Routledge
Taylor & Francis Group

Impact of Political Risk on FDI Revisited—An Aggregate Firm-Level Analysis

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Unlike previous studies on political risk and foreign direct investment (FDI) that used macro-level FDI data to test micro-level theories, I make use of aggregate data on U.S. firms' investment activities in 101 developing countries during the period 1997–2007 to reassess the propositions. Using a multilevel mixed–effects linear instrumental variable approach, I find that lower political risk is associated with (a) an increase in U.S. firms with equity stake of 51% and above, (b) a higher proportion of fixed assets, and (c) an increase in the return on investments, after controlling for a host of relevant factors. Further analysis reveals the relationship is also strong with respect to investments in total assets and sales. The results are robust to alternative data, instruments, and estimation techniques. These results bring to fore the multiple risk hedging strategies available for foreign firms operating in high risk environments.

KEYWORDS   operations of firms and political risk, U.S. firms

"Capital is a coward. It doesn't go where it perceives danger"
                    –Anonymous investor in Zimbabwe, 10 May 2010

The widely known ownership, localization, and internalization (OLI) paradigm developed by John H. Dunning (1993) identifies ownership, internalization, and location advantages as the main reasons why firms invest abroad. Among them, locational advantages have received enormous attention in the current literature regarding foreign direct investment (FDI). Within the locational factors, the impact of political risk on FDI, among other studies, has received a lot of attention in the literature (see Aguiar et al. 2006; Biglaiser and DeRouen 2006; Busse and Hefeker 2007; Egger and Winner 2005; Henisz 2000; Jensen 2003, 2006; Jun and Singh 1996; Le and Zak 2006; Li and Resnick 2003; Schneider and Frey 1985; Wheeler and Mody 1992). Broadly, political risk can be defined as the risks faced by firms regarding unexpected alternations in legal regulations by the host country government guiding FDI policy. A good example of this would be the sudden change in the FDI policy regime in Zimbabwe on 1st March 2010, which requires businesses whose assets are worth over U.S.$500,000 to be majority-owned by indigenous Zimbabwean citizens (Lowrey 2010). Such changes in FDI policy of the host country, which are anti–multinational corporations (MNCs), significantly deter FDI. It is abundantly clear from this example that political risk is in fact firm specific or even project specific and hence requires a micro level analysis with focus on firm level activities.

Despite this, a common feature of the existing research on this topic is that it is overwhelmingly dominated by macro-level FDI data, ignoring firm level analysis that might explain why some investors seem to be vulnerable to political risk. Existing studies use macro-level data to test micro-level issues, which overlook the flexibility of MNCs production strategies and their ability to react to these heightened political risks. Second, even those who have addressed these issues do not control for an endogeneity problem. It is quite possible that foreign MNCs operations in the host country are endogenous to political risk. Higher shares of profits by MNCs, at least in developed countries with fragile political systems, can put pressure on the government to expropriate the assets of these firms for political gains. Some noteworthy examples include the current regime in Zimbabwe and the socialist government in India during 1977–1979. Not taking this endogeneity into account would induce biased results. This article contributes to the literature by filling these gaps using aggregate firm level data of U.S. MNCs operating in 101 developing countries during the period 1997–2007, specifically analyzing how these firms strategize and direct their operations in the wake of high political risk. Extending this analysis based on the arguments of "obsolescing bargaining" from Vernon (1971), "political hazards" from Henisz (2000) and "political institutions and political risks facing MNCs" from Jensen (2006), I examine how firms tailor their operations in the wake of heightened political risk, controlling for the possibility of endogeneity. I expect firms to use alternative strategies such as investing less in wholly owned subsidiaries and favoring investment in liquid assets over sunk assets.

The rest of the article is organized as follows: a brief review of literature is presented first. Theoretical arguments on the relationship between firm operations and political risk are offered next. The following section then introduces the measures of political risk and investment activities of the U.S. foreign affiliates. The data and model specifications are then presented, followed by the empirical results and the conclusion.

REVIEW OF LITERATURE

I begin by reviewing studies on the effects of various forms of political risks on FDI in particular. Even though this is not my primary focus, such a review is useful in order to establish whether or not political risk has a statistically significant impact on FDI and on a country's attractiveness as a host for FDI. Not surprisingly, empirical studies do not fail to find a clear confirmation. The aforementioned studies have all found that political risk has at least some impact on FDI. However, there are also studies which have negative findings in this regard, see Tuman (2009) for example. Extending this topic further, Pinto and Pinto (2006) analyze how FDI reacts to changing political conditions in host countries. Their model predicts that the incumbent government's partisanship affects the decision of foreign investors to invest in different sectors of OECD countries. Their findings reveal the existence of such partisan cycles in the patterns of FDI across countries and over time at the industry level.

Turning to the region specific effects, Daude, Mazza, and Morrison (2003) find that political instability is an important determinant of inward FDI from the U.S. and Japan to 27 countries in Latin America. On the other hand, when examining the political determinants of U.S. FDI in Latin American countries, Tuman and Emmert (2004) found political instability to have a significant effect on the investment behavior of U.S. multinational firms. Moreover, they also find that a poor human rights track record and the occurrence of military coups d'etat positively influence U.S. FDI flows in this region. Focusing on 19 Latin American and Asian countries, Al Nasser (2007) finds that besides fundamental factors such as market size and GDP growth, sociopolitical stability and efficient legal framework likewise have an effect on FDI inflows. A similar study by Montero (2008) shows that Latin America is no exception to the aforementioned pattern of the effects of political instability on FDI. Turning to the effects of a wider range of political reforms on FDI, Malesky (2008) claims to find that de facto decentralization (in the form of autonomous reforms experiments by subnational leaders in 61 Vietnamese provinces) may attract FDI in subsequent years. In a more recent study, Dreher, Mikosch, and Voigt (2010) maintain that the extent to which membership in international organizations restricts a country from pursuing policies that are harmful to investors, can consequently signal lower political risk.

As highlighted earlier, my main concern with the analysis of the above listed studies is that they ignored firm level analysis, which can be useful in explaining why some investors seem to be vulnerable toward political risk and the ability MNCs (their production strategies) have in reacting to such risks. Finally, unlike my study, they do not tackle potential reverse causality with the help of instrumental variable regression analysis, representing a failed opportunity to improve their analyses.

THEORY AND HYPOTHESES

In this section, I present the hypotheses by discussing the impact of various forms of political risk on U.S. foreign affiliates' operations. The variables of interest are the U.S. majority-owned firms (in which a U.S. personal or U.S. parent company owned more than 50% of equity stake) operating in the host country, investments in fixed and total assets, and return on investments.

Firm-Level Responses to Political Risk in the Host Country

In a research study titled "Why doesn't capital flow from rich to poor countries?" Alfaro et al. (2008) highlights political risk as the major factor influencing foreign investors. MNCs, according to them, respond to reductions in political risk by increasing their investments. The main reason why MNCs are sensitive to political risk is the fear of direct expropriation, such as nationalization of foreign investment projects. The political risk is not limited to the threat of expropriation alone, but emanates from hostile policies related to undue extraction of rents from MNCs exponentially, known as indirect expropriation (Eaton and Gersowitz 1984; Kobrin 1985). Thus, this study focuses on these two types of expropriations. First, direct expropriation can lead to uncertainty in the minds of potential foreign investors[1] (Henisz 2000) because FDI, while mobile *ex ante*, is relatively illiquid *ex post* (Vernon 1971). In other words, before the foreign investor commits to the investment, they have the upper hand vis-à-vis the host country government in terms the bargaining power to extract investment incentives. But once committed to, the investments become vulnerable as the bargaining power now shifts to host country government, creating the risk of project obsolescence. The host country government may then extract rents from the foreign investors up to the value of the total sunk costs.[2] The ramifications will be even higher for MNCs in the case of capital intensive

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[1]In a series of papers, Henisz (2000, 2002a, 2002b, 2004) has found that MNCs are extremely sensitive to the changes in institutional constraints placed on the executive. Likewise, regime change risk and its relationship to FDI is explored by Resnick (2001) and Li and Resnick (2003).

[2]Of course there are other types of political risk arising out of dissent and uprising, leading to a crisis like in Cuba in 1965. The resulting adverse regime change can also increase contractual hazards.

projects. This is due to the fact that these huge investments become a "sunk cost," which is very difficult to plough back, as well as the gestation period for returns being longer.[3]

Second, although direct expropriation is a remote possibility in the current environment (see Kobrin 1984), this is by no means a guarantee that foreign investors are free from political risk. Governments who commit to providing property rights protection may buckle under lobbying pressure from local firms seeking preferential treatment vis-à-vis the foreign firms. This means that foreign investors would no longer be equally treated and protected compared to local firms. This indirect expropriation includes: altering legal laws and regulations to benefit local firms over foreign firms; modification of existing FDI laws; caps on repatriation of profits and dividends to the parent company in the home country; removal of the tax benefits promised by the government under the contract of investment; curbing tax holidays; failure to increase tariffs paid to the investor as agreed in contract; denial of licenses to expand the business; denial of providing land at concession rates as per the contract and backtracking on similar such promises regarding infrastructure and finances. Both direct and indirect expropriations are a matter of grave concern for foreign investors as it jeopardizes the safety of their operations in the host country.

There are also other possible indirect effects of heightened political risk. The recent studies by Gassebner and Méon (2010) and Coeurdacier, Santis, and Aviat (2009) highlight the impact of political turmoil on the application of formal laws providing investor protection such as existing legal rules and provisions. The basic argument according to Gassebner and Méon (2010) is that heightened political risk can alter or even in some cases abolish the existing formal laws. Thus, the formal laws, such as creditor protection laws, can do little to protect foreign investor if those rules and laws are easily revoked or not formally applied. In other words, functioning of those institutions that seek to provide investor protection significantly depend on the stability and credibility of the political system.

However, this does not mean that MNCs can completely shy away from investing in some of the more lucrative markets as suggested by Feinberg and Gupta's (2009). It is logical to assume that MNCs are driven by the returns they earn on their investments. If this is the case, then a high return on the investment plays a key role in the way MNCs react to different types of political risks in a host country (Fatehi and Safizadeh 1994). Therefore, the extent to which MNCs react significantly depends on a host of factors, most predominantly the returns they expect. Jensen (2006) points out various means through which MNCs can structure their operations in such a way that can minimize the risk of potential losses. In fact many U.S. foreign affiliates have a significant presence in high-risk countries such as Angola and

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[3]Biglaiser and deRouen (2006) find that minimizing expropriation risk is more attractive to U.S. firms wanting to invest in Latin American countries than economic policy reforms necessarily are.

Equatorial Guinea, among others. MNCs can resort to several measures, like insuring against the political risk involved in operating in a hostile country, for example (Jensen 2006). Likewise, firms can invest in smaller production facilities or reduce their proportion of investments in fixed assets, or even increase their share of liquid assets over sunk assets. Alternatively, firms can increase their within-firms sales and trade internalization (Feinberg and Gupta 2009). Furthermore, MNCs can outsource some operations to local subcontractors or enter into joint ventures (JVs) with local firms to hedge against political hazards. Entering into JVs is one of the most preferred options, according to Henisz (2002a), because local firms have profound knowledge about the local market and politics. MNCs therefore seek to make use of the JVs with domestic firms to circumvent political risk. Thus, I expect:

H1: *Ceteris paribus, high political risk is associated with a decline in wholly-owned U.S. subsidiaries in the host country.*
H2: *Ceteris paribus, an increase in political risk is associated with a decline in investments in overall and fixed assets.*
H3: *Ceteris paribus, a high level of political risk is associated with a decline in the return on investments.*

MEASURING POLITICAL RISK AND FOREIGN FIRMS' OPERATIONS

The main dependent variable is the operations of U.S. foreign affiliates in the developing countries. For the U.S. firms' operations, I select four variables depending upon the availability of the data: (a) number of U.S. majority-owned foreign affiliates operating in the host country; (b) value of the U.S. firms' fixed assets (logged); (c) value of the U.S. firms' total assets (logged); and (d) net income generated by U.S. firms (logged).[4] Because I do not have specific data by firm, (like Henisz [2000] and Jensen [2006] on the exact share of foreign equity held by U.S. firms) or the data on the number of JVs between U.S. firms and local firms, I make use of the aggregate data available for the U.S. majority-owned foreign affiliates operating in the host country. This is a proxy for the significant presence of U.S. owned firms, which are basically not JVs. By definition, a majority-owned foreign affiliate is a firm in which the combined direct and indirect ownership interest of the U.S. parent firm exceeds 51%.

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[4] I make use of logarithm to control for skewed data. The value of assets and income are in U.S.$ million, evaluated using a historical cost basis approach. Although the number of U.S. majority-owned affiliates is a count variable, I am not aware of an intrument variable (IV) method for count dependent variable.

The data on investments in assets (total and fixed) and the net income generated is an aggregate of all the U.S. firms operating in developing countries (non-OECD). This kind of data is collected by Bureau of Economic Analysis (BEA) every year through a survey of firms' activities that meet a minimum threshold level of assets, sales, and net income. The BEA also conducts a comprehensive survey of its firms established abroad once every five years. Under this scheme, it is mandatory for the U.S. firms stationed abroad to provide detailed information to the BEA. This survey is known to be of high quality in its standard and is strictly confidential. Usually, the BEA allows selected researchers to work as special unpaid employees, conducting research on various topics using this confidential data within the office premises of BEA. However, in its reports the BEA publishes the aggregate data of all U.S. firms operating in major countries in the public domain. I make use of this annual dataset from their website during the period of 1997–2007 for 101 developing countries. The data on investments in assets and net income generated by U.S. firms are reported in U.S.\$ million and computed using a historical cost basis approach. Occasionally data is missing due to the suppression of the information by firms or BEA authorities for security reasons. Such cases would be deemed as "missing values" and hence unbalanced panel data.

In order to examine the effects of political risk on MNCs operations in developing countries, I make use of several measures of political risk. First, I follow several studies which argue that democracy is key to attracting MNCs (Jensen 2006), as democratic regimes protect tend to protect property rights and are efficient in distributing resources (Biglaiser and Danis 2002, Jakobsen and de Soysa 2006). It is also argued that democratic regimes are more transparent in their policymaking processes, hence making it easier for the MNCs operating in these countries to anticipate adverse policy changes (Rosendorff and Vreeland 2006). However, others expect a negative relationship between democracy and FDI (Li and Resnick 2003).[5] I capture democracy using the polity IV political regime index. I subtract the autocracy score from the democracy score, as is standard when using the Polity data. The democracy score ranges from +10 (full democracy) to −10 (full autocracy). For the robustness check, I replace the polity IV index with the Freedom House civil and political liberties index (coded on a 0–7 scale, with the highest value representing the worst liberties).

Although the effects of democracy on FDI are a much debated topic in the current literature, there is still a consensus regarding the importance of political constraints on the executive due to the presence of veto players who can block adverse FDI policy changes. These various constraints significantly reduce the risk of manipulating FDI policy or making across-the-board policy changes. Therefore, I believe that MNCs will be more sensitive to the

[5]For detailed arguments and counterarguments on the effects of democracy on FDI, see Li and Resnick (2003) and a critique of their study by Jakobsen and de Soysa (2006).

various forms of political constraints in the system (a proxy for how power is used by the regime) rather than democracy *per se*. I use several proxies, safely ignoring subjective indices,[6] which broadly capture the constraints on the executive and political system. Following others (Dreher et al. 2010) I make use of the Political Constraints Index III and V developed by Henisz (2002a, 2002b). The former captures the veto power of different independent branches of the government (such as the executive, and lower and upper chambers of the legislative) on government polices. On the other hand, the latter measure also includes the veto powers of the judiciary and sub-federal institutions over government policies in each country. These measures are further modified to capture the extent of preference heterogeneity within each legislative branch. Greater within-branch heterogeneity increases (decreases) the costs of overturning policy for aligned (opposed) branched. Both the indices are coded on a scale of 0 (most hazardous) to 1 (most constrained).

As an alternative measure, I also employ the executive constraints index from the Polity IV database. This index measures the impact of institutionalized constraints have on the power of the chief executive's decisionmaking process in any particular state. Thus, the index mirrors the checks and balances in the policymaking process. This index is coded on a seven-point scale ranging from 0 (unlimited authority) to 7 (constrained authority). For an additional robustness check, I also use the checks and balances measure developed by Beck et al. (2001) and Keefer and Stasavage (2003). This measure focuses on the ability of other agents to restrain the government. The index ranges from one (few veto players) to 17 (high number of veto players). See Appendix 2 for a precise description and the data sources for these variables.

DATA AND METHODS

I analyze a time-series cross-section dataset (TSCS) across 101 non-OECD countries, covering the years 1997–2007 (see Appendix 1). I estimate our regressions employing the Pooled OLS with robust standard errors, specified as follows:

$$MNCO_{it} = \phi_1 + \psi_2 \, H_{it} + \psi_3 \, Z_{it} + \upsilon_t + \omega_{it} \qquad (1)$$

$MNCO_{it}$ denotes U.S. firms operations (discussed in the previous section) in the year t and country i; H_{it} denotes hypothesis variable(s), namely polity IV and political constraints indices; υ_t are time fixed effects; and ω_{it} is the error term. Country-fixed effects are not included because some of the variables (including our political risk indicators) remain largely time invariant. Usage

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[6]Such as ICRG's political risk index and BERI group's operational risk index.

of two-way fixed effects will not only be collinear with largely time-invariant regressors, but also generate biased estimates (Beck, 2001). Also note that the Hausman test favors this model over the pooled two-way fixed effects model. I return to the issue of two-way fixed effects later.

The vector Z_{it} captures the control variables, including other potential determinants of FDI which are obtained from the existing literature on the subject. I follow Dunning (1988a, 1993), Wheeler and Mody (1992), Blonigen (2005) and other comprehensive evaluations on determinants of FDI (Blonigen and Davies 2004). Accordingly, I control for income by including per capita GDP (logged) in US$, year 2000 constant prices, rate of growth in per capita GDP, total population (logged) (Dunning 1988b; Scaperlanda and Laurence 1969), and availability of domestic credit/GDP to measure financial development in the host country (World Bank 2008). Following Campos and Kinoshita (2008), I include electricity consumption in kilowatts (logged) as a proxy for infrastructure. I prefer this variable over others because it not only captures the availability of electricity, but also the cost. I include exchange rates vis-à-vis US$, an important determinant of FDI (Cushman 1985). I also capture resource wealth using oil and mineral exports as a share of total exports, constructed by using data from the World Trade Organization (WTO). Following Asiedu and Lien (2004), I include an index of FDI policy reforms covering capital account convertibility, current account convertibility, existence of multiple exchange rates from Annual Report on Exchange Arrangements and Exchange Restrictions published by the IMF.[7] Finally, I include a variable capturing conflicts and their intensity by assigning the value of 4 if intensity is high and 0 otherwise. The descriptive statistics for both datasets are presented in Appendix 3.

Endogeneity Concerns

It is quite possible that the key explanatory political risk variables are endogenous to MNC operations, that is, it might be the operations of MNCs that lead to subsequent expropriation risk and not the other way around. For example, high profits resulting from expansion in the host country could draw the attention of domestic firms who then lobby for restricting the operations of MNCs. Likewise, in a hostile political environment (like in Zimbabwe) the regime can use expropriation of MNCs as a tool to garner further political support, especially from the poorer sections of society. Not taking this endogeneity into account would induce bias in my estimates. The normal procedure would therefore be to utilize an instrumental variable (IV) approach using two-stage least squares with IV (2SLS – IV henceforth) with time-fixed effects. Although it is true that inclusion of country dummies may cause bias in the estimation for the reasons illustrated above, it may not be the best

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[7]I thank Antu Murshid and Elizabeth Asiedu for readily sharing this data with me.

approach to simply ignore unit heterogeneity. To overcome this problem, I employ multilevel mixed-effects linear regression model with endogenous covariates, which allows me to model heterogeneity as random intercepts at the country level (Beck and Katz 2007). However, in the case of the dependent variable with the number of U.S. majority-owned foreign affiliates in operation, I use the negative binomial method due to the count nature of the data. I find the data to be strongly skewed to the right (with an accumulation of observations at one) and display significant overdispersion (with the variance being greater than the mean), hence the use of negative binomial estimator (Cameron and Trivedi 1998). However, employing instrumental variables in multilevel mixed-effects linear and negative binomial models may be problematic. Therefore, when conducting the instrumental variable estimations, I manually program and run the regressions because there is no function in STATA or other relevant software programs to command instrumental variable regressions for multilevel mixed-effects linear and negative binomial methods. First, following Cho (2010) I regress the respective endogenous variables—the Polity IV, Political Constraints index III, and V variables—on the two instruments and the other control variables by using the ordered probit (which are the first stage regressions). I then predict the values of the respective endogenous variables and regress the dependent variables—majority-owned foreign affiliates in operation, Fixed Assets, Total Assets, and Total Income—by using multilevel mixed-effects linear models (the second-stage regressions). In addition, the 2SLS-IV estimation with time-fixed effects was employed as a part of the robustness check.

For instruments, I make use of the number of nongovernmental organizations (NGOs) and intergovernmental organizations (IGOs), combined with the opposition fractionalization index in parliament coded between 0–1. While the data for NGOs and IGOs are drawn from various international organization databases, the opposition fractionalization index comes from Beck et al. (2001). Both the variables are crucial in imposing serious losses of reputation on regimes (Jensen 2003) who do not respect property rights. The intensity of this loss in reputation is profoundly high when there is a united political opposition and strong NGO presence, as both groups exert pressure against such illegitimate moves. The costs associated with "naming and shaming" are important because the median voter will prefer those governments which support capital importation (Bhagwati 1999). This is because new MNCs generally offer higher wages than local firms and are then likely to significantly alter labor market conditions in the long run[8] (Brown, Deardorff, and Stern 2003).

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[8] Apart from this, MNCs bring in advanced technologies which then have spillover effects on domestic firms in terms of wages, productivity, and technical know-how. In addition, MNCs also create new jobs for locals and mobilize savings (for more, see Dunning 1994; Lipsey 2002). These benefits certainly create a vote bank constituency among the working and middle classes.

With respect to my alternative estimations, 2SLS-IV, the validity of the selected instruments depends on instrument relevance and the exclusion restriction. First, it must be correlated with the explanatory variable in question—otherwise it has no power. Bound, Jaeger, and Baker (1995) suggest examining the F-statistic on the excluded instruments in the first-stage regression. The selected instrument would be relevant when the first-stage regression model's F-statistic is above 10. However, the F-test has been criticized in the literature as being insufficient for measuring the degree of instrument relevance in the presence of multiple endogenous variables (Stock et al. 2002, Hahn and Hausman 2002, 2003). In this case, a more powerful test is the Cragg-Donald test (Cragg and Donald 1993, Stock et al. 2002). A Cragg-Donald (CD) statistic above the critical value (10% maximal test size) indicates the rejection of weak instruments. Second, the selected instrument should not vary systematically with the disturbance term in the second-stage equation, that is, $[\omega_{it} \mid IV_{it}] = 0$. This assumption would be violated if the selected IV has an influence on the dependent variable additional to its influence on the explanatory variable. As far as my instruments are concerned, I know of no empirical argument linking the mere presence of NGOs and fractionalized governments effecting firms' operations directly. Nevertheless, I check the exclusion criteria using the Hansen J-test (Hansen 1982) and the null-hypothesis of exogeneity cannot be rejected at a conventional level of significance. Alternatively, I also run reduced form regressions suggested by Angrist and Kruger (2001).

EMPIRICAL RESULTS

The results of the regression estimates used to assess the impact of political risk on U.S. firms operations are presented in Tables 1–4. While the results in Table 1 are estimated using negative binomial-IV and 2SLS-IV methods, results in Tables 2–4 are estimated using multilevel mixed linear-IV and 2SLS-IV methods. Table 1 reports the main findings, capturing the effects of the three main political risk indicators on the nature of firm ownership. I find that the polity IV index (of democracy) has a statistically significant positive impact on U.S. firms with a majority equity stake. An increase in the standard deviation of the polity IV index (6.46) would increase the presence of U.S. firms (log) by 1.08 (around 12 firms), which is about 68% of the standard deviation of the average polity IV index (see column 2). The positive effect suggests that movement toward a free electoral competitive system increases the presence of U.S. firms with a majority equity stake holding. These findings are reconfirmed by both the instrumental variable methods (see column 1 and 2, Table 1). Not so surprisingly, in the next columns I find that the positive significant impact of political constraints indices III and V are higher than the polity IV index. This suggests that how power is acquired (electoral

TABLE 1 Political Risk and Equity Holding of U.S. Foreign Affiliates

Variables	(1) Majority NBR-IV	(2) Majority 2SLS-IV	(3) Majority NBR-IV	(4) Majority 2SLS-IV	(5) Majority NBR-IV	(6) Majority 2SLS-IV
Constant	−3.904*** (0.646)	−3.173*** (0.543)	−3.777*** (0.609)	−4.507*** (0.767)	−3.266*** (0.586)	−3.620*** (0.799)
Per capita GDP (log)	0.490*** (0.0468)	0.264*** (0.0458)	0.422*** (0.0455)	0.289*** (0.0612)	0.394*** (0.0445)	0.237*** (0.0648)
Per capita GDP growth rate	−0.0107* (0.00651)	0.00590 (0.00897)	−0.00625 (0.00644)	0.00127 (0.0122)	−0.0114* (0.00633)	−0.0106 (0.0124)
Population (log)	0.276*** (0.0450)	0.147*** (0.0335)	0.238*** (0.0421)	0.200*** (0.0381)	0.198*** (0.0406)	0.122** (0.0537)
Infrastructure (log)	0.237*** (0.0395)	0.317*** (0.0380)	0.216*** (0.0373)	0.269*** (0.0528)	0.195*** (0.0360)	0.290*** (0.0550)
Domestic credit/GDP	0.00529*** (0.00120)	0.00975*** (0.00163)	0.00605*** (0.00118)	0.00508** (0.00198)	0.00703*** (0.00118)	0.00350 (0.00216)
Exchange rate	−2.46e−05 (1.90e−05)	1.64e−05 (1.34e−05)	−9.70e−06 (1.86e−05)	4.11e−05** (2.00e−05)	−5.95e−06 (1.85e−05)	−5.40e−05** (2.67e−05)
Oil exports share	−0.000239 (0.00132)	0.0114*** (0.00177)	0.00308** (0.00134)	0.00751*** (0.00199)	0.00379*** (0.00132)	0.0103*** (0.00227)
Labor growth	0.0575** (0.0229)	0.182*** (0.0257)	0.0902*** (0.0218)	0.181*** (0.0317)	0.107*** (0.0217)	0.186*** (0.0372)
FDI policy reforms index	−0.00485 (0.134)	0.845*** (0.183)	0.322** (0.133)	0.352 (0.229)	0.283** (0.125)	0.731** (0.290)
Conflict for regime change	−0.105 (0.0904)	0.112 (0.121)	−0.0437 (0.0893)	0.196* (0.111)	−0.0175 (0.0892)	0.236** (0.115)
Polity IV Democracy Index	0.514*** (0.197)	0.166*** (0.0155)				
Political Constraints Index III			1.705*** (0.241)	5.907*** (0.665)		
Political Constraints Index V					1.848*** (0.226)	4.138*** (0.495)

	(1)	(2)	(3)	(4)	(5)	(6)
Adjusted R-squared	0.115		0.252		0.553	
First stage *F* Statistic	72.82***		73.4***		81***	
Anderson canon correlation LR test	130.75***		114.13***		192.49***	
Cragg-Donald statistic	141.84***		112.47***		216.7***	
Hansen J statistic (*p* value)	0.4054		0.5256		0.4565	
Pagan-Hall general statistic (*p* value)	0.4622		0.7177		0.3729	
Wu-Hausman *F* test	155.19***		95.13***		33.38***	
Durbin-Wu-Hausman χ^2 test	133.23***		87.23***		32.89***	
Pseudo R^2		0.1131		0.1112		0.1064
LR χ^2		1003***		986.2***		943.2***
Likelihood-ratio test of alpha=0		28000***		28000***		29000***
No. of countries	101	101	101	101	101	101
No. of observations	814	873	819	873	828	873

Notes: Robust standard errors in parentheses; ***$p<.01$, **$p<.05$, *$p<.1$.
NBR-IV = Negative binomial regression with instrumental variable method.

TABLE 2 Political Risk and U.S. Foreign Affiliates' Investments in Fixed Assets

Variables	(1) log FA MLE-IV	(2) log FA 2SLS-IV	(3) log FA MLE-IV	(4) log FA 2SLS-IV	(5) log FA MLE-IV	(6) log FA 2SLS-IV
Constant	−0.255 (1.043)	−3.270*** (0.861)	−0.586 (1.042)	−4.506*** (1.040)	−0.519 (1.037)	−4.210*** (1.074)
Per capita GDP (log)	0.563*** (0.114)	0.283*** (0.0680)	0.546*** (0.113)	0.293*** (0.0818)	0.532*** (0.113)	0.268*** (0.0855)
Per capita GDP growth rate	0.000478 (0.00386)	0.0453*** (0.0121)	0.00328 (0.00396)	0.0419*** (0.0142)	0.000837 (0.00385)	0.0298** (0.0145)
Population (log)	0.0325 (0.0479)	0.343*** (0.0485)	0.0459 (0.0477)	0.366*** (0.0532)	0.0409 (0.0474)	0.334*** (0.0649)
Infrastructure (log)	0.461*** (0.0850)	0.257*** (0.0604)	0.425*** (0.0849)	0.206*** (0.0722)	0.412*** (0.0853)	0.181** (0.0739)
Domestic credit/GDP	0.000716 (0.00177)	0.00920*** (0.00224)	0.000606 (0.00174)	0.00396* (0.00224)	0.000652 (0.00174)	0.00254 (0.00236)
Exchange rate	8.52e−07 (5.15e−05)	7.28e−05*** (2.36e−05)	5.92e−06 (5.12e−05)	8.89e−05*** (2.92e−05)	2.89e−06 (5.11e−05)	−1.59e−05 (4.04e−05)
Oil exports share	−0.000245 (0.00221)	0.0314*** (0.00317)	0.00159 (0.00230)	0.0278*** (0.00300)	0.00138 (0.00227)	0.0294*** (0.00330)
Labor growth	0.0286** (0.0132)	0.173*** (0.0305)	0.0425*** (0.0141)	0.178*** (0.0332)	0.0469*** (0.0147)	0.187*** (0.0362)
FDI policy reforms index	0.110 (0.210)	0.938*** (0.289)	0.127 (0.188)	0.440 (0.319)	0.175 (0.193)	0.649* (0.354)
Conflict for regime change	−0.0493 (0.0494)	0.175 (0.133)	−0.0353 (0.0492)	0.139 (0.200)	−0.0166 (0.0498)	0.155 (0.196)
Polity IV Democracy Index	0.522* (0.306)	0.206*** (0.0238)				
Political Constraints Index III			1.063*** (0.330)	7.120*** (0.844)		
Political Constraints Index V					1.218*** (0.369)	4.858*** (0.590)

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	(1)	(2)	(3)	(4)	(5)	(6)
Adjusted R-squared		0.352		0.150		0.064
First stage F Statistic		81.13***		84.89***		93.67***
Anderson canon correlation LR test		210.29***		139.05***		173.17***
Cragg-Donald statistic		235.50***		149.92***		190.34***
Hansen J statistic (p value)		0.0203		0.8979		0.6164
Pagan-Hall general statistic (p value)		0.5009		0.2299		0.0598
Wu-Hausman F test		29.12***		62.60***		101.10***
Durbin-Wu-Hausman χ^2 test		28.93***		60.05***		93.27***
LR test vs. linear regression	1871.3***		1831.1***		1826.1***	
Log restricted-likelihood	−994.3		−990.6		−990.2	
No. of countries	95	95	95	95	95	95
No. of observations	999	946	999	935	999	930

Notes: Robust standard errors in parentheses; ***p<.01, **p<.05, *p<.1;

MLE-IV = multilevel mixed linear estimations with instrumental variable method;

Log FA = fixed assets in US$ million (logged).

TABLE 3 Political Risk and U.S. Foreign Affiliates' investments in Total Assets

Variables	(1) log TA MLE-IV	(2) log TA 2SLS-IV	(3) log TA MLE-IV	(4) log TA 2SLS-IV	(5) log TA MLE-IV	(6) log TA 2SLS-IV
Constant	-1.851^{**} (0.917)	-2.501^{***} (0.760)	-1.978^{**} (0.918)	-3.272^{***} (0.927)	-2.037^{**} (0.907)	-2.969^{***} (0.950)
Per capita GDP (log)	0.886^{***} (0.103)	0.462^{***} (0.0617)	0.879^{***} (0.102)	0.432^{***} (0.0733)	0.841^{***} (0.102)	0.417^{***} (0.0750)
Per capita GDP growth rate	-0.00169 (0.00313)	0.0181^{*} (0.0110)	0.000825 (0.00322)	0.0179 (0.0133)	-0.00132 (0.00311)	0.00885 (0.0136)
Population (log)	0.111^{***} (0.0397)	0.283^{***} (0.0446)	0.113^{***} (0.0396)	0.316^{***} (0.0490)	0.116^{***} (0.0391)	0.289^{***} (0.0594)
Infrastructure (log)	0.271^{***} (0.0772)	0.252^{***} (0.0522)	0.238^{***} (0.0771)	0.248^{***} (0.0639)	0.214^{***} (0.0767)	0.232^{***} (0.0654)
Domestic credit/GDP	0.00317^{**} (0.00144)	0.0127^{***} (0.00206)	0.00346^{**} (0.00143)	0.00792^{***} (0.00210)	0.00330^{*} (0.00142)	0.00681^{***} (0.00213)
Exchange rate	$5.94e-05$ (4.32e−05)	$4.46e-05^{**}$ (2.05e−05)	$6.21e-05$ (4.31e−05)	$5.27e-05^{**}$ (2.62e−05)	$5.93e-05$ (4.28e−05)	$-2.70e-05$ (3.62e−05)
Oil exports share	-0.00150 (0.00184)	0.0258^{***} (0.00287)	-0.00030 (0.00191)	0.0233^{***} (0.00280)	0.000241 (0.00187)	0.0242^{***} (0.00302)
Labor growth	0.0166 (0.0108)	0.173^{***} (0.0310)	0.0262^{**} (0.0115)	0.180^{***} (0.0344)	0.0390^{***} (0.0119)	0.184^{***} (0.0367)
FDI policy reforms index	0.0264 (0.172)	0.943^{***} (0.261)	-0.104 (0.154)	0.309 (0.287)	0.0370 (0.158)	0.428 (0.319)
Conflict for regime change	-0.0579 (0.0399)	0.0282 (0.116)	-0.0402 (0.0399)	0.00902 (0.170)	-0.0125 (0.0402)	0.0187 (0.166)
Polity IV Democracy Index	0.890^{***} (0.253)	0.162^{***} (0.0215)				
Political Constraints Index III			1.017^{***} (0.271)	5.481^{***} (0.763)		
Political Constraints Index V					1.613^{***} (0.305)	3.631^{***} (0.524)

Adjusted R-squared	0.479		0.309		0.246	
First stage F Statistic	78***		81.37***		90.94***	
Anderson canon correlation LR test	205.5***		135.58****		169.96***	
Cragg-Donald statistic	229.75***		146***		186.64***	
Hansen J statistic (p value)	0.5936		0.3644		0.1542	
Pagan-Hall general statistic (p value)	0.8063		0.1619		0.0147	
Wu-Hausman F test	11.42***		47.43***		81.92***	
Durbin-Wu-Hausman χ^2 test	11.57***		46.21***		77.00***	
LR test vs. linear regression		2092.3***		2067.8***		2074.4***
Log restricted-likelihood		−796.2		−795.3		−788.4
No. of countries	95	95	95	95	95	95
No. of observations	938	990	927	990	922	990

Notes: Robust standard errors in parentheses ***$p<.01$, **$p<.05$, *$p<.1$;

MLE-IV = multilevel mixed linear estimations with instrumental variable method;

Log TA = total assets in US$ million (logged).

TABLE 4 Political Risk and U.S. Foreign Affiliates' Return on Investments

Variables	(1) log income MLE-IV	(2) log income 2SLS-IV	(3) log income MLE-IV	(4) log income 2SLS-IV	(5) log income MLE-IV	(6) log income 2SLS-IV
Constant	-4.188*** (1.452)	-4.749*** (0.893)	-4.257*** (1.461)	-5.223*** (1.048)	-4.538*** (1.454)	-5.052*** (1.047)
Per capita GDP (log)	0.698*** (0.144)	0.465*** (0.0708)	0.698*** (0.142)	0.407*** (0.0782)	0.682*** (0.143)	0.390*** (0.0789)
Per capita GDP growth rate	0.0180*** (0.00603)	0.0338*** (0.00838)	0.0204*** (0.00621)	0.0383*** (0.00915)	0.0185*** (0.00602)	0.0343*** (0.00907)
Population (log)	0.176** (0.0750)	0.226*** (0.0519)	0.171** (0.0746)	0.275*** (0.0553)	0.170** (0.0741)	0.260*** (0.0613)
Infrastructure (log)	0.253*** (0.0929)	0.232*** (0.0594)	0.244*** (0.0937)	0.245*** (0.0707)	0.191** (0.0962)	0.230*** (0.0721)
Domestic credit/GDP	-0.0051* (0.00305)	0.0111*** (0.00227)	-0.00450 (0.00303)	0.00731*** (0.00219)	-0.00481 (0.00302)	0.00643*** (0.00225)
Exchange rate	5.22e-05 (7.52e-05)	2.45e-05 (3.13e-05)	5.05e-05 (7.44e-05)	3.01e-05 (3.55e-05)	5.57e-05 (7.47e-05)	-2.58e-05 (4.10e-05)
Oil exports share	0.00464 (0.00373)	0.0213*** (0.00335)	0.00524 (0.00387)	0.0196*** (0.00297)	0.00686* (0.00385)	0.0203*** (0.00311)
Labor growth	0.0200 (0.0242)	0.177*** (0.0336)	0.0260 (0.0258)	0.183*** (0.0353)	0.0444* (0.0264)	0.186*** (0.0364)
FDI policy reforms index	0.445 (0.351)	1.124*** (0.296)	0.261 (0.325)	0.482 (0.304)	0.432 (0.328)	0.592* (0.327)
Conflict for regime change	0.0447 (0.0921)	0.0658 (0.105)	0.0676 (0.0923)	0.0689 (0.123)	0.0994 (0.0927)	0.0799 (0.128)
Polity IV Democracy Index	1.142** (0.500)	0.109*** (0.0257)				
Political Constraints Index III			1.017* (0.561)	3.791*** (0.889)		
Political Constraints Index V					1.845*** (0.593)	2.604*** (0.608)

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Adjusted R-squared	0.374		0.301		0.271	
First stage F Statistic	78.37***		75.04***		78.83***	
Anderson canon correlation LR test	199.94***		123.78***		147.84***	
Cragg-Donald statistic	222.19***		132.17***		160***	
Hansen J statistic (p value)	0.9181		0.461		0.3147	
Pagan-Hall general statistic (p value)	0.9629		0.4714		0.4196	
Wu-Hausman F test	4.39**		19.85***		33.22***	
Durbin-Wu-Hausman χ^2 test	4.48**		19.92***		32.86***	
LR test vs. linear regression		970.8***		977.9***		975.4***
Log restricted-likelihood		−1571.1		−1570.3		−1567.9
No. of countries	95	95	95	95	95	95
No. of observations	964	1013	953	1013	948	1013

Notes: Robust standard errors in parentheses ***$p<.01$, **$p<.05$, *$p<.1$;
MLE-IV = multilevel mixed linear estimations with instrumental variable method.

competition) is not of the utmost importance, but rather how power is used (that is, checks and balances in the system). In countries with huge resource rents, checks and balances become even more important as most of the FDI projects are capital intensive in nature with a large amount of investment locked in fixed assets. For example, the instant democracies (like African countries in the 1990s) are largely associated with instant electoral competition; however, it is not possible to instantly build checks and balances in the system, which puts constraints on the executive. Henisz (2002) calls this "contractual hazards." Notice that these results show a robustly positive association across the columns, signifying the importance of political constraints on foreign affiliates' operations, net of all the control variables.

My results also indicate no contradiction between different operations of U.S. firms in the host countries. Table 2 shows that a point increase in the polity IV index raises U.S. firms' investments in fixed assets (logged) by roughly 0.52%. These positive effects are reconfirmed by the two-stage least squares method in column 2. A standard deviation increase in the polity IV index would increase firms' investments in fixed assets by roughly 1.36%, which is 66% of the standard deviation of polity IV index (see column 2, Table 2). Further columns show that both forms of political constraints indices are significantly different from zero at the 1% level, irrespective of the estimation technique. In both cases, the substantial positive impact is much higher than polity IV index. In Table 3, I replace the dependent variable with total assets (logged). As seen here (column 1 and 2), polity IV correlates positively with an increase in total assets and is statistically highly significant in both models. On the other hand, an increase in the political constraint indices would raise the value of total asset investments by 1.02% and 1.6% respectively (see column 3 and 5, Table 3). These positive effects of political constraints indices are once again reconfirmed by the two-stage least squares method (see column 4 and 6). Finally, all three political risk indicators are found to be positive and significantly different from zero at the 1% level in relation to the income earned by the U.S. firms in the host countries (see Table 4). Given that these results are net of the indirect effects through other key determinants of firms' operations, the total impact of political risk is not negligible.

All tables list additional statistics that confirm the strength of the instruments for the models estimated using the 2SLS-IV method. Regarding the endogeneity tests, the joint F-statistic here allows us to reject the null hypothesis that the instruments selected for all the models in Tables 1–4 can be treated as exogenous. The F-statistic from the first stage for all the models rejects the null that the instruments selected are not relevant. The results for the Cragg-Donald and Anderson canon likelihood ratio (LR) statistics overwhelmingly reject the null of weak instruments at the 1% level. Finally, the Hansen J-Statistic shows that the null-hypothesis of exogeneity cannot be

rejected at the conventional level of significance.[9] I also ran the reduced form regression of the selected instruments and respective dependent variables for all the models, and the estimates of the selected instruments remained statistically insignificant.[10] With these additional tests, I have avoided the weak instrument problem, and the results are robust. In all the models, the results of the Durbin Wu-Hausman test to examine the claims of endogeneity, suggested by Durbin (1954), Wu (1974), and Hausman (1978), reject the null indicating that the instrumental variables technique is required. I also employ Pagan and Hall's (1983) test of heteroskedasticity and find no support for the presence of heteroskedasticity.

With respect to the controls, it is interesting to note that in all models with different dependent variables, there is a consistency with the theoretical expectations. There is a positive relationship between economic development (per capita GDP) and firms' operations. Although the results on the rate of growth of income are positive, they are largely insignificant. Like others, I find that countries with large market size (population) are associated with an increase in firms' operations (Agarwal and Ramaswami 1992, Gatignon and Anderson 1988). I also find that the level of infrastructure and availability of domestic credit are positive and significantly different from zero at the 1% level. While the results of infrastructure remained robust across the board, I could not find a significant effect of domestic credit in Table 2. The results related to exchange rates remain largely insignificant. On the other hand, I find that resource rich states attract U.S. firms, which is not reconfirmed by the multilevel mixed liner models. The rate of growth in labor availability has positive effects on firms' operations. Last, as expected I find that FDI reforms play a positive role in increasing the operations of U.S. firms.

Further Checks on Robustness

I examine the robustness of my main findings in the following ways. First, I replaced the main political risk indicators with the polity IV executive constraints index as well as the checks and balances measure from the Database of Political Institutions. The results pertaining to these variables are provided upon request. In all the models, both these variables are found to be positive and significantly different from zero at the 1% level. However, the significant results regarding the executive constraints index are not reconfirmed by the multilevel mixed linear-IV method. Second, I replaced the polity IV measure of democracy index with Freedom House's index. I take

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[9]Alternatively, I also test the exogeneity of the instruments using a Basmann test. I find the results to be similar to that of the Hansen J-statistic.
[10]Results are not shown due to brevity but can be provided upon request.

the average of the civil liberty and political freedom indices, coded on a scale of 0–7, with higher values representing worse liberties. Despite some change in this variable, I do not find any change in our results. Third, I also ran all the results by replacing my existing instruments with two new instruments, namely number of years since independence and number of years since the constitution has been formed. Both these variables were used because countries with a long history of autonomous rule are more likely to be associated with democratic institutions (Persson 2005). Prominent studies in the literature, such as, Acemoglu, Johnson, Robinson, and Yaned (2004), Mobarak (2005), Persson, Tabellini, and Trebbi (2001), Vreeland (2003), Eichengreen and Leblang (2008), have used either one or both of these variables as a determinant of democracy. Our results remain robust to the use of alternative instruments. In summary, the results obtained seem robust to alternative instruments, specifications, and testing procedures and are reconfirmed by the 2SLS-IV method.

CONCLUSION

The founding father and current President of Zimbabwe, Robert Mugabe, is fond of saying "Zimbabwe for Zimbabweans" when introducing new Indigenous Acts, a sentiment echoed by many poor Zimbabweans who have seen MNCs exploit their resources to make profits. This Act severely restricts the presence and operations of foreign firms in Zimbabwe. The recent changes in business law by the Zimbabwean President have once again brought "political risk" into the spotlight, namely the issue of direct expropriation of foreign assets. When assessing the impact of political risk on FDI, the copious amount of previous research presents a systematically argued empirical analysis illustrating that political risk reduces FDI inflows. However, this conclusion seems to be somewhat premature. I argue that most of the past findings use macrolevel FDI data to test micro-level theories, which is inadequate. In this article, I examine various risk hedging strategies which MNCs may employ when operating in a high risk environment. Moreover, reverse-causality is one of the most serious issues in estimating the effects of political risk on FDI, which the studies dealing with firm level analysis have failed to address.

   To reassess the propositions, I make use of aggregate data on U.S. firms' investment activities in 101 developing countries during the period 1997–2007. Using both multilevel mixed-effects linear regression—IV and 2SLS—IV (with time effects) methods, I find that lower political risk is associated with an increase in U.S. firms with an equity stake of 51% or above, followed by a higher proportion of investment in fixed assets and also an increase in their return on investments, controlling for a host of relevant factors. These results bring the multiple risk hedging strategies available for foreign firms

operating in high risk environments to the fore. Our results reaffirm that instead of avoiding the lucrative markets, foreign investors can strategize by restricting the size of their operations in countries with relatively high political risk, thus minimizing obsolescence risk on their assets.

Taken together, these results provide scope for further research on this topic. First, the focus of this study was on aggregate firm level data. Future research might use disaggregated firm level data to check whether or not political risk is an issue for MNCs in different sectors like manufacturing, services, and resource extraction. And if so, how differently do these effects vary across sectors. Given the nature of operations, services sectors? tend to invest less in fixed assets compared to manufacturing and extractive sectors. Therefore, one might expect the effects to vary across the board.[11] Secondly, given the resurgence of leftists governments in some parts of the world where U.S. firms have significant presence, future research could also focus on how foreign investors strategize in the face of a change of government (within a democratic system) with a different ideology, particularly those with extreme leftist tendencies.

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[11]For example, much of the Indian Information and Technology (IT) and allied industry's balance sheets show negligible investments in fixed assets to liquid assets.

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APPENDIX 1: COUNTRIES UNDER STUDY

Algeria	El Saluador	Morocco	Turkey
Angola	Equatorial Guinea	Nicaragua	Uganda
Argentina	Estonia	Nigeria	United Arab Emirates
Antigua and Barbuda	Ethiopia	Oman	Uzbekistan
Azerbaijan	Gabon	Pakistan	Venezuela
Bahamas	Ghana	Panama	Ukraine
Bahrain	Guatemala	Papua New Guinea	Uruguay
Bangladesh	Guyana	Paraguay	Vietnam
Barbados	Haiti	Peru	Yemen
Belize	Honduras	Philippines	Zambia
Bolivia	Hungary	Poland	Zimbabwe
Botswana	India	Qatar	
Brazil	Indonesia	Romania	
Brunei	Israel	Russian Federation	
Bulgaria	Italy	Saudi Arabia	
Cameroon	Jamaica	Senegal	
Chad	Jordan	Singapore	
Chile	Kenya	Slovakia	
China	Kazakastan	Slovania	
Colombia	Korea Republic	South Africa	
Congo, Democratic Republic	Kuwait	St. Lucia	
Congo Republic	Latvia	Sri Lanka	
Costa Rica	Lithuania	Suriname	
Cote d'Ivoire	Lebanon	Swaziland	
Croatia	Liberia	Taiwan	
Czech Republic	Libya	Tanzania	
Dominica	Malaysia	Thailand	
Dominican Republic	Malawi	Togo	
Ecuador	Mauritius	Trinidad and Tobago	
Egypt	Mexico	Tunisia	

APPENDIX 2: DATA SOURCES

Indicators	Data sources
Polity IV indices	Polity IV, (http://www.colorado.edu/IBS/GAD/spacetime/data/Polity.html)
Political constraints indices	Henisz (2002)
Checks and Balances	Beck et al. (2001), Keefer and Stasavage (2003)
log Population	World Development Indicators–2007, http://ddp-ext.worldbank.org/WDI
log Per capita GDP	World Development Indicators—2007, http://ddp-ext.worldbank.org/WDI
Per capita GDP growth	World Development Indicators—2007, http://ddp-ext.worldbank.org/WDI
log Infrastructure	World Development Indicators—2007, http://ddp-ext.worldbank.org/WDI
Oil exports share	Own construction from WTO trade statistics, 2010
Domestic credit/GDP	World Development Indicators—2007, http://ddp-ext.worldbank.org/WDI
FDI reforms index	Annual Report on Exchange Arrangements and Exchange Restrictions, IMF
Labor growth	World Development Indicators—2007, http://ddp-ext.worldbank.org/WDI
Conflicts	UCDP dataset (Gleditsch et al., 2002)

APPENDIX 3: DESCRIPTIVE STATISTICS

Variables	Mean	Minimum	Maximum	Standard Deviation	Observations
log U.S.-owned firms	2.976	0.000	6.790	1.594	900
log Assets	7.411	2.079	12.406	2.055	1023
log Income	4.469	0.000	10.216	2.257	1044
log Fixed assets	6.067	1.099	10.485	2.093	1032
Polity IV democracy index	2.856	−10.00	10.000	6.464	1023
Political Constraints III	0.280	0.000	0.726	0.217	1012
Political Constraints V	0.432	0.000	0.895	0.309	1007
Checks and balances	2.946	0.000	18.000	1.826	1078
Executive Constraints index	4.673	1.000	7.000	2.079	1023
log Population	9.301	4.210	16.709	2.225	1100
log Per capita GDP	7.634	4.556	11.282	1.364	1100
Per capita GDP growth	2.985	−31.18	89.790	5.866	1100
log Infrastructure	2.153	−3.985	7.836	2.105	1100
Oil exports share	28.388	0.000	108.997	31.372	1100
Domestic credit/GDP	38.236	0.683	210.418	31.330	1100
FDI reforms index	0.555	0.000	0.944	0.291	1100
Labor growth	2.185	−13.38	11.928	1.865	1100
Conflicts	0.069	0.000	4.000	0.483	1100