Crisis and Contract Breach: The Domestic and International Determinants of Expropriation

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Abstract

In this paper we address how external factors shape government decisions to break or uphold contracts, specifically focusing on how economic shocks shape leader decisions to expropriate from investors. Contrary to the conventional wisdom, we argue that governments are less likely to expropriate from investors during periods of economic crisis since governments become more sensitive to the reputation costs of expropriating. We also argue that governments are sensitive to the levers other governments may use to punish for expropriation, such as IMF funding. We test these theories using two datasets on investment expropriations and case studies. Our empirical results suggest that expropriations of foreign investment are less common during periods of crisis, and that countries that are under IMF agreements are much less likely to expropriate. Our case studies of 34 investment disputes that did not escalate to an expropriation confirm our statistical results.

Political science scholarship examining the political economy of foreign direct investment (FDI) has focused on how the political risks facing multinational enterprises affect investment location choice. Multinational enterprises operating in foreign markets are exposed to many potential risks, ranging from outbursts of political violence, government restrictions on the repatriation of capital, and regulatory uncertainty.[1] While relatively rare, government choices to expropriate from investors or breach contracts with firms are often the most important risks for firms operating abroad (MIGA 2012). Firms either avoid countries with propensities to expropriate or are forced to engage in costly activities to insure their investments or limit the ability or incentive of governments to renege on contracts post-investment.[2]

Political science research has focused on how cross-national factors, such as the level of democracy, quality of courts or international agreements affect political risks for multinational enterprises and affect flows of FDI.[3] In the next section we briefly review this literature but our main point is that despite this scholarly attention to FDI, we have a very limited understanding of the over-time factors influencing government decisions to break contracts with multinationals. What explains the waves of expropriations in the 1960s and 1970s and the new series of investment disputes in the past ten years?

While much of the conventional wisdom on patterns of expropriation is based on economic crisis triggering investment disputes, we argue that existing theoretical and empirical work on trade and investment liberalization actually supports the association between periods of financial crisis and market friendly policies. Rather than predicting expropriations of investment during crisis, we predict that expropriations are less likely during periods of crisis. We document two mechanisms linking crisis with lower propensity to expropriate. First, governments' concerns about the reputational consequences of expropriation are greater during periods of crisis. Second, investors can directly or indirectly employ their home governments to pressure expropriating countries. This includes the suspension of foreign aid and blocking of World Bank and International Monetary Fund (IMF or Fund) loans.

While our model is general enough to link different types of crisis and foreign intervention

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[1] For an overview see Jensen (2006).

[2] One strategy is to engage in joint ventures with local firms. See Henisz (2000).

[3] For an overview see Jensen et al. (2012).

to lower levels of expropriation, we focus specifically on how financial crisis and dependence on IMF loans affect expropriation behavior. We test this relationship using two quantitative datasets and one case study. The first dataset is a count of all known expropriation events from 1971 to 2006 that has been used by political scientists and management scholars. We note that although this dataset is problematic for modeling expropriation decisions, it is a good starting point for exploring how patterns of expropriation map onto our hypothesis.

The direct test of our hypothesis is contract level data from the United States Overseas Private Investment Corporation (OPIC). This dataset allows us to examine 2,602 contracts covering investments in 93 high risk countries from 1973 to 2008. Our empirical findings are inconsistent with work highlighting the role of financial crisis in triggering expropriations. Our results suggest that governments are less likely to break contracts with multinationals during periods of economic crisis. Relatedly, we also find strong support for our theory on the role of international factors constraining expropriation behavior. We show that countries that are currently under IMF agreements are much less likely to engage in expropriations.

While expropriation was common in the 1960s and 1970s, our descriptive data show that expropriation behavior has declined over time although a few high profile expropriations have occurred since the 1990s. Thus one limitation of observational studies of expropriation is that we may be identifying patterns based on a small number of cases of expropriation. Fortunately, we have access to data on a large number of investment disputes between investors and governments that did not result in a full expropriation, but allow us to provide additional tests of our hypotheses. Our final empirical contribution is the exploration of 34 cases of "pre-claims" from the Multilateral Investment Guarantee Agency (MIGA). Our case studies of these 34 World Bank insured projects are all events where host governments originally took positions that lead to concerns of potential expropriation of investments. In all 34 cases, an expropriation claim was avoided, usually through the government modifying their position towards the firm. We document that the majority of these cases were due to concerns about the reputation of government, or direct pressure from the IMF, World Bank, or powerful governments. These case studies also provide evidence of the interactive effect of crisis and multilateral support on expropriation behavior.

Our findings fit into a broader literature in political science. Academics have long debated

how international market forces shape domestic policy choice. While the research is nuanced, two broad camps have emerged in political science, with one set of studies focusing on how international market forces discipline governments (efficiency theories), forcing governments to enact neoliberal economic policies. For example, Rudra (2008) finds that the market disciplining effects of trade and capital mobility are especially prevalent in government social security programs. Others, such as Garrett (1998), argue that the disrupting influence of globalization can lead to greater levels of government intervention. While there is scant evidence for a "race to the bottom" in many policy areas across countries, our research suggests that economic crisis does have a disciplining effect on governments.[4] Governments that are the most prone to engage in expropriations become less likely to engage in such behaviors during periods of economic crisis.

Our paper proceeds as follows: The next section provides a general overview of the existing literature on political risks and expropriation of investments. We then introduce our theory on the relationship between economic crisis and expropriation. In the following two sections we introduce our research designs, data, estimation strategies and results. We present our MIGA pre-claims cases afterwards. The final section concludes.

Multinational Corporations and Investment Expropriations

Research on the relationship between multinational corporations and domestic politics has seen a revitalization in recent years. This is partially driven by the explosion by investments of multinational enterprises, foreign direct investment (FDI) (UNCTAD 2008). Much of this research has focused on government decisions to expropriate or nationalize the investments and income streams of multinational corporations. Government expropriations come in a number of forms. These events can be massive, country-wide expropriations that are coupled with regime changes such as the fall of the Shah in Iran and the nationalization of businesses in Cuba. Or these expropriations can be targeted at specific sectors or even individual firms. Recent expropriations tend to fall under the banner of "creeping expropriation," where governments use selective enforcement of laws to expropriate the assets or income streams of firms (Kobrin 1979, 1980, 1984; Jodice 1980; Jensen 2006).

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[4]For an overview see Rudra (2008).

Whatever the form of expropriation, academic interest in the political risks facing firms may also be due to the complex pattern of tensions between governments and business that have ebbed and flowed over time. Waves of government expropriations in the 1960s and 1970s, some as extreme as the mass nationalizations in Iran and Cuba, were followed by a period of calm in the 1980s (Vernon 1998). The warming of governments towards multinational corporations and the steep reductions in expropriations lead some scholars to predict a permanent change in the patterns of government expropriations (Minor 1994).

This optimism has been shaken with recent expropriations of investments in Argentina, Bolivia and Venezuela, and major regulatory changes that breached contracts in Russia. In a survey of executives, MIGA (2012) finds that 37% and 9% of respondents had directly experienced a breach of contract or expropriation respectively in past three years. Executives also claimed that the potential for breach of contract and expropriations had a very high or high impact on firm operations in 57% and 34% respondents respectively.

Thus, while rare, expropriations are extremely important to firms, and we only have a limited understanding of what triggers expropriation events. One common theme in political science scholarship is the role of democratic institutions in affecting political risks. Jensen (2003) and Li and Resnick (2003) examine the impact of democratic institutions on FDI flows. While Jensen (2003) argues that democratic institutions increase FDI flows, Li and Resnick (2003) show that this increase is through democracies having a stronger rule of law. Other aspects of democracies, for example stronger anti-monopoly laws, reduce FDI flows.

More recently, scholars have attempted to measure expropriation behavior more directly. Jensen (2008) uses political risk insurance pricing to examine how political institutions influence expropriation risk. He finds that constraints on the executive in democratic regimes are the key feature reducing political risks. Li (2009) examines expropriation events, showing that while democracies and authoritarian regimes both engage in expropriations, democracies have lower propensities to expropriate.

Democracy is not the only set of institutions capable of constraining elites. Staats and Biglaiser (2012) conduct an original survey of investors operating in Latin America, finding that judicial institutions have a major impact on political risks. The recent explosion of bilateral investment treaties (BITs) is partially attributed to their ability both to signal openness to FDI

and to constrain governments from reneging on contracts.[5]

Yet these projects are limited in their ability to explain the puzzles on the timing of expropriations. Why is it that some high risk countries offer protections to foreign investors, while at other times they choose to expropriate? What time-varying factor explains these decisions to expropriate or to uphold contracts?

An excellent starting point to address this question is a classic paper on expropriation by Cole and English (1991). In a formal model of government decision-making, they examine government decisions to expropriate based on a cost benefit analysis of the current benefits of expropriation minus the future investment losses. Their theoretical model does not provide a clear prediction. On the one hand, risk accepting governments will often expropriate investments, specifically in the natural resource sector, when output prices are high. This is labeled "opportunistic" expropriation. On the other hand, certain levels of risk aversion can lead governments to expropriate when output prices are low. These are labeled "desperation" expropriations.

Recent evidence has suggested that these "desperation" expropriations of FDI are common. Wells and Ahmed (2007) document a number of investment disputes, linking many of these disputes to economic crisis. In many cases, infrastructure investments become unviable in the wake of major financial crisis. Petrova and Bates (2012) argue that economic shocks can trigger increased political risks, although this is pronounced in intermediate regimes (neither fully democratic nor fully autocratic).

Despite these cases of expropriation during times of economic distress, alternative arguments have emphasized the role of markets in tempering government decisions. In a highly contentious area of research, scholars have used similar arguments linking economic crisis to neoliberal reforms. Haggard and Maxfield (1996) argue that governments often liberalize their capital account during periods of crisis, signaling a pro-market position of the government. Similar arguments have been made about the role of economic crisis in triggering neoliberal reform more generally (Abiad and Mody 2003; Biglaiser and DeRouen 2004).

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[5]Kerner (2009) provides an excellent overview and empirical test of these signaling and constraining aspects of BITs. See Guzman (2006) for a classic study on the diffusion of BITs. See Yackee (2008) and Allee and Peinhardt (2010) on the variation in dispute mechanisms across BITs. See UNCTAD (1998), Neumayer and Spess (2005), Salacuse and Sullivan (2005), and Kerner (2009) for published studies of the impact of BITs on FDI.

While there is a clear logic to this argument, empirical work in the area is highly contested. A series of empirical studies find only a weak relationship between crises and capital account liberalization. For example, Drazen and Easterly (2001) find a positive relationship between inflation and economic reform, but this does not hold for other measures of economic distress. In a recent study, Pepinsky (2012) finds that governments are more likely to close their capital account during crisis. Although the empirical debate remains unsettled, this literature provides clear guidance on the opposing empirical predictions of different theoretical arguments on the relationship between crisis and economic liberalization.

Much of the academic literature on investment expropriation has been divorced from these debates, despite the obvious parallels. While the fundamental features of FDI are quite different from other forms of capital in a number of important ways, government decisions to expropriate investments are also tempered by reputational costs. During periods of crisis, what choice does a government make?

One explanation is that governments are pressured to expropriate firms during a crisis. These links between economic crisis and increased investment disputes have been noted by non-academics. In a volume on political risk insurance, Hansen (2005, 12) notes: "Emerging markets, particularly Indonesia, Pakistan, Thailand, the Russian Federation and Argentina during their respective economic crises have been a rich source of troubled investments." A recent survey by MIGA finds that investors believe that crisis increases risk. When asked about the impact of a financial crisis on expropriation risk, 29% and 37% indicated that crisis leads to a major or minor increase in risk respectively. Only 10% of respondents thought that financial crisis leads to decreased (7% minor, 3% major) risk. Similar results hold for the impact of recession on expropriation risk. 15% of respondents indicated recession has a major increase in political risks and 44% indicated it leads to a minor increase in risk.

In this paper, we argue that although there is a temptation for governments to use expropriations as a form of redistribution during crisis, the potential reaction of international financial markets constrains this behavior. The same MIGA survey found that one of the biggest blows to government reputation is the expropriation of an investment. While this finding may seem obvious, the important point is that even a selective expropriation (for example, a single power provider or oil producer) sends a powerful signal to markets that has serious repercussions for

the government's ability to attract capital. Equally powerful is the ability of important actors, such as home countries or multilateral institutions, to deter expropriations.

In the following sections we construct a simple, single period formal model of expropriations that takes into account both the reputational effects of expropriation and the mechanisms that outside actors can use to ensure investments are protected.

A Model of Political Risk and Economic Crisis

In this section, we provide a decision-theoretic model that examines host government behavior towards FDI. We are specifically interested in finding the conditions under which it is optimal for a host government to expropriate assets from their foreign investors.

Economic Crisis and Foreign Investment

Economic crisis affects a country in a variety of ways, depending on the type of crisis (e.g. banking, currency, or debt). Often, credit markets get tighter, unemployment rises, the capital-to-labor ratio and total factor productivity decrease, there is inflation, domestic foreclosures increase, and growth slows. Each can interfere with domestic generation of revenue.

As noted previously, these consequences can impact the government-investor relationship in a variety of ways. In this paper, we begin by assuming that every unit of revenue is more valuable to the government during a crisis.[6] We also assume that expropriation entails more uncertainty than continuing to facilitate the investment (governments have more information about existing FDI revenue, compared to the value of the assets upon expropriation, particularly after paying the transaction costs to seize them).

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[6]Insufficient access to revenue is one of the hallmarks of crisis. Kindleberger (1996, 15) describes the point in a crisis where a government is faced with the possibility that it will not be able to meet its liabilities: bankruptcies increase, liquidation occurs, and "the realization spreads that there is only so much money." He lists this concern as the key argument for a lender of last resort, which may convince "the market that money will be made available in sufficient volume to meet the demand for cash." Reinhart and Rogoff (2009) also describe the key role of public debt during economic crisis: "government debt is...often the unifying problem across the wide range of financial crises we examine" (from their preface). In their conception of economic crises (Table 1.2), the problem of insufficient access to revenue (whether to provide public credit or avoid default) is persistent across crises.

Finally, we account for the real possibility that a government's reputation has broader financial consequences than simply affecting FDI. A government expropriation has the ability to signal a government's unwillingness to uphold contracts and thus has a negative effect on a government's reputation in currency and bond markets. Specifically, a government expropriation of investments during a financial crisis can lead to a decreased demand for the local currency (leading to a run on reserves or a depreciation of the currency in a floating exchange rate system) and higher borrowing cost for the government via increased interest rates in sovereign bond markets. De Paoli, Hoggarth and Saporta (2006) suggest that there are similar losses in a crisis, following sovereign default.[7] In the model, we parameterize these costs, which we call *financial market costs* for convenience.

Why are these costs more extreme during a crisis? These additional financial market costs can come from two sources. Governments which choose to not pay creditors or expropriate investors during a crisis may be signaling government type, or signaling government's expectations of future economic performance based on private information. For example, in a classic study, Sandleris (2008) argues that government repayment decisions during an economic crisis reveal the government's private information about the state of the economy. For Cole, Dow and English (1995) government decisions during a crisis reveal a government's propensity to uphold contracts in the future. One excellent empirical example from sovereign debt payments is Kaminsky and Schmukler (2002). They find that sovereign debt defaults have spillover effects on other financial markets, and that these effects are even more pronounced during an economic crisis.

Note that we simply assume that there is some positive probability that these costs are realized, which we believe is a realistic assumption. While we later show that this assumption is not critical to avoid escalating expropriation during a crisis.[8]

To summarize, in a crisis, revenue is scarcer than in normal times, so the average unit of

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[7]According to De Paoli, Hoggarth and Saporta (2006), there are two costs of default: reduced access to future finance and output loss (because domestic firms are also unable to borrow). They argue that banking crises and currency crises exacerbate the output loss during default because domestic banks cannot function as intermediaries and provide credit as before and currency crises increase governments' fixed debt. They call this output loss broader financial costs.

[8]In other words, we show that even if there are no new financial market costs during a crisis, the government will still not be more likely to expropriate in a crisis.

currency is worth relatively more to the government. For foreign investments, which simultaneously offer sustainable revenues to the government as well as assets that can be seized for gain (amid higher uncertainty), the increased demand for revenue creates new incentives for expropriation but also for good behavior. In addition to increased transaction costs of seizure, during a crisis the government also faces financial market costs.

The Model

In this single-period model we assume that foreign investors enter prior to the unfolding of an economic crisis. Rather than model the full process of choosing an investment location, we simplify our model by examining how an economic crisis affects the treatment of existing investors in a single round of play. This behavior towards existing investors then has effects on future FDI flows.

Our model starts where nature (N) determines whether or not an economic crisis occurs in the host country. This assumption of exogenous crisis may seem strong, but existing work on economic crisis supports the view that while many speculative bubbles emerge through a combination of private decisions and government policies, the timing of when these bubbles burst is difficult to predict (Kerner 2009). This assumption of exogeneity actually biases our empirical analysis against our main hypothesis. Thus, we make the conservative assumption that the economic crisis is exogenous and focus on leader decisions in the wake of a crisis.

In response to a crisis, a leader in the host government (L) decides whether or not to expropriate foreign investment.[9] To capture the rich variance in potential government involvement in the investment, denote G ($G \geq 0$) as the amount L contributes to the average foreign investment project and α ($\alpha \geq 0$) as the return on that contribution.

Let ω, where $\omega \geq 0$, be the value of the investment upon expropriation, net of the transaction costs of realizing that benefit. However, a host government may be exposed to other costs. One of the most direct costs is retaliation from foreign actors. Denote R (where $R \geq 0$) as the expected

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[9]We focus on the decision of the individual leader. In a survey of investors, MIGA (2012) finds that vast majority of investors believe that expropriations originate from the executive branch. Here, expropriation stands for an intentional rent seizure, by the government, from foreign investors. While future work can analytically distinguish between types of contract breach, for this paper, we simply model a general contract breach.

cost of retaliation.[10] This may be direct sanctions from the home government of the investor, forcing the host government to pay compensation through investment arbitrations, withholding foreign aid, IMF intervention, or the application of diplomatic pressure.[11] A less direct cost is that expropriation can disrupt post-crisis revenue streams from FDI. If the host government can avoid expropriation (by playing $\neg E$), they can receive the benefit of continued investment during the recovery phase, albeit at a rate discounted by their regard for post-crisis investment. Denote $\delta \in (0,1)$ as the degree to which L discounts this future investment. Thus, in a non-crisis state, governments that do not expropriate receive a payoff of: $G\alpha + \delta G\alpha = G\alpha(1+\delta)$. Governments that expropriate receive a payoff of: $\omega - R$.

In a crisis, governments face the same decision to expropriate, but often with significantly less revenue coming from domestic sources. Relative to this revenue, FDI may represent an even more valuable revenue stream, particularly when they deliver a stable flow of revenue or provide a social function, such as employment (generating tax revenue from domestic citizens). For this reason, we assume that during a crisis, a unit of revenue is worth relatively more to the government by a factor of π, where $\pi > 1$: $G\alpha \rightarrow \pi G\alpha$ and $(\omega - R) \rightarrow \pi(\omega - R)$. We believe that this is not a controversial assumption, but one that relates to existing scholarship on the role of crisis in triggering expropriations. Secondly, as discussed above, FDI can provide a steady stream of revenue for the government but expropriation often entails more uncertainty. During a crisis, this wider variability may be key.

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[10]The United States, for example, has written into law that provisions such as foreign aid will be withheld from any foreign government that expropriates from an American firm and does not pay compensation within six months (e.g. the Hickenlooper Amendment to the Foreign Assistance Act of 1962 (tied the U.S. foreign assistance programs to the protection of U.S. overseas assets), the Gonzalez Amendment of 1971 (strengthened the Hickenlooper legislation by giving the U.S. government the authority to stop multilateral bank loans to nations that expropriate U.S.-owned properties), and the Helms amendment of 1994 (a multilateral version of the Hickenlooper Amendment which forces the U.S. President to act, for example withholding aid, if the corporation does not begin receiving adequate compensation within six months)). As Northrup and Turney (2003) explain about the Hickenlooper Amendment of 1962, "Over the last four decades, the Hickenlooper Amendment has effectively protected U.S. overseas investments. Although rarely invoked, the very existence of the legislation provides a powerful policy tool for deterrent to nations considering expropriation of U.S. assets." (pgs. 186-187). Maurer (2013) also concludes that while Hickenlooper is rarely used, the U.S. effectively used foreign aid to protect U.S. investments.

[11]We assume each parameter is measured in the same unit (whether in dollars or otherwise).

Denote X as the leader's payoff when exposed to financial market costs. This may be substantially less than their payoff for expropriation, without these costs. Here though, we merely assume that $X \leq \omega - R$. More formally, we assume that with probability $1 - q$, an expropriation will trigger additional financial market costs. Thus, while in normal times L chooses between $G\alpha(1 + \delta)$ (for playing $\neg E$) and $\omega - R$ (for playing E), in a crisis, the leader chooses between $\pi G\alpha(1 + \delta)$ and $q\pi(\omega - R) + (1 - q)X$. Figure 1 illustrates the decision-theoretic logic.

[Figure 1 in here]

Figure 2 graphically displays our assumptions. In the left panel, the dashed 45° line graphs the payoffs if no difference exists between crisis and non-crisis times. The more vertical this line, the more a government values a unit of revenue during a crisis (by a factor of π). We can also see the payoff discontinuity during a crisis: what may simply be big losses in normal times, may also entail additional financial market costs during a crisis.

[Figure 2 in here]

Finally, we assume that the range of payoffs is larger with expropriation. Governments may be able to capture a larger percentage of the revenue, but they also may face a number of challenges to realizing that higher percentage. While in normal times, this wider variation just means a more extreme minimum and maximum payoff, in crisis, an expropriation may precipitate a dramatic drop. The right panel of Figure 2 displays this variation.

With this logic, we determine the conditions under which a government will be incentivized to expropriate. Suppose N selects a non-crisis state of the world. Looking at Figure 1, L will choose E when $\omega - R \geq G\alpha(1 + \delta)$. Solving for α, this reduces to:

$$\alpha \leq \frac{w - R}{G(1 + \delta)}. \tag{1}$$

Thus, L will only expropriate in non-crisis time when the value of FDI revenue is sufficiently low to satisfy Equation (1). Flipping the inequality provides the condition for which this rate of return will be sufficiently high to prevent expropriation.

Now suppose that N selects crisis. Following the same process, L will choose E when $q\pi(\omega - R) + (1 - q)X \geq \pi G\alpha(1 + \delta)$. Solving for α, this reduces to:

$$\alpha \leq \frac{q\pi(w-R) + (1-q)X}{\pi G(1+\delta)}.\qquad(2)$$

Like condition (1), condition (2) shows that L will only expropriate during a crisis when the value of FDI revenue is sufficiently low. Here again, the rate of return can be critical to preventing (or incentivizing) expropriation. Looking more closely, we see that, in both crisis and non-crisis times, the more L cares about future investment (the greater δ is), the less they will want to expropriate.[12] In this simple sense, reputation with investors can further constrain a government from breaching contracts.

Next, we examine how economic crisis affects the expropriation response from the host government. We then briefly discuss how foreign pressure and intervention can affect expropriation behavior.

The Effect of Crisis and Foreign Dependence on Expropriation

In the previous subsection we focused on a leader's decision to expropriate from investors using a relatively straightforward cost-benefit calculation. During an economic crisis, do the benefits of expropriating outweigh the costs, or does the future loss of investment weigh even more heavily on a government's decisions to expropriate during a crisis? Our model provides a clear prediction on this question. Comparing Equations (1) and (2), we see that crisis will make expropriation less likely when:

$$\frac{w-R}{G(1+\delta)} > \frac{q\pi(w-R) + (1-q)X}{\pi G(1+\delta)}$$

$$\Rightarrow X < \pi(\omega - R),\qquad(3)$$

which is satisfied by our previous, reasonable assumptions: $\pi > 1$ and $X \leq (\omega - t - R)$ imply $X < \pi(\omega - R)$. Condition (3) states that crisis will discourage expropriation when L would rather accept FDI revenue than incur financial market costs. Notice that the prediction does not

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[12]Notice that joint ownership with the host government can also provide a risk shield for investors: as $G\alpha$ increases, conditions (1) and (2) become more difficult to satisfy, suggesting that L will have even less incentive to expropriate.

depend on the magnitudes of the exogenous parameters and that it is satisfied even if there are *no additional* financial market costs associated with crisis.[13] This is a strong result, given our simple assumptions. We conclude that crisis disincentivizes expropriation.

The role of π is not obvious from the outset. While π captures how much *more L* values FDI revenue during a crisis, it also captures how much more L values the expropriated assets. This is clear in reality: Foreign revenue (coming from countries that may not be affected by the crisis) can bolster an economy in the doldrums, but nationalization may give the country needed ownership in a downturn. This is part of the puzzle of how crisis affects contract breach: based solely on the idea that revenue is scarcer during a crisis, one could argue that governments may be more constrained or more likely to expropriate. Many in the political risk industry assume the latter. Yet, here, the result is unambiguous: the more L values revenue during a crisis, the less they will want to expropriate. This is a strong result, considering how simple the assumption of resource scarcity (π) is, but also how little our assumption about the likelihood of incurring additional financial market costs ($1-q$) matters: condition (3) is independent of q. Thus, only an infinitesimal likelihood of additional costs is necessary to compel constraint during a crisis. Put together, condition (3) states that, as long as there is *any* chance that L will incur additional market costs (even if infinitesimal) in response to an expropriation, we should expect them to expropriate less during a crisis. The more additional costs, the more we should expect constraint from governments. Our first empirically testable hypothesis is the following:

> **Hypothesis 1:** *During an economic crisis, host governments will be less likely to expropriate from foreign investors.*

Our first hypothesis focuses on the relationship between crisis and expropriation. Equally important is the role of retaliatory pressure on countries that expropriate. In the derivation of Equation (1), $\alpha \leq \frac{w-R}{G(1+\delta)}$, and Equation (2), $\alpha \leq \frac{q\pi(w-R)+(1-q)X}{\pi G(1+\delta)}$, we see that increasing R (the retaliatory

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[13]In other words, our result is largely robust to specific levels of the financial market costs or retaliation. Even with no extra financial costs, crisis would not increase the incentive to expropriate (so long as $\pi > 1$!). Notice that, while Equations (1) and (2) suggest that L will choose expropriation as $X \to 0$ and $q \to 0$, Equation (3) maintains that L will still receive less benefit by expropriating in a crisis than they would if no crisis. Also notice that the result persists even if we assume that R decreases in a crisis.

potential) makes it more difficult for the α-criteria to be satisfied. Thus, the more consequences from foreign political actors, the less incentive to expropriate.

Home governments may use several tools to deter expropriating acts, including withholding bilateral aid or blocking financial support from international organizations. A large literature in political science has shown that aid allocations are linked to political and strategic considerations (e.g., Alesina and Dollar, 2000). Donor countries may use foreign aid to reward foreign policy loyalties or to encourage policy changes. For instance, Kuziemko and Werker (2006) show that non-permanent members of the UN Security Council receive extra foreign aid from the United States and the UN, especially during years when key political decisions are made. Foreign aid falls back to its earlier levels once the council membership ends.

Similarly, the literature on the IMF shows that powerful countries sometimes use the Fund as a political tool to support allies or punish enemies. Studies show that close allies of the powerful members of the IMF are more likely to receive IMF loans; generally these loans are larger and they require fewer conditionalities (Thacker, 1999; Copelovitch, 2009; Stone, 2011; Dreher and Jensen, 2007). These countries are also punished lightly for not complying with the IMF programs (Stone, 2002, 2004). Powerful members of the Fund also utilize IMF lending to protect their financial interests. The studies show that countries that owe a large amount of money to private creditors from the Fund's powerful shareholders are more likely to receive preferential treatment (Oatley and Yackee, 2004; Broz and Hawes, 2006).

Although the political and strategic motivations of foreign aid and IMF loan allocations are well established in the literature, there are few studies that examine the link between external economic support and expropriation acts. In a formal model of foreign investment, Asiedu, Jin and Nandwa (2009) show that the threat of losing access to foreign aid reduces the likelihood of expropriation although it does not totally eliminate the risk. In a recent study, Wellhausen (2014) argues that home governments defend their investors against expropriations by using bilateral relationship such as linking firms' property rights to aid and voting at international organizations. For example, in 2012 the Indian government denied $25 million in aid to Maldives after the expropriation of an Indian-owned company. In another example, in the dispute between Argentine government and Aguas Argentinas the French Minister of Economy, Francis Mer, reminded the Argentine government the importance of their support at the IMF to reach an

agreement with the Fund (Olleta, 2007; Wellhausen, 2014). On the other hand, Wellhausen (2014) notes that the governments do not always follow through these threats because high FDI national diversity in the host country reduces the home government's diplomatic leverage.

While we do not formally model the choice of foreign actors to intervene, our focus on policy decisions during crisis leads us to explore how involvement with the IMF shapes expropriation decisions. The obvious implication from our model is that support from the IMF has a major impact on a country's propensity to expropriate. This leads to our second empirically testable hypothesis:

> **Hypothesis 2:** *The more dependent the host government is on assets provided by foreign political actors, the less likely they will be to jeopardize those assets by expropriating.*

Our simple logic tells a story about how regard for future investment interacts with economic duress, given the domestic resource constraints and the inflated costs of destabilization during a crisis, but also how the prospect of a costly response from foreign nations and international organizations can decrease the likelihood of expropriation, strengthening property rights abroad.

Analysis of Expropriation Events

The previous section builds a decision theoretical model of a leader's choice to expropriate. We note that there are countervailing forces during a crisis. On one hand, there may be greater incentives to expropriate; on the other hand, the direct and indirect costs of expropriating increase. We argue that these increases in costs dominate the government's decision, but ultimately, this is an empirical question.

To test our two hypotheses, first, we utilize existing expropriation events data that have been used by numerous scholars. Our dependent variable is the number of expropriations in a country in a given year. The data are from Li (2009) and Hajzler (2011) which include expropriations in 79 developing countries from 1971 to 2006. This expropriation dataset has limitations, specifically in that it only looks at expropriation events and not the non-expropriated investments. In the next section we present what we believe is a more appropriate dataset for testing our hypotheses

followed by a series of cases studies. We use the expropriation data in this section to examine if our theory is consistent with patterns of expropriation events documented in previous studies.

While our theory is general enough to encompass different types of economic crisis and multiple forms of intervention (foreign aid, economic sanctions, IMF and World Bank loans, etc), we specifically focus on financial crises and a form of intervention that is usually associated with financial crisis, support from the IMF. To examine the effect of financial crises on the timing of expropriations, we use the dataset from Laeven and Valencia (2008), which details three types of financial crises—banking crises, currency crises, and debt crises. While the measurement of crisis requires judgment, we utilize an existing measure of crisis that has been used in numerous studies. The key independent variable *financial crisis* is equal to 1 if at least one crisis started in the previous year and 0 otherwise. While we focus specifically on financial crisis, our results are not especially sensitive to different codings of crisis or alternative lag structures.[14]

In Table 1, we present the frequencies of expropriation events across time periods and regions, and by whether they occurred in crisis or non-crisis years. It shows that most of the expropriation events happened in the 1970s, as pointed out by Kobrin (1980). The number of expropriation events declined after 1980, but there seems to be a resurgence after the 1990s, especially in Latin America and Asia. African countries, often in their first post-colonial governments, have expropriated many investments. The top five expropriative countries are Chile, Ethiopia, Peru, Algeria, and Madagascar, and they expropriated mostly before 1980.[15] Moreover, while in our data 7.8% of the country-years experienced financial crises, only 21 out of 426 expropriation events occurred in crisis years. This disproportionality provides preliminary evidence that governments are less likely to expropriate during crises.

[Table 1 in here]

To test our second hypothesis, we examine how IMF support affects expropriation propensity. The independent variable we use is *IMF agreement*. This data are from Dreher (2006), who

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[14]We also operationalize crisis as the number of financial crises, from 0 to 3. As an alternative to a one-year lag, we also tested all models using two-year and three-year lags. The results remain robust when different measures of crises are used.

[15]For instance, in Ethiopia 1975 alone, there were 25 expropriation cases. To reduce the potential bias driven by these extreme cases, we also use a dichotomous measure indicating whether there was at least one expropriation event, and perform a logit model. The results remain unchanged, which can be seen in the online appendix.

provides information about four IMF arrangements.[16] We code this variable as 1 when a country is under at least one of these arrangements for at least five months in a particular year and 0 otherwise.

We also include a battery of control variables. *FDI* is the total amount of inward FDI as a percentage of GDP. This variable measures a country's dependence on foreign capital. The logarithm of *GDP per capita* and its squared term are used to examine if the relationship between development and expropriations is curvilinear (Jodice 1980). *Economic growth* is the annual GDP growth rate. *Trade openness* is the total amount of import plus export as a percentage of GDP. *Government spending* is the annual amount of government consumption as a percentage of GDP. *Resource rent* is natural resource rents as a percentage of GDP. Resource rich countries may be more likely to expropriate because they are less sensitive to reputational costs (Jensen and Johnston 2011).[17] All the data for these variables are from the World Development Indicators database.

The level of *democracy*, measured by the standard 0-20 Polity index, is used to test whether democratic countries are less likely to expropriate. Examining nationalizations in the oil sector, Guriev, Kolotilin and Sonin (2011) find that expropriations are more likely when oil prices are high. Therefore we include *oil prices* to control for this effect, the data are from BP's Historical Data Workbook. We also include dummy variables for different decades, since Table 1 clearly shows that expropriations are temporally clustered.[18]

The dependent variable is a discrete and nonnegative count of the occurrence of expropriations; the data are time-series cross-sectional. We thus employ a Poisson model and include country fixed-effects to control for country heterogeneity.[19] The fixed-effect model is also a within-estimator, which enables us to examine how changes in the independent variables within

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[16]These four arrangements are IMF Standby Arrangement, IMF Extended Fund Facility Arrangement, IMF Structural Adjustment Facility Arrangement, and IMF Poverty Reduction and Growth Facility Arrangement.

[17]While there are various measures of natural resources (Ross, 2006), our results do not change when we replace the resource rent variable with other measures of resource wealth, such as oil values and a dummy variable for oil producers.

[18]When we replace decade dummies with an indicator for the Post Cold War period or year dummies, the results do not substantially change.

[19]Our results remain robust when we perform the country random-effects Poisson model.

countries affect the decision to expropriate. All the independent variables, except for *IMF agreement*, are lagged one year behind the dependent variable to avoid simultaneity or reverse relations. The summary statistics are presented in the online appendix.

[Table 2 in here]

Table 2 presents the results. Model 1 is the baseline model, in which we include only control variables. In Model 2, we allow *financial crisis* to enter the model. As can be seen, the effect of crises on expropriations is negative and statistically significant, suggesting that governments are less likely to expropriate foreign assets following a financial crisis, supporting our first hypothesis. Other things being equal, a financial crisis in the previous year leads to a 54% reduction of expropriation acts.

In Model 3 we examine the mechanisms through which crises reduce expropriations. *IMF agreement* enters the model, and the result shows that it has a negative and statistically significant effect on expropriations. This means that governments are less likely to expropriate when they are under IMF arrangements. Other things being equal, when a country is under at least one IMF agreement, the number of expropriations is reduced by 45%. The coefficient of *financial crisis* remains statistically significant, but the magnitude is reduced, possibly driven by the collinearity between *IMF agreement* and *financial crisis*. While financial crises are relatively uncommon events (around 7.8% of the total observations), 51% of the crises occurred while under an IMF program.

We also test the interactive effect between financial crisis and IMF support in Model 4. While financial crisis and IMF support independently affect the propensity to expropriate, we do not find any significant impact of their interaction. Interpreting these null results requires some caution, at least for the IMF and crisis interactions, since most countries that have undergone financial crisis have been under IMF programs. Thus we may have limited variation in our data, and the process of undertaking an IMF loan is generated by non-random selection.

In addition to the main findings, Models 1 to 4 in Table 2 indicate some results that are worth mentioning. First, economic development and expropriations have an inverted-U relationship. Countries of medium wealth are more likely to expropriate than poor countries, but this likelihood decreases when countries are more developed. One plausible explanation for this is that the poorest countries of the world attract very little FDI and thus have very little opportunity to expropriate from investors. Second, resource rents have a positive effect on expropriations,

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indicating the propensity for resource rich countries to breach contract. Third, democratic governments are less likely to expropriate, consistent with the findings in previous research. Fourth, contrary to our expectation, oil prices are negatively related to expropriations. Finally, compared to the 1970s, the number of expropriations is largely decreased after 1980.

Survival Analysis of U.S. Investments

The previous section examines the likelihood of expropriation events in a given country-year. We find support for our theory that governments are less likely to observe expropriations during periods of financial crisis and strong results linking countries dependent on IMF support as less likely to expropriate in a given year. Unfortunately, this research design is not without flaws. Specifically, we do not know which investors were not expropriated, and thus our statistical models only tell half of the story. Some countries, such as Argentina, have attracted a large number of investors. During periods of crisis, some of these investors have been expropriated. But for a given investor, do periods of economic crisis lead to a higher probability of expropriation?

As a more direct test of our hypotheses and to investigate the robustness of the results in Table 2, we replicate the analysis with a new dataset and an alternative statistical estimator. Existing scholarship has counted the number of expropriations in a country, and our analysis in Table 2 follows this literature. In this section we examine individual investment projects in high risk emerging markets. The data on these investments are from the OPIC, the U.S. political risk insurance agency, and contain information on every investment insured through the agency from 1973 to 2000. During this period, out of the total 2,602 investments, there were 23 expropriation acts. Thus, even in these high risk countries expropriations are rare events.[20]

There are two concerns in analyzing expropriation acts. First, previous studies show that over time host countries increase their negotiation power against foreign investors and the likelihood

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[20]We note that this limited numbers of expropriations is not an indicator that expropriation is not an important risk for firms. As we argued in the previous sections, expropriations are major concerns to investors that shape firm decisions. In our final section we address the large number of investment disputes that fall short of an expropriation, largely because of treats to a country's reputation or potential retaliation by international organizations.

of expropriation increases.[21] Thus, it is pertinent to include duration of investments in analyzing expropriation acts. Second, we do not observe some possible expropriation acts even though the most recent foreign investments continue to face expropriation risk. Thus, our data are generally censored. One can choose to ignore the missing information, but this may cause bias and loss of information in parameter estimates (Allison 2010; Yamaguchi 1999). Survival models can deal with censored observations adequately and involve the modeling of time to event data (Yamaguchi 1999). With contract level information, the OPIC data provides us with a unique opportunity to address these concerns with survival models.

We organize the data as time-series cross-sectional, and the unit of analysis is investment-year. To model expropriation risk, we define both the outcome and duration of investments. The dependent variable is the investment status, equal to 1 if the investment was expropriated by the host country, equal to 2 if the investment period ended without expropriation, and 0 if the data are censored. While we do not have information about the exact ending time of the investment period, we know the starting year and that most investment insurance contracts are for no more than 15 years in duration. Thus we assume that investments are not expropriated (survived) if there is no expropriation event within 15 years. Our measure of duration is the number of years the investment survives before exiting from the host country with either expropriation or termination of the investment period.

Thus we have two modes of termination: investments can end with expropriations or by the termination of the investment period. The occurrence of one of these events prevents the occurrence of the other. We therefore employ a competing risk model to consider these multiple outcomes. The competing risk model we use implements a semiparametric proportional hazard model for subdistribution (also known as cumulative incidence function) as proposed by Fine and Gray (1999). The cumulative incidence estimate of the model is a function of the hazard of both failures, and thus it estimates the probability of expropriation when competing risks are present (Gooley et al. 1999). Moreover, as in the Cox model, this model does not require the researcher to specify or parameterize time-dependency. Therefore, we do not have to make assumptions about the nature and shape of the baseline model.

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[21]See Grieco 1982 for an overview.

[Table 3 in here]

Table 3 reports the results from the competing risk survival analysis. In Model 1 and 2, we replicate the analyses in Table 2. The models differ in that we include an indicator of *Cold War Period* rather than the decade dummies to control for temporarily clustered expropriations.[22] In Model 2, the result on *financial crises* is in the expected direction, but it fails to achieve statistical significance. In the following models, we use a different operationalization of *financial crises*, coding it as 1 for at least two types of crises (among currency, banking and debt crises) and zero otherwise. The reason for this choice is to see whether governments behave differently when the crisis become more severe.[23] The results on *financial crises* strongly support the findings in Table 2. Similarly, the coefficient of *IMF agreement* is negative and statistically significant. As can be seen in Figure 3, within five years of investment the probability of expropriations is approximately 0.17% during non-crises years. IMF involvement reduces this likelihood approximately by a factor of four. On the other hand, the probability of expropriation remains miniscule during crises years.

[Figure 3 in here]

With regard to control variables, as in Jodice (1980) the results show a curvilinear relationship between GDP per capita and expropriations. Countries with low and high level of economic development are less likely to expropriate than countries with medium wealth. Economic growth is also negatively and statistically significantly associated with expropriations, thus lends support for "desperation" expropriations hypothesis. The coefficient of *FDI* is negative, but fails to achieve statistical significance in Model 4 and 5. Finally, the results on *Resource rent*, *Democracy* and *Oil prices* confirm the findings in Table 2.

MIGA Pre-Claims Cases

Our empirical results provide evidence that reputational concerns as well as the dependence on IMF support largely shape expropriation behavior. While expropriation decisions are made

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[22]When we include the decade dummies, the models fail to converge.

[23]When we use the number of crises instead and test them as separate categories, we find statistically significant results for multiple crisis.

by host governments for a number of reasons, we argue that the choice to expropriate is costly for countries, and that these costs include reputational impacts and the potential withholding of badly needed financial support from abroad. A model looking at expropriation events can examine if patterns of expropriations are consistent with our theory, but we cannot examine government decisions to expropriate or not.

In this section we provide a number of cases drawing on primary source materials from the World Bank's political risk insurance arm, the MIGA, to explore government decisions to expropriate or back down from a potential expropriation. MIGA has information on successful negotiations of disputes that helps shed light on both why governments want to expropriate from investors and what factors lead governments to reverse or moderate their demands. MIGA has collected details on 34 "pre-claims" of expropriation or breach of contract on MIGA insurance contracts from 1998 to 2010. We also briefly discuss the 6 realized claims that MIGA has paid out during the time period of our study. Although the methodology of how MIGA documents these pre-claims has changed over time, all of the documentation from this time period includes details on the sector of the investment, the nature of the potential claim, and the ultimate resolution.

We use these primary source documents along with interviews with MIGA staff to examine the relationship between financial crisis and expropriation behavior.[24] In Table 4 we provide a brief description of the cases.

[Table 4 in here]

Table 4 provides some examples of government incentives to renege on contracts during periods of crisis, although there are two important points. First, these are cases of pre-claims, where the government either ultimately backed down from the initial policy to a resolution with the investors or in a few cases the negotiation is still under way. Second, the crisis-triggered expropriations are quite uncommon. Only seven of the 34 cases are related to economic crisis, and three of these are related to the financial crisis in Argentina.

Other types of disputes are much more common. In some cases political change leads to an investment dispute, for example, a new minister of mines in Guatemala denying tariff adjustments

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[24]Interviews were facilitated by Daniel Villar, Former Lead Risk Management Specialist at MIGA and currently Principal Economist and Credit Risk Head at the World Bank. All interviews were conducted via phone in April and May 2013.

or a regime change in Guinea leading to the canceling of a telecommunications contract. Also common are reviews of privatization programs or the revising of contracts written by previous regimes. Examples include privatized natural resource investment in the Democratic Republic of the Congo (DR Congo) and Moldova.[25] Political change in Ecuador led to a review of all water concession contracts.[26] The most common pattern of these pre-claims is governments attempting to renegotiate terms of contracts, often on the tariffs that power and water providers can charge consumers or payments owed to firms from the government.

Interviews with MIGA staff point to unbalanced contracts as one potential trigger for expropriation threats. In a number of power contracts investors pushed much of the risk onto the host government which eventually led to major financial losses by the government. The contract on hydroelectric generation by AES in Uganda is a clear example of this pattern. AES negotiated favorable terms for a power generation contract, which became obvious during a period of low rainfall. The government attempted to renegotiate the contract, claiming that they were incurring major financial losses by making minimum payments to AES.[27] Similar examples include the 2003 geothermal dispute in Nicaragua, 2003 and 2004 power disputes in Kenya and Guatemala, and 2007 dispute over the investment in a cotton gin in Afghanistan.[28]

This wide variety of types of pre-claims provides evidence of exogenous shocks (crisis, environmental disasters), political change, and pricing disputes between firms and governments. There are also a number of cases that could be classified as "corruption," often where government officials either attempted to extract from a firm,[29] or where the government was attempting

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[25]We discuss these two cases later in this section.

[26]The election of Correa in Ecuador led to general calls for public ownership of water utilities. Although there was criticism of this operation by some local stakeholders, MIGA staff indicated that this dispute was less about the performance of the contract and more of an ideological commitment to public ownership in this sector.

[27]AES eventually agreed to renegotiate the power generation contract, but the highly favorable terms of the distribution contract is a potential future expropriation risk.

[28]The major issue with the cotton gin was that the company negotiated a contract that guaranteed minimum payments. Unfortunately, few farmers grew cotton (presumably growing opium instead) and the gin was largely unused. The government resisted providing payments to a company that was not producing cotton. Details on the project can be found here: http://www.miga.org/projects/index.cfm?pid=661

[29]Interviews with MIGA suggest that disputes in China and Kazakhstan are examples of this.

to force out the firm in order to help a competitor.[30] Given this wide range of triggers for the disputes, is there a common pattern to how these were successfully renegotiated? To answer this question we draw on a number of interviews with MIGA officials.

One of the major tools that can be used is to articulate how these claims, made public through MIGA, would have negative consequences for the country's reputation. Some of the clearest cases were the disputes in China, where in a couple of pre-claims local or provincial government officials took actions against a firm and MIGA contacted the central government to intervene. The conclusion of the 1998 dispute in China was literally a public ceremony signifying a conclusion of the dispute that included the company and government officials.

While different in nature, the role of reputation in the 1998 dispute in Guatemala was important in resolving the issues at stake. In essence, the energy minister was pushing for changes in a power contract. MIGA consulted with the Ministry of Finance, articulating the potential financial consequences of expropriation behavior. The political fight between these ministries is complicated, but the Minister of Finance eventually prevailed.

In many cases, powerful external actors also intervened. The clearest example was the heavy involvement of the President of the World Bank and the Prime Minister of Spain in the 2003 power dispute in Moldova. According to MIGA sources, the government was harassing a Spanish power provider to entice the company to sell to a Russian company. The President of the World Bank and the Prime Minister of Spain directly sent letters, including a direct threat of cutting off World Bank, International Finance Corporation (IFC), and European Bank for Reconstruction and Development financial support.

The World Bank was also active in adjudicating the 2009 power dispute in Uganda. But, as noted above, this was a relatively unbalanced contract in favor of the investor. While the World Bank pushed for the Ugandan government to moderate their claims, the World Bank was sympathetic to the government's concerns about the contract. The contract was eventually rewritten with the firm taking more of the risk in the electricity generation part of the contract, although the government took on a number of major risks at the distribution end of the contract.

Similar pressure was put on Benin by the Bank for their discriminatory treatment of a foreign

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[30]Interviews with MIGA suggest Benin, Egypt, Kyrgyzstan, and Moldova fit this pattern.

cell phone provider. This foreign firm was threatened with a major up front fee for future taxes to continue their operations, despite domestic providers not being included in this new fee plan. The World Bank threatened to cut off future grants to Benin and the pressure on the foreign firm subsided. DR Congo is one of the more complicated cases of foreign involvement, where the IFC and MIGA had involvement in a mining operation. DR Congo was in the process of transforming their notoriously secretive mining contracts into a paradigm of transparency, signing onto the high profile Extractive Industries Transparency Initiative (EITI). But the problem was on how to deal with the previous contracts. Rather than providing a formal rule on how old mines would be treated, each mining operation engaged in one-on-one negotiations with the government. This was a process rife with potential corruption, but the World Bank (IFC and MIGA) supported mine opted for the highest EITI standard. This hard-line stance by the World Bank led to a major disagreement with the government. The Bank negotiated hard, although the number of important post-conflict World Bank programs in DR Congo actually made threats of cutting them off from funding less credible than in the case of Benin and Uganda.

In some cases, international financial institutions not only provided the sticks, they provided carrots to help negotiate a settlement. The ill-fated cotton gin dispute in Afghanistan was solved with money from multilaterals, while the Inter-American Development Bank provided funds to help cover power contracts that were costing the Guatemalan and Nicaraguan governments scarce foreign currency.

The role of multilaterals is not a guarantee of stable relations between investors and governments. Ecuador's expelling of the World Bank from the country and Argentina's tense relations with the IMF and the Bank provide evidence that multilateral involvement is not a panacea. But the evidence does suggest that these institutions wield carrots and sticks that can be used to avoid expropriation events, even in cases of contracts that were very unfavorable to host governments.

One potential concern is that by studying "pre-claims," we are ignoring the actual claims paid out. Fortunately for us (and MIGA), MIGA is exceptionally good at avoiding claims through negotiations. During this time period only six claims were paid out. These include two claims stemming from economic crises in Argentina and Indonesia. The other four cases were political violence claims during civil wars or domestic unrest (Afghanistan, Kenya, Madagascar and

Nepal). Thus the patterns of claims are not significantly different from the pre-claims data. Argentina, the poster child for expropriations during crisis, is actually a pretty unique event. The majority of claims and pre-claims are not associated with economic crisis.

Our case studies of 34 "pre-claims" from MIGA compliment our statistical analyses in the previous sections. We show that expropriation behavior is influenced by reputational concerns and that home governments and multilateral institutions put pressure on host governments to uphold contracts.

Our focus on MIGA claims, as an arm of the World Bank, is not necessarily representative of the total universe of disputes between governments. The experience of Luis Dodero-Jordan, General-Counsel for the Spanish political risk insurance agency and eventually a MIGA Vice-President and General Counsel who worked on most of these pre-claims prior to 2005 (when he retired), illustrates the additional leverage MIGA has over governments based on their relationship with the World Bank. According to author interview with Mr. Dodero-Jordan:

> I always mention, when I make a presentation, that my experience is as follows: When I was the General Counsel of CESCE (the Spanish equivalent of OPIC) many pre-claims became claims; in MIGA, most of the pre-claims were solved through negotiations. When in CESCE, if I wanted to meet with a minister to negotiate a pre-claim, the most probable outcome was: "the Minister will not be able to meet you"; –"but I represent the Spanish Government!"– "and so what." The ambassador of Spain had to be involved and he/she came to the meetings with me (usually at levels below the Minister). In MIGA in most cases the Minister will meet me the next day and, in some cases, members of the Government would be waiting for me at the airport and take me to the hotel in a limo.

The fact that MIGA may be less representative all of insurers, as pointed out in the comparison to CESCE, is an important illustration of our theory. The dependence of governments on foreign capital, private or multilateral, has a strong influence on behavior towards firms. While our statistical analyses focus on the role of the IMF, the case study of MIGA (a World Bank Agency) largely draws on carrots and sticks from the World Bank Group to push governments back to the negotiating table to avoid expropriation.

One issue we did not address in this paper is when governments and multilaterals use carrots or sticks to push governments into honoring contracts. While governments such as the United States are often quite active in pressuring host governments to limit expropriation or provide fair compensation for breach of contract, this pressure is not automatic. Wellhausen (2014) makes a

compelling case that distribution of the country of origin of FDI in a country shapes both the incentives of a government to expropriate and affects the home country's decision to pressure a host government to uphold contracts. Our MIGA cases also illustrate the willingness of multi-laterals to pressure host government can be shaped by a number of factors, including the case of the DR Congo where the status of existing World Bank projects tempered the Bank's response to contract breach.

We believe our case studies also suggest avenues for future research beyond home government responses to expropriation. While our theory focuses on the role of crisis and support of the IMF in affecting expropriation behavior, these case studies provide rich evidence for other factors shaping expropriation behavior. Many of these factors are specific to an industry or even a single negotiated deal between an investor and the government. We believe that this could explain our null results on the direct impact of crisis on expropriation behavior. Some firm-government bargains, such as power contracts, are untenable during a crisis. Thus while crisis may generally reduce the incentive to expropriate for most industries, there are clear counter-cases. This is one plausible reason for our mixed results on the relationship between crisis and expropriation. We believe that future work should focus more on the specific relationship between firms and governments, rather than political institutions or general economic conditions, to explain the behavior of host governments towards firms.

Conclusion

The choice of governments to break the rule of law is an under-explored topic in international political economy research. While numerous projects have examined how political institutions limit the ability of governments to expropriate from foreign investors, these time invariant factors cannot explain waves of expropriations over time. In this paper we directly address the timing of investment expropriations, arguing that external factors largely shape government decisions to expropriate from investors.

Contrary to the conventional wisdom on the link between economic crisis and the breaking of contracts, we argue that governments are less likely to expropriate from investors during times of crisis. One explanation for this is indirect. Cash strapped governments are less likely to

renege on contracts during a crisis in ways that harm present and future investment flows. Thus international financial markets discipline governments from expropriating foreign investment.

Second, we argue that home governments have the ability to punish host governments that expropriate from investors through the suspension of aid or the blocking of IMF allocations. While crisis may increase the benefits of expropriating from investors, the ability of home governments to impose costs on the expropriating government is even greater during a crisis.

We test our hypotheses through two datasets on the expropriations of investment and a case study of 34 "pre-claims." Our empirical results provide support for the link between crisis and decreased propensity to expropriate, and strong support for the link between IMF support and reduced expropriation acts. Our case study highlights the importance of both reputation and potential retaliation by home governments or multilateral lenders.

Our findings have broader implications for the literature on the relationship between markets and government sovereignty. Consistent with existing literature on economic liberalization and crisis, we find that economic crisis disciplines governments from the breaking of contracts. Yet market mechanisms are not enough to stop investment expropriations. We show that dependence on the IMF has a disciplining effect on government behavior.

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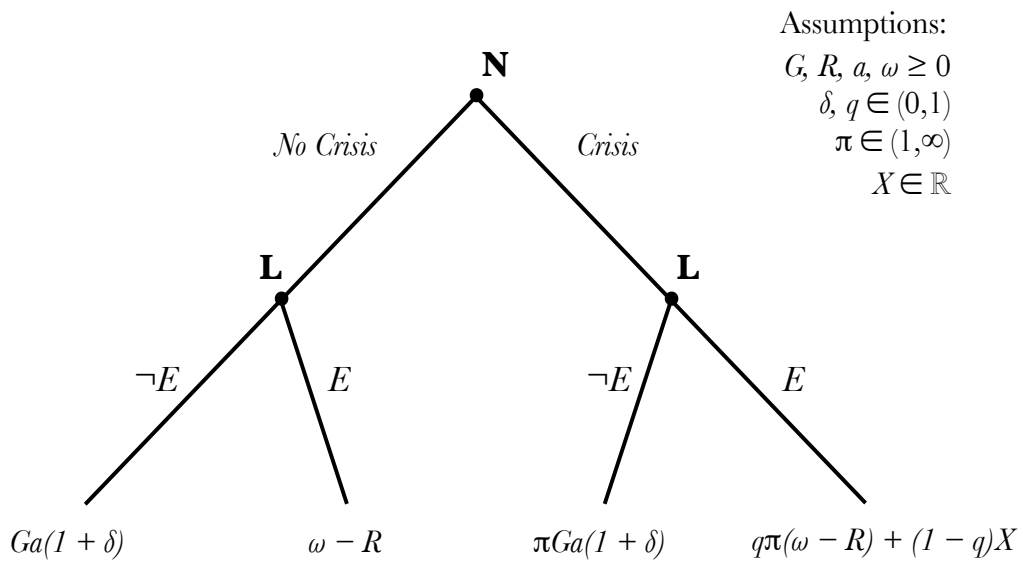
Figure 1: An illustration of the logic. Following the determination of the economic climate by nature (N), a host government (L) chooses whether or not to expropriate foreign investment.
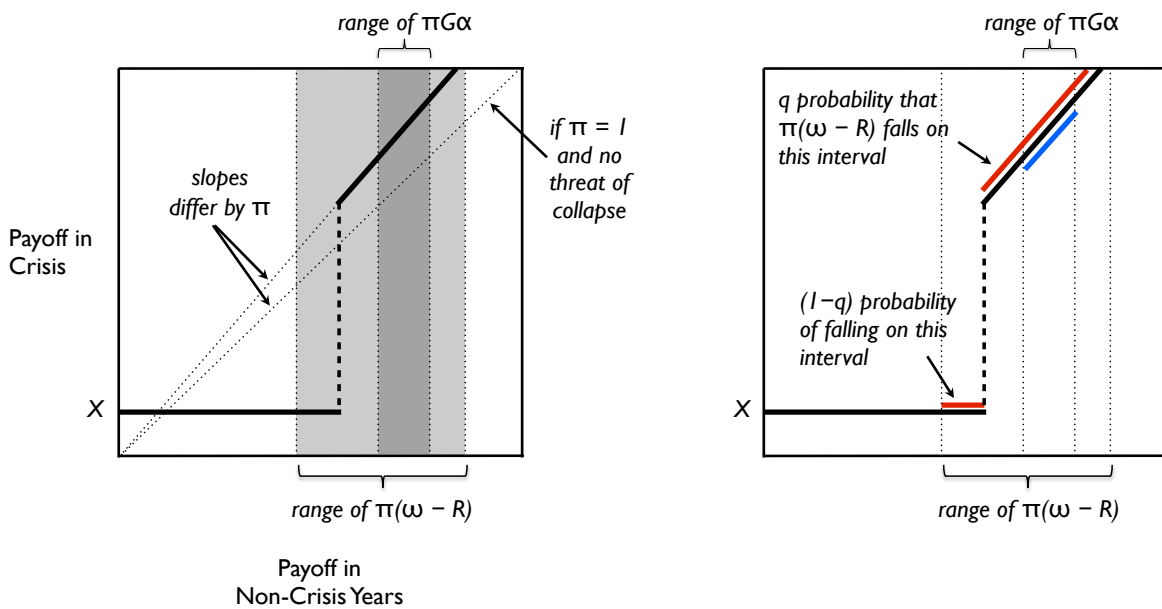
Figure 2: An illustration of the assumptions, comparing L's payoff in crisis (y-axis) to their payoff in non-crisis times (x-axis). First, revenue is more valuable in a crisis than in normal times (by a factor of π). Second, there is wider variation around the expected expropriation payoff (after all transaction costs have been assessed), $\pi(\omega - R)$, than around the expected payoff for simply keeping the investment as is, $\pi G \alpha$. Finally, a government may face a drop in payoff (to X) if additional financial market costs accompany a crisis-time expropriation.
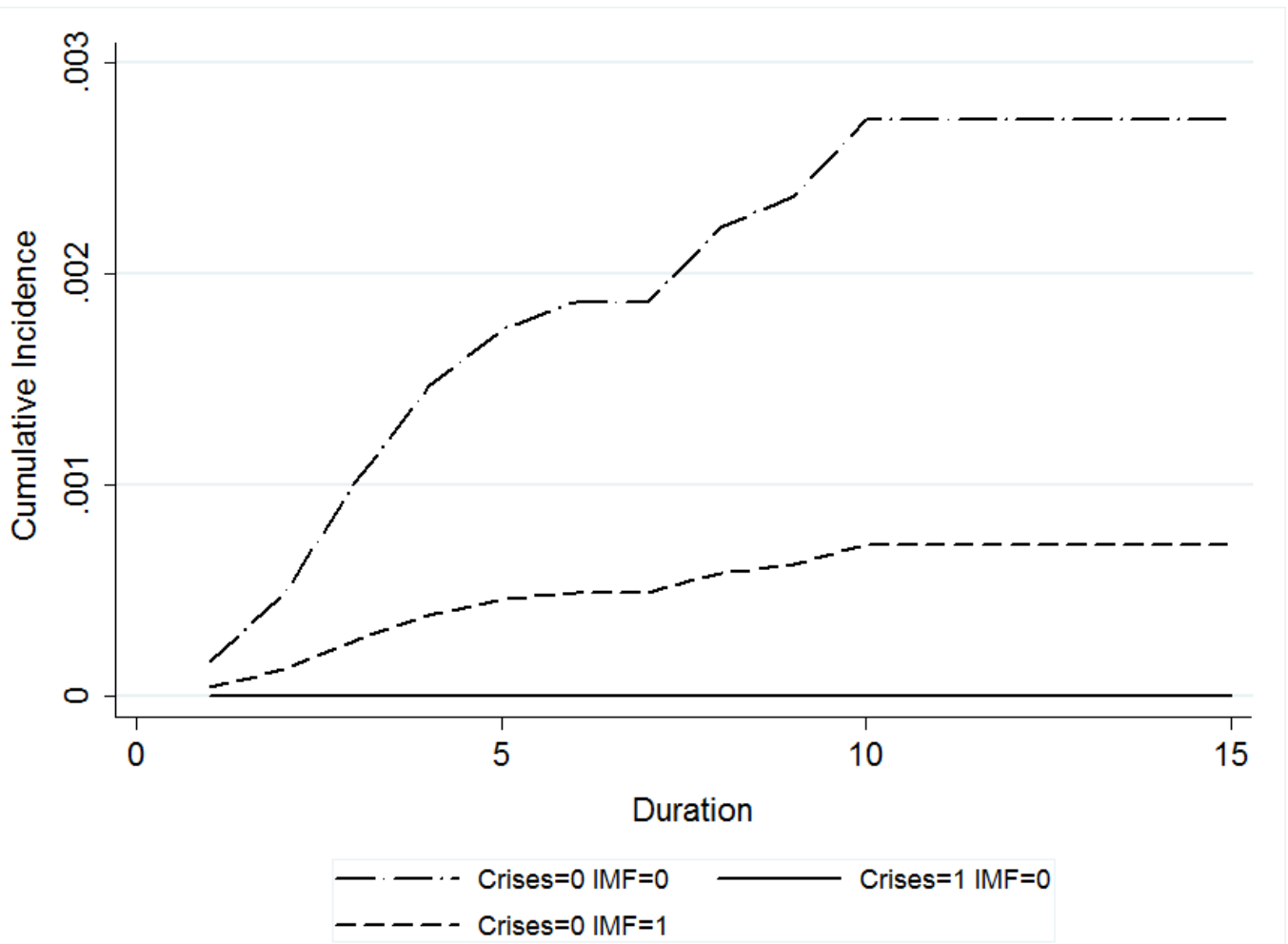
Figure 3: Cumulative incidence function of expropriation acts, post cold war period

Table 1: Distributions of investment expropriations

Region\Years	1971–74	1975–79	1980–89	1990–99	2000–06	Total
Africa	92	110	2	8	2	214
Latin America	80	34	11	3	14	142
Asia & Middle East	27	20	4	12	7	70
In crisis years	11	2	1	4	3	21
In normal years	188	162	16	19	20	405
Total	199	164	17	23	23	426

Table 2: Determinants of investment expropriations, 1971-2006

	Model 1	Model 2	Model 3	Model 4
Financial crisis		−0.786	−0.669	−1.379
		(0.398) ∗∗	(0.400)∗	(0.722)∗
IMF agreement			−0.594	−0.677
			(0.207) ∗∗∗	(0.217) ∗∗∗
Crises×IMF				1.273
				(0.869)
FDI (% GDP)	0.008	0.006	0.005	0.005
	(0.021)	(0.021)	(0.020)	(0.020)
log(GDP per capita)	3.578	3.757	3.887	3.763
	(2.489)	(2.490)	(2.449)	(2.450)
log(GDP per capita) squared	−0.351	−0.367	−0.387	−0.381
	(0.193)∗	(0.193) ∗∗	(0.190) ∗∗	(0.190)∗
Economic growth	−0.015	−0.020	−0.018	−0.018
	(0.013)	(0.014)	(0.014)	(0.014)
Trade openness	0.007	0.008	0.010	0.010
	(0.008)	(0.008)	(0.008)	(0.008)
Government spending	−0.005	−0.007	−0.010	−0.009
	(0.023)	(0.023)	(0.023)	(0.023)
Resource rent (% GDP)	0.037	0.036	0.030	0.029
	(0.012) ∗∗∗	(0.012) ∗∗∗	(0.012) ∗∗	(0.012) ∗∗
Democracy	−0.059	−0.056	−0.052	−0.053
	(0.023) ∗∗	(0.023) ∗∗	(0.023) ∗∗	(0.023) ∗∗
Oil prices	−0.012	−0.011	−0.010	−0.010
	(0.004) ∗∗∗	(0.004) ∗∗∗	(0.004) ∗∗	(0.004) ∗∗
Period 1980s	−2.323	−2.275	−2.180	−2.159
	(0.305) ∗∗∗	(0.306) ∗∗∗	(0.311) ∗∗∗	(0.311) ∗∗∗
Period 1990s	−2.518	−2.491	−2.340	−2.314
	(0.295) ∗∗∗	(0.297) ∗∗∗	(0.302) ∗∗∗	(0.302) ∗∗∗
Period 2000s	−1.981	−1.974	−1.874	−1.835
	(0.307) ∗∗∗	(0.308) ∗∗∗	(0.307) ∗∗∗	(0.308) ∗∗∗
Number of observations	2,169	2,169	2,169	2,169
Number of countries	79	79	79	79
Log likelihood	−491.3	−488.9	−484.5	−483.3
AIC	1164.6	1161.7	1155.0	1154.6
BIC	1681.6	1684.5	1683.4	1688.7

Notes. Standard errors are in parentheses. * p< .1; ** p< .05; *** p< .01.

Table 3: Determinants of expropriations, competing risk survival model 1973-2008

	Model 1	Model 2	Model 3	Model 4	Model 5
Financial crisis		-0.387	-16.097	-15.357	-16.944
		(0.434)	$(0.584)***$	$(0.582)***$	$(0.625)***$
IMF agreement				-1.334	-1.334
				$(0.626)**$	$(0.626)**$
Crises$\times$IMF					2.014
					(1.172)
FDI (% GDP)	-0.128	-0.135	-0.126	-0.108	-0.108
	$(0.056)**$	$(0.054)**$	$(0.057)**$	(0.068)	(0.068)
log(GDP per capita)	12.045	12.242	12.467	12.156	12.156
	$(6.940)*$	$(6.819)*$	$(7.019)*$	$(7.095)*$	$(7.095)*$
log(GDP per capita) squared	-0.875	-0.891	-0.905	-0.884	-0.884
	$(0.472)*$	$(0.465)*$	$(0.479)*$	$(0.482)*$	$(0.482)*$
Economic growth	-0.177	-0.182	-0.179	-0.182	-0.182
	$(0.033)***$	$(0.033)***$	$(0.031)***$	$(0.028)***$	$(0.028)***$
Trade openness	-0.006	-0.005	-0.005	-0.004	-0.006
	(0.016)	(0.016)	(0.015)	(0.016)	(0.016)
Government spending	0.033	0.034	0.038	0.027	0.027
	(0.047)	(0.048)	(0.045)	(0.048)	(0.048)
Resource rent (% GDP)	0.053	0.052	0.052	0.042	0.042
	$(0.018)***$	$(0.018)***$	$(0.018)***$	$(0.021)**$	$(0.021)**$
Democracy	-0.091	-0.087	-0.086	-0.080	-0.080
	$(0.048)*$	$(0.046)*$	$(0.044)*$	$(0.043)*$	$(0.043)*$
Oil prices	-0.011	-0.011	-0.012	-0.014	-0.014
	$(0.006)*$	$(0.005)**$	$(0.006)**$	$(0.006)**$	$(0.006)**$
Cold war period	-0.033	-0.020	-0.072	0.171	0.171
	(0.743)	(0.731)	(0.727)	(0.686)	(0.686)
Number of observations	32,843	32,843	32,843	32,831	32,831
Number of countries	106	106	106	106	106
Log likelihood	-103.5	-103.2	-102.7	-100.6	-100.6

Notes. Standard errors are in parentheses. * p$<$ .1; ** p$<$ .05; *** p$<$ .01.

Table 4: MIGA Pre-Claims (1998-2010)

Country	Year	Sector	Issue
China	1998	Power	Tariff dispute
Indonesia	1998	Telecom	Right to operate during crisis
Guyana	1998	Mining	Environmental issues
Guatemala	1998	Power	Tariff Dispute
Costa Rica	1998	Tourism	Environmental issues
Pakistan	1999	Power	Tariff adjustment during crisis
Tanzania	2000	Mining	NGO pressure
Kazakhstan	2001	Telecom	Dispute over bandwidth
Argentina	2002	Oil and Gas	Tariff adjustment during crisis
Argentina	2003	Transport	Tariff adjustment during crisis
Moldova	2003	Power	Tariff dispute/Legality of privatization
Kyrgyzstan	2003	Transport	Revoking licenses
Dominican Republic	2003	Power	Tariff adjustment during crisis
Kenya	2003	Power	Tariff dispute
Dominican Republic	2003	Power	Tariff adjustment during crisis
Ecuador	2003	Water	Tariff dispute
Nicaragua	2003	Power	Tariff dispute
Argentina	2004	Oil and Gas	Inability to export
Guatemala	2004	Power	Contract dispute
Nigeria	2004	Service	Contract renegotiation
Azerbaijan	2004	Agribusiness	Inability to export
Egypt	2004	Service	Payment dispute
China	2005	Water	Joint venture dispute
Senegal	2005	Service	Contract cancellation
Afghanistan	2007	Agribusiness	Payment dispute
Benin	2007	Telecom	License fee dispute
DR Congo	2008	Mining	Tariff dispute/Legality of privatization
Benin	2009	Tourism	Environmental issues
Guinea	2009	Telecom	Contract cancelation
Guinea-Bissau	2009	Tourism	License fee and tax dispute
Uganda	2009	Power	Legality of privatization
Djibouti	2010	Transport	Inability to transfer capital
Sierra Leone	2010	Service	License fee dispute
Senegal	2010	Service	License fee dispute