2008), *Journal of Conflict Resolution* (to 2008), and *World Politics* (to 2006). Over the last ten years in seven journals, 77 articles covered political risk and 56 focused on expropriation but only 3 covered transfer risk, 1 foreign exchange risk, and 1 convertibility.

literature on political risk and foreign investment. Our model articulates the government's calculus on rent seeking and shows how transfer risk determines foreign investment through the amount and capabilities of capital repatriated. From the model we generate testable hypotheses. Using relatively novel time-series, cross-sectional data on political risk and capital flows for the thirty largest emerging markets, we then test the model's comparative statics in the subsequent section. We conclude the paper with a discussion of our findings and implications for future research.

## 2 Theory

To begin a discussion of the politics of transfer risk, we find conditions under which it is optimal for a foreign investor to invest in a foreign country, despite the risk of increased transfer costs for the repatriation of capital. Once these conditions are expressed, we then analyze how political constraints affect the host government's decision between transfer risk and expropriation risk.

### 2.1 An Extensive-Form Game with Risk and Repatriation

We examine a game-theoretic approach to the problem of investment under transfer risk and expropriation risk. We model the relationship between a host government and a foreign investor as a four-period game. Define this investor as the *average* investor over a range of firm sizes and sectors.

Our model assumes that in each round of play, a government ( $G$ ) has two mechanisms to seize rents from the foreign investor ( $F$ ): first, by increasing the rents gained from  $F$  repatriating assets; and second, by expropriating top-line assets.<sup>5</sup> At

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<sup>5</sup>We assume that the host government seeks to maximize its revenue. Expanding restrictions on

the beginning of the game, the foreign investor can either *invest* ( $I$ ) or *not invest* ( $\neg I$ ). If they invest, nature ( $N$ ) moves and determines the externality ( $\pi$ ) associated with transfer rents.<sup>6</sup> After nature's move, the government can either uphold the investment contract by maintaining the agreed-upon transfer rents,  $t_0$ , or *breach the contract* by selecting some  $t' = t_0 + \tau$ , where  $\tau > 0$ . The foreign investor is imperfectly informed about the outcome of this determination, however. They perceive, with probability  $p$ , that the host government will breach their contract by selecting  $t'$ . Based on this perception,  $F$  selects what level ( $\epsilon$ ) to expedite repatriation before the new policy is announced.  $G$  then decides whether or not to expropriate top-line assets.<sup>7</sup> Figure 1 displays this four-move game.

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capital repatriation takes earned revenues from foreign firms and creates “transfer rents” for the government. Similarly, expropriating assets or revenue streams creates “expropriation rents.” In this paper, we make no assumption about how they intend to use this revenue.

<sup>6</sup>Here, we consider any positive externality of the investment. For example, the value of the rents may be magnified if the host government is more cash strapped or if the leader is struggling to build a political war chest for re-election. In each case, the environment will impact how much more (over the market price)  $G$  will value the additional rents.

<sup>7</sup>If  $G$  expropriates, this model assumes that  $F$ 's intention to expedite repatriation is unrealized - that the assets will be seized in either case. This simulates the difference between endogenous risk, which can be mitigated by informational advantages and structural capabilities, and exogenous risk, which cannot. An alternative version could allow  $F$  to salvage *some* of their assets even in the case of outright expropriation.

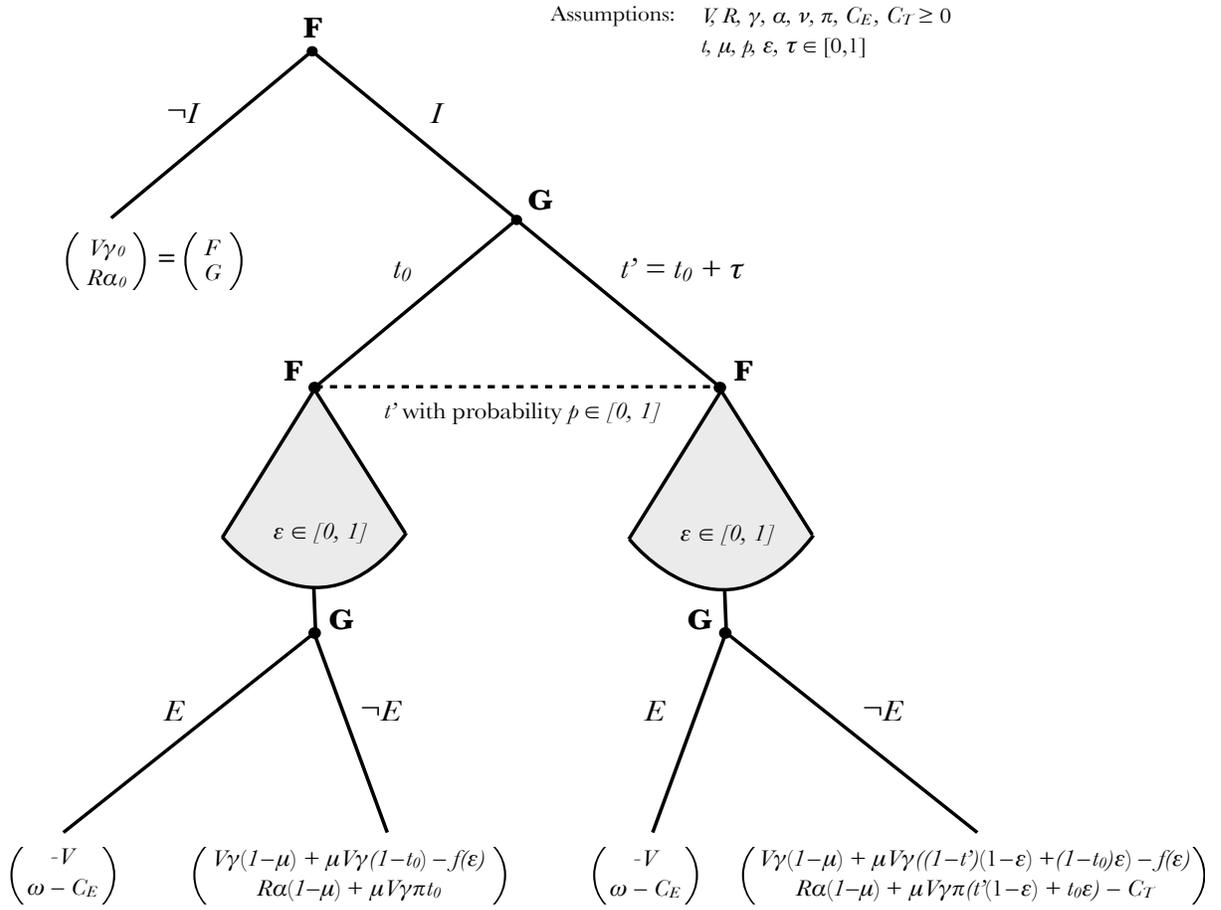


Figure 1: A two player extensive-form game in which a foreign investor ( $F$ ) chooses whether or not to invest; a host government ( $G$ ) chooses at what level ( $t$ ) to set transfer rents on that investment;  $F$  chooses, before the new policy is announced, at what level to expedite repatriation ( $\varepsilon$ ); and  $G$  decides whether to expropriate top-line assets or not.

As shown in figure 1, if the investor plays  $\neg I$ , they receive a reservation value of  $V\gamma_0$ , where  $V$  is the amount they would have invested,  $\gamma_0$  is the rate of return if invested elsewhere, and  $\gamma$  is the return if  $F$  plays  $I$ .<sup>8</sup> Define  $\mu$  as the amount of their original investment  $F$  intends to repatriate,  $\epsilon$  as the amount of  $\mu$  they choose to expedite (before a policy shift occurs), and  $f(\epsilon)$  as a function for how costly it is to expedite that portion.<sup>9</sup> For this paper, we assume that  $f(\epsilon) = \lambda\epsilon^n$ , where  $\lambda \geq 0$  and  $n = 1$ . If the investor plays  $I$ , he receives a maximum of  $V\gamma(1 - \mu) + \mu V\gamma(1 - t_0)$  (if  $G$  upholds the investment contract and  $F$  plays  $\epsilon = 0$ ; this is a weighted sum of what they earn on their non-repatriated assets  $(1 - \mu)$  and their repatriated portion  $(\mu$ , subject to  $t_0$ )) and a minimum of  $-V$  (if  $G$  plays  $E$ ). Thus, while the investor prefers to invest with minimal transfer rents and without the threat of expropriation, they may or may not prefer intermediate transfer rents (or a chance of expropriation) to  $V\gamma_0$ , depending on how large  $p$  is and how lucrative the investment opportunity.

Like the investor, the host government receives a reservation value of  $R\alpha_0$  if  $F$  does not invest. Denote  $R$  as the amount of revenue  $G$  contributes to the average foreign investment project and  $\alpha$  as the risk-adjusted returns on that contribution.<sup>10</sup> Denote  $C_E$  and  $C_T$  as the costs of backlash  $G$  receives after expropriation or a unilateral increase in transfer rents, respectively.<sup>11</sup> If  $F$  invests and  $G$  upholds the original investment contract,  $G$  receives  $\mu V\gamma\pi t_0$  on the portion that  $F$  repatriates and  $R\alpha(1 - \mu)$  on the portion that  $F$  does not:  $R\alpha(1 - \mu) + \mu V\gamma\pi t_0$ . If  $G$  breaks the contract, selecting  $t'$ , they receive  $R\alpha(1 - \mu) + \mu V\gamma\pi(t'(1 - \epsilon) + t_0\epsilon) - C_T$ . Fi-

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<sup>8</sup> $\gamma$  is a function of various investment indicators.

<sup>9</sup>where  $f(0) = 0$  and  $f'(\epsilon) \geq 0$ .

<sup>10</sup> $R$  may vary from country to country, depending on the costs of building infrastructure for investment, marketing/investment promotion, joint ventures, etc. We envision  $\alpha$  as a composite of tax revenue from the international corporations, profits from joint ventures, and income tax revenue from the public (we allow for the possibility that FDI increases the domestic productivity of workers, raising incomes, thus generating more income tax revenue for a given tax rate). Note that  $\alpha_0$  is the rate  $G$  would receive if  $R$  were not used on foreign investment.

<sup>11</sup>Below we elaborate on these costs.

nally, if the host government expropriates, they receive  $\omega - C_E$ . Notice that, in this game, without the prospect of backlash to a contract violation, the government always prefers to either seize the maximum amount of transfer rents, or to directly expropriate, whichever offers the greater return. This creates tension in the game between playing  $t'$  or  $E$ , on one hand, and avoiding the backlash, on the other.

**Definition 1** *A transfer risk equilibrium is an equilibrium in which  $F$  plays  $\{I, \epsilon = 0\}$  and  $G$  never expropriates, but sets transfer rents at level  $t'$ .*

**Proposition 1** *There is a transfer risk equilibrium when the following conditions hold:*

1.  $\omega \leq R\alpha(1 - \mu) + \mu V\gamma\pi t_0 + C_E$
2.  $\omega \leq R\alpha(1 - \mu) + \mu V\gamma\pi(t'(1 - \epsilon) + t_0\epsilon) - C_T + C_E$
3.  $\lambda \leq \mu V\gamma\tau$
4.  $p \leq \frac{1}{2 - \frac{\lambda}{v\gamma(1 - \mu - \mu(1 - t_0))}}$
5.  $N$  selects  $\pi \geq \frac{C_T}{\mu V\gamma\tau}$ .
6.  $\gamma \geq \frac{\gamma_0}{1 - \mu(t_0 + p\tau)}$ .

*See Technical Appendix for proof.*<sup>12</sup>

At this point, we have demonstrated a logic for how transfer risk can accompany investment. Below, we proceed to show how an increase in transfer risk affects the outcome supported in equilibrium.

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<sup>12</sup>Available at <http://npjohnston.wustl.edu/Research.html>

## 2.2 The Effect of Transfer Risk on Foreign Investment

How does an increase in transfer risk affect the behavior of  $G$  and  $F$  in equilibrium?

We begin by assuming that  $G$  and  $F$  are in the *transfer risk equilibrium* specified in proposition (1), in which  $F$  invests despite transfer rents,  $t'$ . Now assume that the probability of a unilateral transfer rent hike ( $t'$ ) increases from  $p$  to  $p^*$ , where  $p^* > p$ . At this new level of transfer risk, how is the equilibrium behavior affected? By inspection, we see that an increase in  $p$  affects conditions 4 and 6, above. The most straightforward consequence is that, in condition 6, as  $p$  increases, the denominator decreases, making  $F$ 's minimum profit-threshold (in order to invest) more difficult to satisfy. Even if  $F$  chooses to invest, however, there is a further consequence. Increasing transfer risk also impacts  $F$ 's decision of how much to expedite. Looking at condition 4 we see that, even if doing so leads to a higher likelihood of expropriation,  $F$  will have more incentive to pay the costs of quickly removing their assets ( $\epsilon = 1$ ).

As transfer risk increases, the effect on investor behavior is straightforward in this model: transfer risk makes it more difficult to satisfy  $F$ 's rate of return threshold and more likely that  $F$  will "jump the gun" and expedite the repatriation of assets in more uncertain times. Thus, in general, we expect that increases in transfer risk will lead to less investment. This leads to our first empirically testable hypothesis:

***Hypothesis 1:** Countries with higher levels of transfer risk will receive lower levels of foreign direct investment.*

## 2.3 The Effect of Political Constraints on Transfer Risk

While transfer risk can alienate potential investors and lead to more finicky investor behavior, countries may be able to mitigate these risks by increasing the constraints

on government leaders. But how do domestic political institutions effect transfer risk? Existing work finds that the higher the probability that the host government will adversely change policy governing foreign investments, the higher the level of political risk (Root 1987; North 1990; Henisz 2000; Delios and Henisz 2003). Unsurprisingly, those host countries with the most political risk receive less foreign investment (Jensen and Johnston 2011; Henisz 2000; Jensen 2003; Knack and Keefer 1995; Mauro 1995; Meyer 2001; Rodrik, Subramanian, and Trebbi 2004). We contend that this relationship holds true across all types of political risk, including understudied and material transfer risk, but that the role of political constraints drives the government's relative preferences for transfer or expropriation rents.

Political constraints are one solution to governments' credibility problems. Constraints such as institutional veto players provide checks on discretionary behavior by the sovereign (Cowhey 1993; Rogowski 1999; Henisz 2000; Tsebelis 2002). The more political constraints on a government, the more the sovereign's hands are tied and thus the less likely arbitrary policy change. While a government may be willing to break its commitments, it is less able to do so when constrained.

Indeed, constrained governments have lower levels of aggregate political risk (Henisz and Zelner 2001; Henisz 2002; Tsebelis 2002; Jensen 2003; Li and Resnick 2003; Jensen 2006; Jensen 2008). However, the precise logic of why political constraints affect specific political risks such as expropriation or transfer risk is unclear. For expropriation risk, scholars generally contend that host governments with institutional constraints offer investors more stable policy and lower levels of expropriation risk (Henisz and Zelner 2001; Henisz 2002; Jensen 2005), but Li and Resnick (2003) and Jensen (2008) debate the exact role of political constraints for expropriation.

There is good reason to expect political constraints to reduce the total level of

rents that political actors extract from foreign investors in a given country, but constraints also alter the incentives of political actors in choosing between different means for collecting rents. While the aggregate effect of constraints on risk is negative, constraints may elevate the severity of some risks relative to others (see Figure 2). Below, we argue that political constraints affect governments' choice between transfer rents and expropriation rents due to the different political costs associated with collecting each type of rent.

Returning to our theoretical model, suppose that a government is deciding between expropriation and a transfer breach (i.e. unilateral transfer risk increase). To analyze this choice, we first define an equilibrium in which a government chooses between transfer breach and expropriation, depending on the state of nature, and then ask how domestic political constraints bear upon this decision.

**Definition 2** *A political risk equilibrium is an equilibrium in which  $F$  plays  $\{I, \epsilon = 1\}$  and  $G$  plays  $\{t', E\}$  on the equilibrium path, expropriating otherwise.*

**Proposition 2** *There is a political risk equilibrium when the following conditions hold:*

1.  $\omega \geq R\alpha(1 - \mu) + \mu V\gamma\pi t_0 + C_E$
2.  $\omega \leq R\alpha(1 - \mu) + \mu V\gamma\pi(t'(1 - \epsilon) + t_0\epsilon) - C_T + C_E$
3.  $\lambda \leq \mu V\gamma\tau$
4.  $N$  selects  $\pi \geq \frac{C_T}{\mu V\gamma(1-2t_0)}$ .
5.  $\gamma \geq \frac{p\lambda + V(1-p+\gamma_0)}{pV(1-\mu t_0)}$ .

*Proof not included here.*

What happens to expropriation risk (condition 1) and transfer risk (condition 2) as domestic political constraints increase? To answer this, we consider specific political consequences of these actions.

### 2.3.1 Political Salience and Distributive Politics

Following the logic of public choice, governments seek to maximize tenure (Buchanan and Tullock 1962) and rents (Buchanan and Tullock 1962; Krueger 1974; Olson 1965; Downs 1957; Black 1958). This means that governments are sensitive to both the political salience and distributive politics of public policy outcomes (Berelson, Lazarsfeld, and McPhee 1954; Lowi 1969; Rabinowitz, Prothro, and Jacoby 1982; Grossman and Helpman 2001; Pandya 2010). Salience describes the importance of a political issue to a government's ability to maximize its objectives. Widely salient issues affect large numbers of constituents in a significant manner, and they typically receive media coverage. Narrowly salient issues have limited affect on only a limited number of constituents. Rent seeking, on the other hand, is the deliberate but value-destroying use of government power to redistribute wealth to certain interests. We argue that transfer rents and expropriation rents differ in political salience and distributional impact.

Transfer rents have a low domestic political salience (e.g. unlikely to be high profile and opposed by domestic interests) because the policy actions involved, such as capital controls, affect primarily foreign commercial interests repatriating capital. Indeed, restrictions on capital repatriation incentivize foreign investors to move their value chain onshore, which can benefit domestic interests. Transfer rents are also less likely than other rents to be opposed by domestic constituencies because the policies through which transfer rents are often captured, particularly various forms of capital controls and taxes on repatriated earnings, are viewed as legitimate tools of macro-economic management rather than as violations of the rule of law. In addition, because of the complex nature of the policies involved, transfer rents may prove relatively easy for governments to hide from constituents.

Taking rents through expropriation, on the other hand, tends to be highly salient

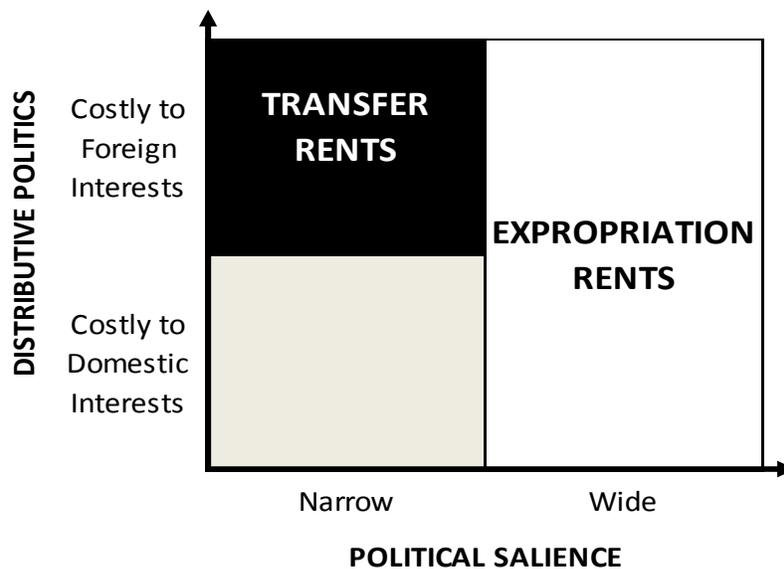


Figure 2: Why Transfer Rents are Less Politically Costly to Constrained Governments

and the policies through which it is implemented are less likely to be viewed as consistent with a strong rule of law. While governments may choose to only expropriate from foreign firms, the tools through which they expropriate are easily extended to firms that are fully or partially domestic. Once a government begins expropriating from foreign firms, its promise to refrain from expropriating domestic firms becomes less credible. Therefore, expropriation draws opposition from both domestic and foreign commercial interests.

While transfer rents come only from foreign investors' repatriated capital, expropriation rents take directly from foreign interests' top-line revenues or local assets, meaning there is potentially a larger asset pool at stake. The total value of assets that can be expropriated via transfer rents is limited to those assets being repatriated – fixed assets and funds destined for domestic reinvestment or payment of local creditors and suppliers are not at risk. Expropriation is not limited in this way and even when the expropriation target is foreign the expropriation may take

indirectly from those domestic interests that rely on the foreign investment.

The domestic political costs of expropriation are also elevated by the fact that many of the tools through which governments may expropriate private assets are viewed as inconsistent with the rule of law. While the domestic economic costs of expropriation can be reduced by selective expropriation, this very selectiveness – which can be interpreted as arbitrariness – also elevates rule-of-law concerns. The more a government’s actions are viewed as inconsistent with the rule of law, the greater the long-run economic costs in terms of lost investment, and the greater the domestic political costs. Indeed, one senior global bank executive said off the record, “Expropriation is an event in time that people can measure – it is a very profound statement. But transfer risk is very benign: it happens in banks, under the table on dark Saturday nights, and there are no headlines.”<sup>13</sup> The logic in this section is displayed in figure 2.

### **2.3.2 Equilibrium Behavior and Comparative Statics**

We return to our question above: what happens to expropriation risk (condition 1) and transfer risk (condition 2) as domestic political constraints increase? Above we argue that increasing political constraints has different effects on different types of risk. Altering transfer policy, for example, may be much less vulnerable to domestic backlash: it only affects resources that are leaving the country, it can be seen as a legitimate tool for macro-economic management, and domestic investors will be less concerned about spillover effects than if they observed an expropriation (which could also be done to them!). In general, expropriation often draws opposition from both foreign and domestic firms, while transfer risk, which may draw just as much opposition from foreign firms, often incurs a less costly domestic response.

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<sup>13</sup>Authors’ confidential interview, November 6, 2012.

Based this discussion, we next define the costs of expropriation ( $C_E$ ) and transfer shifts ( $C_T$ ) with respect to their foreign (f) and domestic components (d). More formally, define  $c_{i,j}$ , where  $i \in \{E, T\}$  and  $j \in \{d, f\}$  such that  $C_i = c_{i,d} + c_{i,f}$  and  $c_{i,j} \geq 0$ .

Suppose that the host government undergoes political changes, increasing the political costs associated with contract breach.<sup>14</sup> Here, while the overall backlash to either expropriating or capturing extra transfer rents increases from  $C_i$  to  $C'_i$ , it is due to the domestic component of the backlash. Thus, in this case,  $C_i \rightarrow C'_i$  means  $c_{i,d} + c_{i,f} \rightarrow c'_{i,d} + c_{i,f}$ , where  $c'_{i,d} = c_{i,d}(1 + \beta_i)$  and  $\beta_i > 0$  is the amount by which the domestic shift increases costs.

With these new parameters, we now investigate the impact of tighter domestic political institutions on these two types of risk. We begin with expropriation. Looking at condition 1, as  $C \rightarrow C'$ , the host government will have less incentive to expropriate when:

$$R\alpha(1 - \mu) + \mu V\gamma\pi(1 - t_0) + C'_E \geq R\alpha(1 - \mu) + \mu V\gamma\pi(1 - t_0) + C_E \Rightarrow$$

$$C'_E \geq C_E \Rightarrow c'_{E,d} + c_{E,f} \geq c_{E,d} + c_{E,f} \Rightarrow$$

$$c_{E,d}(1 + \beta_E) \geq c_{E,d} \Rightarrow c_{E,d}\beta_E \geq 0,$$

which is satisfied by assumption. Thus, condition 1 becomes harder to satisfy as the depth of domestic political constraints increases. For transfer risk, we look at condition 2.  $C'$  will make selecting  $t'$  more costly for the home government when:

$$R\alpha(1 - \mu) + \mu V\gamma\pi t_0\epsilon - C'_T + C'_E \geq R\alpha(1 - \mu) + \mu V\gamma\pi t_0\epsilon - C_T + C_E \Rightarrow$$

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<sup>14</sup>These may include, for example, more extensive bureaucratic red tape, additional veto players to check government leaders, or policies that sanction contract breach.

$$\begin{aligned}
-C'_T + C'_E \geq -C_T + C_E &\Rightarrow -c'_{T,d} - c_{T,f} + c'_{E,d} + c_{E,f} \geq -c_{T,d} - c_{T,f} + c_{E,d} + c_{E,f} \Rightarrow \\
-c_{T,d}(1 + \beta_T) + c_{E,d}(1 + \beta_E) &\geq -c_{T,d} + c_{E,d} \Rightarrow \frac{\beta_E}{\beta_T} \geq \frac{c_{T,d}}{c_{E,d}}.
\end{aligned}$$

So, we have a clear condition, but how do we interpret what it predicts?

## 2.4 How Political Constraints Elevate Transfer Risk Over Expropriation Risk

Using the explanation above, we can understand our comparative static prediction.

In Section 2 we argue that, while expropriation and transfer risk are both responsive to international constraints, the nature of each phenomenon creates a divide in how each responds to domestic politics (see figure 2). Specifically, Section 2.1 argues that expropriation is significantly more accountable to domestic institutions. If this is true, it implies that, not only is the current level of domestic constraints more pressing for expropriation ( $c_{E,d} > c_{T,d}$ ), but so are increases to those constraints ( $\beta_E > \beta_T$ ). Even if this asymmetry is small,  $\frac{\beta_E}{\beta_T} \geq \frac{c_{T,d}}{c_{E,d}}$  will be satisfied, implying that increasing domestic constraints should also negatively impact transfer risk. Note that this determination is less straightforward than for expropriation.

Finally, having verified that an increase in domestic political constraints can protect a larger set of investors from both transfer risk and expropriation risk, we compare which effect is greater; the change in expropriation risk ( $c_{E,d}\beta_E$ ) or transfer risk ( $-c_{T,d}\beta_T + c_{E,d}\beta_E$ ). We see that increasing domestic political constraints will have a more dramatic effect on expropriation when:

$$c_{E,d}\beta_E \geq -c_{T,d}\beta_T + c_{E,d}\beta_E \Rightarrow c_{T,d}\beta_T \geq 0,$$

which is satisfied by assumption. Notice that, while we relied on assumptions

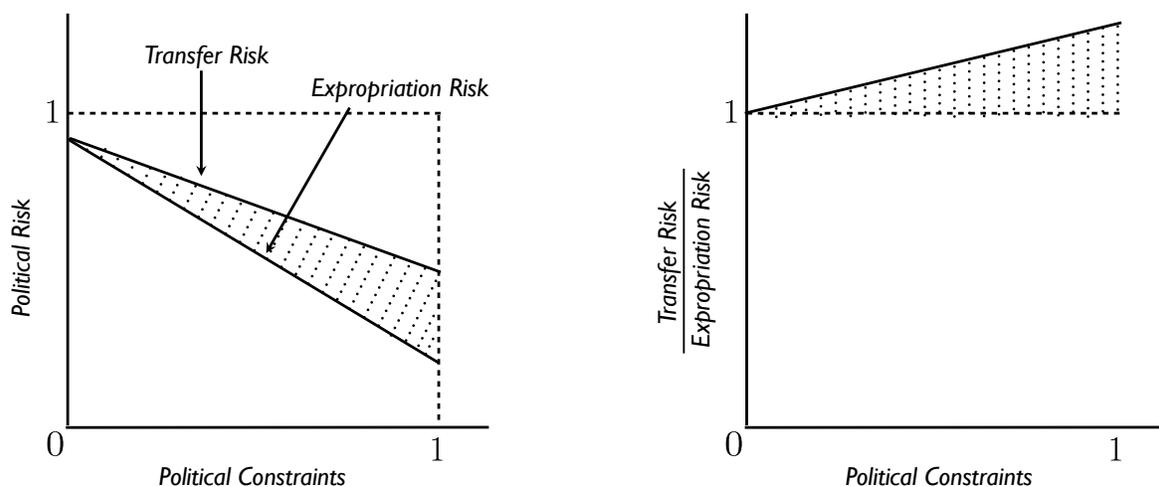


Figure 3: Illustrations of how political constraints map onto political risk (LHS) and how increasing political constraints may elevate the severity of some risks relative to others (RHS).

in Section 2 to adjudicate whether domestic constraints decrease transfer risk, the assumptions are not necessary here (nor were they needed to demonstrate that domestic constraints reduce the incentive to expropriate). Figure 3 displays the intuition graphically.

Consequently, we argue that the more constrained the government, the more likely it is to prefer transfer rents over expropriation rents. Expropriations generate more short term revenues than restrictions on capital repatriation. To the extent the government has a short time horizon, it is more willing to expropriate, but expropriating is more politically costly than seeking transfer rents. Governments that are more constrained politically by veto players and heterogeneous preferences of political actors are less able to pursue costly expropriations. Constrained governments are more sensitive to issue saliency (voter preference) and domestic distributional politics (domestic costs) because they have a more tightly bounded set of outcomes (e.g. a smaller win set or a larger unanimity core, see Tsebelis 2002). The political costs of changing policy on widely salient issues that harm domestic interests

are much higher in these cases and thus much less likely. Less constrained governments, on the other hand, have a wider range of possible policy outcomes (e.g. larger win set), and there are fewer political costs to the government for instituting widely salient policies that negatively affect domestic interests. Accordingly, the level of the government's political constraints determines its relative preference for transfer rents and expropriation rents. Less constrained governments are more likely to favor expropriation over transfer rents, and vice-versa (see Figure 3).

Thus, while an increase in political constraints ( $C \rightarrow C'$ ) provides disincentives for both expropriation and transfer risk, it incentivizes  $G$  to prefer transfer risk over expropriation for a larger set of investment projects. Our second empirically testable hypothesis can be stated as follows:

***Hypothesis 2:** Countries with higher levels of domestic political constraints will be more likely than other countries to choose transfer rents over expropriation rents.*

More broadly, this logic suggests that, while increasing political constraints improves the overall risk environment, these improvements are not equal across risk types (i.e. transfer risk is elevated relative to expropriation risk). In the next section we test these hypotheses using a data set from the political risk insurance industry.

## **3 Research Design**

### **3.1 Testing Hypothesis 1**

Hypothesis 1 states that higher levels of transfer risk cause smaller inflows of FDI. This claim is relatively uncontroversial, but establishing this relationship empirically is necessary to establish the substantive importance of transfer risk as a de-

terrent to FDI flows into developing countries. To assess the effect of transfer risk on flows of FDI, we estimate the effect of a change in the level of on the change in FDI inflows, and we do so in a model that also estimates the effect of changes in the risk of war and adverse government action. Because different types of political risk are generally highly correlated with one another, it is important to establish the independent effect of transfer risk within a model that also addresses these other risks.

We first conduct this analysis on annual data, where each variable is specified as the change in value from year  $t - 1$  to year  $t$ . However, the effects of political risk on investment flows may manifest themselves with some delay. FDI is considered to be slow-moving relative to other flows of foreign capital (e.g. Shambaugh 2004; Ahlquist 2006) and it takes time for firms to either expand investments in response to improving conditions or scale back investments in response to deteriorating conditions. Therefore, the level of investment in year  $t$  is affected not just by the level of risk in year  $t$ , but also in previous years. To account for the slow-moving nature of FDI, we also examine the effect of the change in risk on the change in investment flows from one three-year block of data to the next. We first take the mean value (in levels) of each variable in three year period, and then calculate the difference from one period to the next.

The baseline specification is given as follows, where time is measured either in years or in three-year periods:

$$\Delta Y_{it} = \alpha + \beta_1 \Delta Risk_{it} + \beta_2 \Delta OtherInvestment_{it} + \epsilon_{it}$$

$\Delta Y_{it}$  is the change in investment from from  $t-1$  to  $t$ ,  $\alpha$  is a constant,  $\Delta FDI_{it}$  is the change in investment flows to all other developing countries between  $t-1$  to

*t*. By specifying in changes, we are able to account for the effect of all unobserved time-invariant differences between countries that might confound the relationship between risk and investment flows. By controlling for the total flows of investment to all developing countries (except country *i*), we control for unobserved factors that affect the supply of capital to developing countries generally, allowing us to focus narrowly on the factors driving investors to choose country *i* over alternative destinations.  $\epsilon_{it}$  is the error term.

### 3.2 Testing Hypothesis 2

To test Hypothesis 2, it is necessary to assess the effect of political constraints on the ratio of transfer risk to total political risk. In the primary analysis, the dependent variable, *ratio*, is calculated as  $ratio = \frac{transfer\ risk}{transfer\ risk + war\ \&\ government\ risk}$ . An alternative dependent variable, *ratio2*, is calculated as  $ratio = \frac{transfer\ risk}{transfer\ risk + government\ risk}$ . This alternate dependent variable has the advantage of more precisely measuring the government's decision to choose to impose one type of risk on investors as opposed to another. However, because data on government risk is only back to 2002, there are only 6 years of data in the panel analysis. Results using this alternative dependent variable are presented in the Appendix.

When testing H2, we include controls for the extensiveness of capital controls – i.e. the presence or absence of various categories of restrictions on capital mobility. We do not, however, control for the intensity of these restrictions, as that would control directly for the realization of transfer risk itself. Controlling for the extensiveness of capital controls effectively controls for whether the government has in place the tools to use transfer risk as a means of expropriation if it so chooses. We also control for exchange rate stability and monetary independence, which help capture variation in the degree to which elected officials are likely to face macro-

economic incentives to engage in inflationary policy or enact capital controls.

## 4 Data and Sample

For all analyses, we follow convention and restrict the sample to developing countries only.<sup>15</sup> Data on net FDI inflows is drawn from the World Development Indicators (WDI).<sup>16</sup>

Because we are interested in assessing the causal effect of political risk on FDI flows, and because FDI inflows at time  $t-1$  are an excellent predictor of FDI flows at time  $t$ , we use changes in investment from time  $t-1$  to time  $t$  as the dependent variable in most models. Because the data is over-dispersed, we use a logged DV. To avoid dropping rare negative and frequent zero values, the latter of which are frequent, this logged DV is created as  $\Delta FDI(\text{logged}) = \pm \ln|(\Delta FDI + 1)|$ .

Data on political risk is drawn from the Belgian export credit agency Office National Du Ducroire (ONDD). ONDD is the world's largest political risk insurer and the price leader in the industry and its assessments of risk reflect not only capital-motivated expert attempts to assess risk, but also the actual insurance costs paid by firms who wish to invest without shouldering the burden of political risk themselves. ONDD data are used in a similar context by Jensen (2008) and Graham (2010).

ONDD scores each country in three categories: war risk; government risk, which is the risk of expropriation or adverse government action; and transfer risk, which

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<sup>15</sup>To eliminate problems that would arise with countries entering or exiting the sample over time, we define developing countries as those with less than 8500 *GDPpercapita* (constant 2000 dollars) in 1985. This approximates the World Bank threshold between upper-middle income and high-income countries. Restricting our analysis to developing countries is widely accepted (Bloningen and Wang 2005).

<sup>16</sup>FDI measures between the two sources are correlated at .93, while portfolio investment measures are correlated at .82.

refers to the risk that action by foreign authorities, such as the introduction of capital controls or other constraints, prevents the transfer of capital back to the investor's home country. From 2002-2010 these three classifications of risk are all coded annually on a seven-point scale.<sup>17</sup> From 1992-2001, war and government action risks were combined and measured annually on a single five-point scale (*war&government risk*). To extend coverage for *war&government risk* forward in time, we score *war&government risk* as  $\frac{warrisk+governmentrisk}{5/14}$ .<sup>18</sup> From 1994-2010 transfer risk is measured on a seven-point scale, so no adjustment is necessary. The ONDD data is available for 144 developing countries in 1994, but this expands to 155 countries by 2010, producing an unbalanced panel.

Data on country *i*'s gross domestic product (GDP), GDP per capita, population, natural resource exports, and trade volume are taken from the World Development Indicators. The measures of the business environment are taken from the World Bank's Doing Business Indicators. Data on BITs comes from Allee and Peinhardt (2010) and Hicks and Johnson (2011). Education data is drawn from Barro and Lee (2010). Data on capital account openness, exchange rate stability, and monetary independence are drawn from Chinn and Ito (2008).

Tables of summary statistics are available in the Appendix.

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<sup>17</sup>While risk data are issued annually, a team at ONDD meets four times per year to update risk evaluations, addressing  $\frac{1}{4}$  of countries (by region) in each meeting. However, if events justify it, a country's risk rating may be revised at a meeting in which it is not otherwise scheduled to be discussed, allowing the potential for multiple revisions during a year (Jensen 2008). Therefore, the score given to a country for any given year will reflect any major changes that occurred during that year prior to ONDD's last meeting of the year. Therefore, the annual measure of risk assigned by ONDD can best be interpreted as the level of risk in Q4 of the year in question.

<sup>18</sup>The standard deviation of *war&government risk* is 1.22 prior to the change in methodology in 2002, and 1.08 thereafter.

## 5 Empirical Analysis

Hypothesis 1 states that transfer risk has a negative effect on FDI inflows. Because transfer risk and other types of political risk are correlated, we included  $\Delta war\&governmentrisk$  as a control variable in all models. Table 1 presents the results of the analysis conducted on both annual data (Models 1-4) and three-year blocks of data (Models 5-8). In models 1-4, variables are specified as the change in value from year  $t - 1$  to year  $t$ , while in models 5-8, the variables are specified as the change in value from period  $t$  to period  $t$ , where the periods are three-year blocks of time.

Consistent with Hypothesis 1, the relationship between  $\Delta transferrisk$  and  $\Delta FDI(logged)$  is negative across all eight models; an increase in transfer risk is associated with a decrease in FDI inflows. The size of the effect is also substantively large. A one standard deviation increase in transfer risk is associated with a 133% decrease in FDI.<sup>19</sup>

Model 1 presents the raw relationship between changes in political risk and changes in investment flows. Model 2 adds  $\Delta FDItoOtherDevelopingCountries$ , which controls for fluctuations in the global supply of FDI to developing countries. Model 3 adds controls for changes in educational attainment and trade volume. Model 4 adds controls for changes in GDP and GDP per capita. These variables are useful because they control for the overall state of the host country economy, which may affect both the level of transfer risk and the level of FDI inflows. However, because the overall state of the host country economy is also affected by political risk, the inclusion of these variables in the model also masks some of the direct effect of political risk on FDI flows. Models 5-8 mirror Models 1-4 exactly, but using

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<sup>19</sup>Based on Model 7, Table 1.

Table 1: Political Risk and Investment Inflows

	Models 1-4 on Annual Data				Models 5-8 on 3-yr Blocks of Data			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\Delta$ Transfer Risk	-3.171*** (1.096)	-2.565** (1.121)	-3.234*** (1.203)	-2.155** (1.191)	-4.510*** (1.302)	-3.001** (1.333)	-3.347*** (1.438)	-2.096* (1.494)
$\Delta$ War and Government Risk	0.427 (1.069)	-0.007 (1.066)	0.141 (1.177)	0.474 (1.180)	-4.141*** (1.599)	-4.347*** (1.539)	-4.385*** (1.720)	-3.868** (1.777)
$\Delta$ FDI to Other Developing Countries		3.602*** (0.549)	3.114*** (0.627)	2.761*** (0.633)		4.156*** (0.588)	4.347*** (0.658)	4.007*** (0.685)
$\Delta$ Education			1.637 (7.640)	-0.148 (7.651)			2.519 (4.405)	1.551 (4.338)
$\Delta$ Trade (% of GDP)			0.242*** (0.055)	0.212*** (0.053)			0.175*** (0.066)	0.158*** (0.065)
$\Delta$ GDP Per Capita (logged)				0.720*** (0.267)				0.984*** (0.359)
$\Delta$ GDP (logged)				0.013 (0.063)				-0.058 (0.096)
Constant	3.303*** (0.448)	2.908*** (0.449)	2.684*** (0.851)	0.979 (1.010)	5.472*** (0.805)	4.286*** (0.822)	2.862** (1.435)	1.262 (1.696)
Observations	1753	1753	1421	1398	555	555	456	449
$R^2$								

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < .01$ Dependent variable is  $\Delta$  FDI (logged).

Sample restricted to developing countries only.

three-year blocks of data instead of annual data.

The negative relationship between  $\Delta transferrisk$  and  $\Delta FDI(logged)$  is significant at the .05 level in seven out of eight models. Only in model 8, which includes controls for changes in the overall state of the host country economy, is the result somewhat weaker, registering significance only at the .1 level. Taken together, these findings are strongly supportive of Hypothesis 1.

## 5.1 Testing Hypothesis 2

Hypothesis 2 states that more constrained governments are more likely to choose transfer rents over expropriation rents. If more constrained governments choose transfer rents over expropriation rents, then countries with higher levels of constraints should be characterized by a higher ratio of transfer risk to total political risk. Table 2 presents a variety of models testing the strength of this relationship.

Table 2: The Effect of Political Constraints on the Ratio of Transfer Risk to Total Political Risk

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Political Constraints (Henisz)	0.068*** (0.010)	0.101*** (0.013)	0.107*** (0.014)	0.016** (0.007)	0.067*** (0.020)	0.097*** (0.029)	0.106*** (0.028)	0.052*** (0.018)
GDP Per Capita (logged)		-0.009 (0.007)	-0.009 (0.007)	-0.005** (0.002)		0.039 (0.052)	0.049 (0.053)	0.014 (0.029)
Log of Population (Market Size)		-0.023*** (0.005)	-0.024*** (0.005)	-0.007*** (0.001)		0.007 (0.108)	0.027 (0.112)	-0.007 (0.064)
Education		0.000 (0.003)	-0.001 (0.003)	0.000 (0.001)		-0.023 (0.021)	-0.028 (0.021)	-0.016 (0.010)
Trade Volume (logged)		-0.022* (0.013)	-0.028** (0.014)	-0.003 (0.005)		-0.035 (0.029)	-0.049 (0.030)	-0.023 (0.020)
Natural Resources as % of Exports		0.089 (0.160)	-0.052 (0.185)	-0.071 (0.056)		0.078 (0.382)	-0.261 (0.451)	-0.319 (0.236)
BITs (logged)			0.001 (0.005)	0.000 (0.002)			0.002 (0.007)	0.001 (0.004)
Capital Account Openness			0.405 (0.270)	0.125 (0.128)			0.196 (0.552)	0.247 (0.310)
Exchange Rate Stability			-0.028*** (0.011)	-0.012** (0.006)			-0.036** (0.017)	-0.024** (0.010)
Monetary Independence			0.017 (0.013)	-0.003 (0.009)			0.018 (0.019)	0.003 (0.013)
Lagged DV				0.798*** (0.022)				0.572*** (0.034)
Country Fixed Effects	NO	NO	NO	NO	YES	YES	YES	YES
Year Dummies	NO	YES	YES	YES	NO	YES	YES	YES
Constant	0.556*** (0.007)	0.888*** (0.078)	0.920*** (0.080)	0.218*** (0.034)	0.555*** (0.009)	0.543 (1.822)	0.252 (1.892)	0.451 (1.071)
Observations	1510	1047	999	937	1510	1047	999	937
R <sup>2</sup>					0.025	0.096	0.120	0.412

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < .01$

Sample restricted to developing countries only.

Dependent Variable is the ratio of transfer risk to total political risk.

Consistent with Hypothesis 2, all eight models in Table 2 show a positive relationship between the level of constraints on the executive and the ratio of transfer risk to total political risk. This is consistent with the theoretical expectation that more heavily constrained executives are more likely to choose to extract transfer rents, rather than engage in creeping expropriation. The effect is also substantively large: a one standard deviation increase in political constraints over time is associated with a 0.34 standard deviation rise in the ratio of transfer risk to total political risk.<sup>20</sup>

Models 1-4 are all random-effects linear panel models. Model 1 presents the raw relationship between *political constraints* and ratio. Model 2 adds additional controls, including economic and labor force characteristics and year dummies to account for time effects. Model 3 adds controls for exchange rate stability, monetary independence, and capital account openness, and Model 4 adds a lagged dependent variable.

Models 5-8 are panel models with country fixed effects. These assess whether a change in the level of political constraints in a given country over time is associated with a change in the ratio of transfer risk to expropriation risk, and is more suitable for causal inference. Unlike the impact of risk on investment, which may manifest itself over several years, the effect of political constraints on political risk is expected to manifest itself immediately, hence the use of annual data in this analysis.

Models 5 and 8 include a one-year lag of the dependent variable as a regressor, and the core result is robust to this inclusion. The lagged dependent variable reduces the possibility that observed effects are driven by endogeneity. However, it is important to note that a lagged dependent variable in a linear panel regression with fixed effects introduces Nickel bias. Stated simply, Nickel bias arises from the

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<sup>20</sup>Based on Model 7, Table 2.

difficulty of distinguishing whether variation is explained by the fixed effects (i.e. the country-specific intercept) or the lagged DV.<sup>21</sup> However, the fact that the negative relationship between *political constraints* and *ratio* is robust to the inclusion of a lagged DV is consistent with the hypothesized causal relationship, i.e. that political constraints induce executives to choose transfer rents over creeping expropriation.

The effects of a number of the control variables change dramatically when country fixed-effects are added. Most notably, the effects of market size and GDP per capita are negative in the random-effects analysis in Table 2 and positive or neutral in the fixed effects models (Models 6-8). This indicates that, controlling for constraints and other variables, wealthier and more populous countries tend to have governments that choose more expropriation relative to transfer rents, while an increase in wealth and, to a lesser degree, population over time are associated with governments engaging in less expropriation relative to transfer rent collection.

Results using alternative measure of the dependent variable, which excludes was risk from the measure of total risk, are available in the appendix. Point estimates are similar across all models, but with the smaller sample size, the effect of *political constraints* is only significant at the 0.1 level in the models that include the lagged DV.

## 5.2 Implications of Results

The evidence presented in support of Hypothesis 1 is not particularly controversial. We show that higher levels of transfer risk result in lower inflows of FDI, something entirely consistent with theoretical understandings of investor response to political risk. Of greater interest is the fact that, when looking at year-on-year changes,

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<sup>21</sup>Nickel bias is particularly acute in short panels (i.e.  $t < 15$ ), and this panel contains an average of 4.4 observations per unit.

the effect of  $\Delta war \& government risk$  are negligible, while the effect of changes in  $\Delta transferrisk$  are substantial. When looking at longer periods of time – appropriate for slower-moving investment flows – the effects of  $\Delta transferrisk$  are very similar in magnitude to the those of  $\Delta war \& government risk$ . This is consistent with our argument that transfer risk is an important category of political risk that drives international flows of investment.

There are several plausible interpretations of the fact that the effects of  $\Delta transferrisk$  are observable in the annual specification while the effects of  $\Delta war \& government risk$  are not. One possibility is that investors respond to changes in transfer risk more quickly than to changes in other political risks because actions involving the movement of liquid assets (and achievable on a short timeline), such as the transfer of cash balances from host-country accounts to home-country accounts, can reduce a firm's exposure to transfer risk, but they cannot reduce the firm's exposure to war risk or risk of creeping expropriation. The type of actions necessary to avoid those risks are more likely to involve the removal or sale of physical assets, something that takes more time.

The tests of Hypothesis 2 provide support, across a wide range of specifications, for the theoretical expectation that increased constraints on the executive cause governments to opt for the collection of transfer rents over engaging in creeping expropriation. These results hold up in specifications with country-fixed effects and are robust to the inclusion of a lagged dependent variable. Humility is always necessary when attempting to make causal inference on the basis of observational data. However, the tests presented here put our (causal) theory at substantial risk of falsification, and we fail to falsify it. It remains possible that our findings can be attributed to omitted variable bias or some other confound, but we do not consider it likely.

## 6 Conclusion and Future Research

Scholars in political science, business, and economics have developed a rich understanding about the risk of expropriation. In comparison to expropriations, which are less frequent, transfer risk is the more common political risk, often a larger concern to foreign investors, but also much less understood. In our theory, formal model, and empirical results, we strive to build a foundation for the study of both the causes and effects of transfer risk.

The first contribution of this paper is to establish that, while war risk and expropriation risk dominate the literature on political risk and foreign investment, transfer risk has as large independent effect on flows of foreign investment to developing countries. Finding that transfer risk matters doesn't invalidate work on war and expropriation; it merely suggests that the story is incomplete without the addition of transfer risks. Economists may find this less surprising than political scientists, who tend to favor stories of outright politics (e.g. war or expropriation) over stories that are seemingly economic (e.g. capital controls). Yet transfer risk is fundamentally a political story that plays out first in government policy decisions and then in capital flows.

The second contribution is to introduce a theory of transfer risk as the *outcome* of deliberate policy action by the host government. In particular, we identify how expropriations and the collections of transfer rents are strategic means for governments to seize rents from foreign investors. Expropriations generate more substantial short term revenues than stricter restrictions on capital repatriation, which makes governments more *willing* to expropriate, all else being equal. But expropriating is more politically costly than seeking transfer rents. Expropriations have high political salience and are opposed by domestic interests, whereas transfer policies

have narrow political salience and provoke little domestic opposition. The costs of expropriating are thus more pronounced for more constrained governments. Governments that are more constrained politically by veto players and heterogeneous preferences of political actors are less *able* to pursue costly expropriations. We show empirically that more constrained governments are more likely to choose transfer rents over expropriation rents.

Given the nascent stage of research on transfer risk, there remain a variety of questions to drive future research. For example, how does transfer risk affect the balance of a country's capital flows? Are there systematic differences in effect across different foreign investors? When investors craft strategies to avoid transferability or expropriation risks, does this exacerbate or reduce exposure to other risks? How does the relative prevalence of different types of investment in a country affect governments' decisions regarding the means through which they collect rents from foreign investors? How does the prevalence of bank debt in an economy constrain governments' ability to use capital controls during currency crises? Can the field move toward a more comprehensive model of political risk and foreign investment?

We hope that, by establishing the substantive importance of transfer risk, and by advancing and testing theory regarding governments' choice between the collection of transfer rents and the collection of rents via creeping expropriation, we have laid the groundwork for a new research agenda in this area.

## Author Biographies

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**Allison F. Kingsley** (Ph.D. Columbia University, M.S.L. Yale Law School) is Assistant Professor at the University of Vermont School of Business Administration. Her research focuses on investor strategies to manage political risk in emerging markets. Prior to joining UVM in Fall 2010, she worked on Wall Street for nearly a decade executing emerging market transactions for banks and buy-side firms.

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Table 3: Summary Statistics for Annual Data in Levels

Variable	Mean	Std. Dev.	Min.	Max.	N
FDI (USD)	1825698097.64	8549575020.223	-41989243206	1850000000000	2849
FDI (logged)	16.752	8.842	-24.461	25.944	2849
Political Constraints (Hemisz)	0.369	0.314	0	0.895	2182
Ratio	0.582	0.092	0.252	0.825	1937
Ratio2 (No War Risk)	0.562	0.089	0.271	0.788	1111
War Risk (ONDD)	1.925	1	0.636	4.453	1229
Risk of Adverse Gov. Action (ONDD)	2.27	1	0.624	4.368	1111
War & Government Risk (ONDD)	2.19	1	0.613	4.294	2129
Transfer Risk (ONDD)	2.978	1	0.579	4.054	2628
Population, total	33049226.161	131435190.361	9103	1338299512	3002
Log of Population (Market Size)	15.397	2.135	9.116	21.015	3002
GDP Per Capita (1000s of USD)	2.913	6.777	0.058	108.111	2859
GDP per Capita (logged)	0.247	1.264	-2.851	4.683	2859
GDP (constant 2000 US\$)	50911697419.816	175300393080.512	10973309.99	3250000000000	2859
GDP (logged)	22.546	2.113	16.211	28.81	2859
Trade (share of GDP)	0.838	0.397	0.002	2.804	2696
Natural Resources as % of Exports	0.023	0.027	0	0.1	1945
Monetary Independence	0.457	0.181	0	0.968	2503
Exchange Rate Stability	0.616	0.332	0.001	1	2714
Capital Account Openness	-0.001	0.014	-0.018	0.025	2519
Education	6.343	2.798	0.406	13.092	2127
BITs count	1.798	5.523	0	60	3110
BITs (logged)	0.437	0.833	0	4.111	3110

Table 4: Summary Statistics for Annual Data, Specified in Differences

<b>Variable</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min.</b>	<b>Max.</b>	<b>N</b>
Δ FDI (Millions of USD)	500951526.742	28360582617.743	-74000006144	609999978496	4999
Δ FDI (logged)	3.029	17.131	-27.33	27.137	4999
Δ FDI to Other Dev. Countries	0.073	0.561	-1.48	1.554	4999
Δ FDI to Other Dev. Countries (logged)	11.019	22.818	-28.023	28.072	4999
Δ Transfer Risk	-0.032	0.401	-3	3	2470
Δ War&Government Risk	-0.058	0.461	-3	3	1998
Δ War Risk	0.022	0.487	-3	2	1076
Δ Government Risk	-0.036	0.433	-2	2	980
Δ Education	0.097	0.069	-0.295	0.487	4480
Δ Trade (% of GDP)	0.617	11.667	-135.395	129.619	5019
Δ GDP Per Capita	68.866	347.317	-2963.775	12454.419	5281
Δ GDP Per Capita (logged)	1.703	3.598	-7.995	9.43	5281
Δ GDP (Constant 2000 USD)	11068042596.189	80378715536.297	-1199999942656	1100000002048	5282
Δ GDP (logged)	12.583	14.885	-27.813	27.726	5282

Table 5: Summary Statistics for 3-yr Blocks of Data, Specified in Differences

Variable	Mean	Std. Dev.	Min.	Max.	N
Δ FDI (Millions of USD)	2411270481.497	55094065203.879	-548000006144	774666649600	791
Δ FDI (logged)	6.34	17.826	-27.03	27.376	791
Δ FDI to Other Dev. Countries	0.373	1.181	-1.313	2.138	791
Δ FDI to Other Dev. Countries (logged)	5.417	27.017	-27.903	28.391	791
Δ Transfer Risk	-0.087	0.594	-2.333	3	774
Δ War&Government Risk	-0.052	0.476	-2	2	569
Δ War Risk	0.056	0.651	-2.667	2	388
Δ Government Risk	-0.098	0.591	-2	4	364
Δ Education	0.254	0.173	-0.499	1.461	565
Δ Trade (% of GDP)	1.378	14.296	-73.272	93.089	738
Δ GDP Per Capita	272.111	892.703	-1756.957	17379.107	788
Δ GDP Per Capita (logged)	3.238	3.559	-7.472	9.763	788
Δ GDP (Constant 2000 USD)	33340700859.581	222702536971.589	-533333344256	2233333448704	788
Δ GDP (logged)	16.914	11.822	-27.002	28.435	788

Table 6: Correlation Between Different Risk Types in Levels

Variables	Transfer	War and Gov.	War	Adverse Gov. Action
Transfer Risk	1.000			
War and Government Risk	0.648	1.000		
War Risk	0.605	0.949	1.000	
Risk of Adverse Gov. Action	0.705	0.950	0.803	1.000

Note: Annual data.

Table 7: Correlation Between Different Risk Types, in Changes

Variables	$\Delta$ Transfer	$\Delta$ War and Gov.	$\Delta$ War	$\Delta$ Adverse Gov. Action
$\Delta$ Transfer Risk	1.000			
$\Delta$ War and Gov. Risk	0.139	1.000		
$\Delta$ War Risk	0.121	0.697	1.000	
$\Delta$ Risk of Adverse Gov. Action	0.177	0.703	0.360	1.000

Note: 3-year blocks of data.

Table 8: The Effect of Political Constraints on the Ratio of Transfer Risk to Total Political Risk (Alternate DV)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Political Constraints (Henisz)	0.074*** (0.017)	0.095*** (0.020)	0.091*** (0.021)	0.027** (0.011)	0.061* (0.037)	0.088* (0.045)	0.090** (0.044)	0.052* (0.031)
GDP per Capita (logged)		-0.011 (0.008)	-0.018** (0.009)	-0.000 (0.003)		0.009 (0.073)	0.022 (0.075)	0.069 (0.081)
Log of Population (Market Size)		-0.033*** (0.005)	-0.031*** (0.006)	-0.008*** (0.002)		-0.142 (0.259)	-0.027 (0.251)	0.048 (0.240)
Education		0.005 (0.003)	0.004 (0.004)	0.001 (0.002)		-0.006 (0.034)	-0.010 (0.033)	-0.020 (0.036)
Trade Volume (logged)		-0.042*** (0.016)	-0.045** (0.017)	-0.005 (0.008)		-0.074* (0.040)	-0.071* (0.043)	-0.076* (0.040)
Natural Resources as % of Exports		-0.376* (0.202)	-0.402* (0.228)	-0.203** (0.082)		-0.480 (0.492)	-0.628 (0.650)	-0.347 (0.566)
BITs (logged)			0.007 (0.005)	-0.001 (0.003)			0.011* (0.006)	0.006 (0.005)
Capital Account Openness			1.070** (0.484)	-0.279 (0.185)			2.892*** (0.865)	0.965 (0.900)
Exchange Rate Stability			0.007 (0.014)	-0.008 (0.009)			0.012 (0.021)	0.026 (0.025)
Monetary Independence			-0.011 (0.016)	0.011 (0.012)			-0.003 (0.023)	-0.006 (0.023)
Lagged DV				0.795*** (0.034)				0.316*** (0.089)
Country Fixed Effects	NO	NO	NO	NO	YES	YES	YES	YES
Year Dummies	NO	YES	YES	YES	NO	YES	YES	YES
Constant	0.535*** (0.008)	1.025*** (0.084)	1.006*** (0.094)	0.233*** (0.045)	0.539*** (0.015)	2.897 (4.364)	0.994 (4.235)	-0.358 (3.999)
Observations	702	491	472	391	702	491	472	391
R <sup>2</sup>					0.016	0.071	0.122	0.210

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < .01$

Dependent Variable is the ratio of transfer risk to total political risk, with war risk excluded.

Sample restricted to devleoping countries only.