

Reexamining the Effect of Democratic Institutions on Inflows of Foreign Direct Investment in Developing Countries

SEUNG-WHAN CHOI

University of Illinois at Chicago

YIAGADEESEN SAMY

Carleton University

The effect of regime type on inflows of foreign direct investment (FDI) remains a matter of controversy. While some studies report a positive influence of democracy on FDI, others show a negative influence. This study reexamines this discrepancy using pooled panel data during the past 20 years and contributes to the existing literature in three ways. First, it refines the causal mechanisms underlying the democracy-related arguments of veto players, audience costs, and democratic hindrance with respect to foreign investment. Second, it introduces three accurate measures to capture each of those three causal arguments. Third, it briefly demonstrates how different measurements of the dependent variable can produce statistically spurious results. The empirical results reveal that democratic institutions are, at best, weakly associated with increases in FDI inflows (measured by FDI/GDP ratios). While multiple veto players (and, counterintuitively, democratic hindrance) may be positively associated with increases in FDI, audience costs are not linked to FDI activities. These findings have important policy implications given that developing democratic countries are trying to attract more FDI in order to achieve their economic growth and development targets.

“Rather than comparing [war] to art we could more accurately compare it to commerce, which is also a conflict of human interests and activities; and it is *still* closer to politics, which in turn may be considered as a kind of commerce on a larger scale.”—Clausewitz (1832/1976:149)

Rapid increases in international economic transactions have opened national governments to the world economy during the past few decades. One of the driving forces behind the ever-integrating world market can be traced back to recent dramatic surges in foreign direct investment (FDI) by multinational enterprises (MNEs) (Milner and Keohane 1996). However, despite the fact that increased foreign investment has benefited each nation’s economic health on the whole, MNEs

Author’s note: We thank John W. Ahlquist, David Baur, Witold J. Henisz, Nathan Jensen, Soo Yeon Kim, Quan Li, Shali Luo, and John Quinn for their stimulating work and suggestions at the various stages of this project.

do not invest in all countries equally and even move their assets around, crossing borders in search of better business opportunities. Accordingly, attracting more foreign investment turns into one of the most important economic strategies for developing country governments in their pursuit of desirable economic development, especially as other financial resources such as foreign aid and short-term capital flows are often too risky and volatile. For that reason, much research, mainly by economists, has been devoted to exploring the effects of economic globalization on macroeconomic policy options or national competitiveness.

Not long ago, students of international political economy began examining the political implications of FDI. One of the most interesting dimensions of this topic is whether democratic regimes are capable of drawing more FDI than authoritarian ones. The growing interest in this line of thinking is significantly related to the high profile democratic peace debates and their policy implications (e.g., Russett and Oneal 2001; Choi and James 2005). If MNEs prefer investing more resources in democracies to nondemocracies, and their investment leads to a positive sum of economic growth, national leaders should have an incentive to adopt and hold onto a democratic political system for better national well-being. In the language of Clausewitz (1832/1976), fighting over more foreign investment, like war, becomes “a continuation of politics by other means” among developing country governments. In this sense, the way democratic leaders conduct their foreign policy regarding FDI may determine the fate of future national wealth and their political survival in the midst of economic war.

Unfortunately, existing literature has produced seemingly contradictory theoretical arguments and reported inconclusive empirical findings on the relationship between democratic institutions and FDI inflows. Some studies find that MNEs are more likely to invest in democratic countries (e.g., Jensen 2003, 2006; Jensen and McGillivray 2005; Ahlquist 2006), while others report that authoritarian regimes experience a large amount of FDI inflows (e.g., Li and Resnick 2003). Given the inconsistent theoretical arguments and mixed findings, academics and policy-makers alike are uncertain about what kinds of policy they should propose to national leaders. In this study, we attempt to resolve the confusion by reexamining two existing studies presented by Jensen (2003) and Li and Resnick (2003). We deconstruct Jensen and Li and Resnick’s causal mechanisms underlying the democracy-related arguments of veto players, audience costs, and democratic hindrance with respect to foreign investment and then introduce three accurate measures to capture each of those three causal arguments. The empirical results reveal that democratic institutions are, at best, weakly associated with increases in FDI inflows. While multiple veto players (and, counterintuitively, democratic hindrance) may be positively associated with increases in FDI, audience costs are not linked to FDI activities. The findings reported below have important policy implications for developing country governments as they consider the liberalization of domestic markets to increase national wealth.

In the next section, we review some existing studies on determinants of FDI and elaborate on the three theoretical underpinnings put forward by Jensen and Li and Resnick (i.e., veto players, audience costs, and democratic hindrance). We then present a research design for empirical analysis and discuss the implications of our findings in resolving the contrasting effect of democratic institutions on FDI inflows. We conclude with some policy implications from our analysis and suggestions for future research.

A Brief Review of Existing Studies on Determinants of FDI

The fact that domestic firms are willing to extend their economic activities across borders is not a trivial matter since there are several potential risks in doing so

(i.e., language and cultural differences, transportation costs being too high, different legal and regulatory structures, imperfect information about markets and local conditions, and risks of expropriation). As a profit maximizing entity, a firm will likely engage in FDI as long as the benefits of doing so exceed the costs (risks). According to Dunning's (1977) eclectic paradigm, the benefits associated with investment are related to ownership, location, and internalization (OLI). Built on the OLI framework, trade economists have developed theoretical models that place MNEs in a general equilibrium position to account for their decision to invest overseas. This gave rise to the horizontal model by Markusen (1984), the vertical model by Helpman (1984), and then Markusen's (1997) hybrid of the two known as the knowledge-capital model. Not surprisingly, most of these theoretical models, and the empirical tests thereof, have focused on the economic determinants of FDI.

That said, there are some studies that investigate the effect of different political systems on economic growth. For example, Clague, Keefer, Knack, and Olson (1994) argue that autocratic regimes are more likely to save and invest because they can resist special interest groups, while democratic regimes are more likely to spend because of popular pressures. However, North (1990) views authoritarian systems as harmful to economic performance because of their higher propensity to prey on society but democratic institutions as beneficial because they can protect public interests from predatory states. The conventional wisdom has long been that MNEs prefer to invest in authoritarian countries where they can receive better entry deals which are not subject to pressures from civil society or demands from trade unions to increase wages. In this sense, MNEs' business activities are less constrained in nondemocratic settings than democratic ones, and MNEs are therefore less likely to face unanticipated demands for a better work environment. However, using data on FDI flows from the United States to developing countries, Oneal (1994) reports that there is no statistically significant relationship between regime type and FDI flows despite the fact that investment returns are greater under authoritarian regimes than democratic regimes.

In two recent and sophisticated empirical studies, Jensen (2003) and Li and Resnick (2003) report contradictory conclusions about the effect of democracy on FDI. Jensen (2003:504–595) argues that democratic systems are more credible and less risky because of institutional stability created by veto players and audience costs, thereby attracting a large amount of foreign investment. Jensen uses both cross-sectional and panel data (for more than 100 countries from 1970 to 1997) to examine the effect of democratic governance on FDI inflows and reports that “democratic institutions have a large positive effect on FDI inflows” (p. 612). By contrast, Li and Resnick (2003:182–185) claim that democratic institutions that prevent domestic markets from MNEs' oligopolistic or monopolistic behaviors unwelcome foreign investment. Using panel data on 53 developing countries from 1982 to 1995, Li and Resnick (2003:194) report that “the level of democracy reduces FDI inflows.”

In this study, we focus on Jensen and Li and Resnick's two studies because they have produced more questions than answers with respect to the relationship between regime type and foreign investment. As far as we are aware, there has been no attempt by researchers to examine this puzzle, namely the differing effects of democracy on the inflow of FDI. Our investigation below begins with a reexamination and refinement of their line of theoretical reasoning.

Three Theoretical Arguments: Veto Players, Audience Costs, and Democratic Hindrance

The theoretical reasoning put forward by Jensen (2003) and Li and Resnick (2003) relies on a synthetic overview from various democracy-related studies

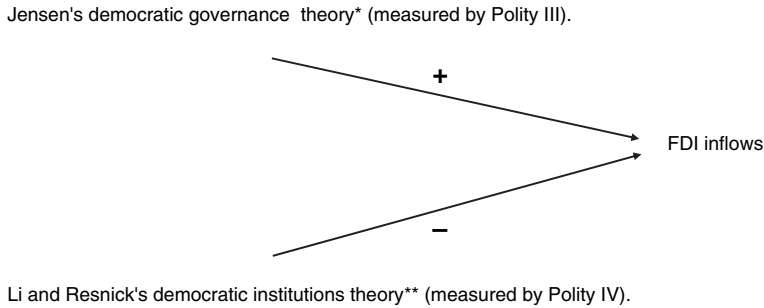


FIG. 1. Jensen's Democratic Governance Theory, Li and Resnick's Democratic Institutions Theory, and Their Measurements.

Note: * Jensen stresses two kinds of democratic constraints: veto players and audience costs.

** Li and Resnick emphasize three kinds of democratic restrictions: limiting the oligopolistic or monopolistic behaviors of multinational corporations, facilitating indigenous businesses to pursue protection against international investment, and constraining the host government's ability to offer generous financial and fiscal incentives to international investors.

rather than being anchored to a single, coherent democracy theory. In other words, although Jensen and Li and Resnick's studies have significantly advanced the literature on FDI by exploring the general implications of democratic institutions, this approach is not immune from criticism because it fails to emphasize what specific attributes of democracy really matter in explaining the behavior of MNEs. More importantly, we argue below that their summarized theoretical explanations are linked to an inaccurate measure, which renders the empirical results spurious (see King, Keohane, and Verba 1994; Adcock and Collier 2001).

To visualize, Figure 1 displays the two seemingly paradoxical FDI theories and democracy measures from Jensen and Li and Resnick's studies. Jensen synthesizes two theoretical arguments based on veto players and audience costs and predicts that the democratic constraints imposed on political leaders via multiple veto players and audience costs produce policy credibility for MNEs, leading to increases of FDI inflows. When it comes to empirical tests, Jensen relies on the Polity dataset to measure his theoretical claims.¹ As noted, Jensen's results show a positive relationship between democracy and FDI. Li and Resnick suggest three negative influences of democratic institutions on FDI. Democratic institutions hinder many MNEs' ability to exploit and enhance their monopolistic or oligopolistic positions, facilitate local businesses to pursue protection against foreign capital, and constrain the host government's ability to offer generous fiscal and financial incentives to foreign investors. Li and Resnick report a negative relationship between democracy and FDI, confirming their theoretical expectations.² Despite the fact that the theoretical reasoning of Li and Resnick is not the same as Jensen's, their empirical tests are conducted against the same data source, Polity. This raises a serious problem of research design because what Jensen and Li and Resnick theorize is not necessarily captured by their democracy variable, which is operationalized from the same Polity data.

¹ On Polity, see Gurr, Jagers, and Moore (1989, 1991).

² It is noteworthy that after adding another causal explanation that democracies should protect property rights better than autocracies (i.e., a positive influence of property rights in democratic societies), Li and Resnick (2003:186–187, 195) include the property rights protection variable in competition with the democracy (Polity) variable in the same model. Since property rights protection is not directly related to the empirical puzzle caused by measurement error, we do not discuss its implications in this study.

Specifically, this issue leads to measurement error due to a gap between their theory and empirical analysis. Polity is certainly one of the most widely used indicators in studies of international political economy but measures the authority characteristics of modern polities only in the context of five narrowly defined democratic characteristics (i.e., competitiveness of participation, regulation of participation, competitiveness of executive recruitment, openness of executive recruitment, and constraints on the executive). Unfortunately, Polity lacks the key democratic elements that Li and Resnick and Jensen intend to capture for their synthesized theoretical claims.³ It detects neither the *credibility* of democratic governance structures in the context of veto players and audience costs (Jensen) nor democracies' *policy hindrance* regarding multinationals' oligopolistic or monopolistic behaviors (Li and Resnick).

We elaborate on each of the three theoretical explanations for the democracy-FDI linkage presented by Jensen and Li and Resnick in this section and then conduct empirical tests with three precise indicators measuring the key concepts of veto players, audience costs, and democratic hindrance in the next section. Referring to the two prominent studies by Tsebelis (1995) and Henisz (2000b), Jensen presents a theory of veto players to conceptualize his democratic governance argument on FDI inflows. Jensen (2003:594–595) maintains that multiple veto players in democratic countries create institutional constraints which produce a credible and consistent foreign investment environment for multinational corporations.

By arguing for the benign influence of multiple veto players, Jensen discusses only one of the three essential features of the Tsebelis (1995, 1999, 2002) veto players theory. For Tsebelis, the difficulty for policy change grows (i) as the number of veto players increases, (ii) as their preferences or ideological distance diverge, and (iii) as their internal coherence weakens. Tsebelis' (1999) empirical study confirms that the increasing number of veto players and their diverging ideologies in 15 West European countries for the period 1981–1991 exert political constraints on leaders, resulting in low levels of law production. Henisz (2004) shows that increasing veto power reduces the volatility of nine different types of fiscal policy for 172 countries during the period from 1971 to 1998.

Consequently, we argue that in order for veto players to make the possibility of policy reversal more difficult, their preferences should be at least (i) different from the executive's preferences and (ii) more "hawkish" in preventing change from the existing policy. Multiple veto players who happen to have diverging policy preferences help assure the credible commitment of democratic leaders not to make sudden or arbitrary investment policy changes against MNEs. Thus, it can be hypothesized that checks and balances created by veto players that limit the discretion of democratic leaders attenuate the volatility of foreign investment policy, thus inducing a large sum of FDI inflows.

Jensen also argues that if democratic leaders breach their deals with foreign investors, they may suffer from audience (i.e., electoral) costs. In addition, Jensen (2003:595) claims that democratic credibility is "more strongly supported [by a theory of audience costs] than the veto player argument." However, Jensen does not design a measure for audience costs but instead turns to the usual democracy scores collected from Polity. Although the theory of audience costs is elegant and sound, empirical studies have not yet flourished due to the lack of a direct and convincing indicator (see Eyerman and Hart 1996; Schultz 1999; and Prins 2003). In a recent study, Choi and James (2007) present a theoretically cogent argument that media openness functions as an intervening variable between democratic leaders and electoral constituents and is therefore a key

³ For more criticisms against Polity, see Gleditsch and Ward (1997); Munck and Verkuilen (2002); and Wolfson, Madjd-Sadjadi, and James (2004).

component of audience costs. Choi and James report that audience costs via open media have a strong pacifying impact on interstate disputes regardless of different sample sizes and statistical models. We extend Choi and James' study to the FDI studies by way of the idea that the lack of open media prohibits audience costs from playing a critical role with respect to the leadership's concerns about political penalties associated with their contract breaches with MNEs.

Our argument is that in developing countries many MNEs often have more indigenous employees than do domestic firms; they provide better employment benefits; and they contribute to economic development to a large extent. In the active presence of open media, the concerned MNE employees and citizens are likely to raise a loud voice against democratic leaders who do not follow through or violate existing foreign investment policies. In case of disinvestment of foreign capital caused by policy reversal, leaders are more likely to suffer from electoral punishment. Ironically, even Li and Resnick (2003: 182) mention that "open media bring about relatively better monitoring of elected politicians." In contrast, state-controlled media can be easily misled by autocrats who want to misinform the public about economic costs caused by mishandling foreign investors, so no audience costs are expected to arise. In this sense, it can be hypothesized that media openness plays an important role for electoral punishment, capturing the essence of the audience costs theory, thus contributing to an increase of FDI inflows.

Contrary to Jensen's argument about the constructive influence of democracy, Li and Resnick (2003:182) "suggest three mechanisms through which [democratic] institutions hinder FDI inflows," linking increased democracy to a decrease of FDI inflows. Li and Resnick argue that democratic characteristics of the host country collectively restrain the pursuit of oligopoly or monopoly by many MNEs and limit the generosity of investment incentives to foreign investors such as tax holidays, exemptions from import duties, and donations of land or site facilities. In addition, domestic interests that lose out to foreign firms are more likely to ask elected officials for economic protection. As noted, Li and Resnick's variable (i.e., the level of democracy measured by Polity) fails to capture the essence of their theoretical explanations. To the best of our knowledge, there is no readily available measure that reflects Li and Resnick's three points that democratic institutions hinder multinational firms' investment. As Li and Resnick claim that democratically elected officials implement investment policies against MNEs' possible misbehavior, democracies should be less attractive to foreign investors than autocracies. If Li and Resnick's underlying reasoning is correct, it is reasonable to argue that the level of FDI inflows is determined by how MNEs perceive the foreign investment environment in democracies. Consequently, because foreign investors consider democratic leaders as untrustworthy partners whose intention is to block MNEs' business opportunities, they should give democracies a low-credit evaluation and be reluctant to invest in democracies. In this sense, it can be hypothesized that foreign investors should not favor democratic countries that produce detrimental policy signals and have a bad credit history with them, leading to a decrease of FDI inflows.

Empirical Testing for the Effect of Democratic Institutions on FDI Inflows

To explore the effect of democratic institutions on FDI in line with veto players, audience costs, and democratic hindrance, this section presents two sets of empirical tests. The first set includes ordinary least squares (OLS), fixed-effects, and random-effects, three commonly used statistical techniques in the area of international political economy. The second set introduces the within error correction model (ECM), which is a more sophisticated technique to deal with pooled panel datasets and especially its dynamic elements.

Research Design for OLS, Fixed-Effects, and Random-Effects

Although we reexamine the two studies by Jensen (2003) and Li and Resnick (2003), we do not replicate their research design here because of the concern that since each of their studies relies on different model specifications and sample sizes, comparing the replicated results would become fruitless.⁴ For this reason, it is necessary to introduce a ‘neutral’ frame of reference for this study. We utilize the recent study by Ahlquist (2006) to see the effect of democratic institutions in comparison with the two contrasting findings reported by Jensen and Li and Resnick.⁵ Ahlquist hypothesizes that FDI inflows should increase with more consolidated democratic institutions. Using a cross-sectional, time-series dataset covering up to 90 developing countries during the past 20 years, Ahlquist finds that more democratic regimes receive more FDI. Ahlquist’s research design is largely similar to Jensen’s. Like Jensen, Ahlquist uses the World Bank’s (2005) net FDI inflows as a percentage of GDP and Polity IV scores to test the causal relationship between FDI and democracy. Some notable advantages of Ahlquist’s research design over that of Jensen (and Li and Resnick) are that it covers more recent FDI activities and employs more advanced statistical techniques in the pooled panel data analysis by combining the sequential estimation of between-country and within-country models with the flexible error correction specification (see also Zorn 2001; De Boef and Keele 2005; Goodrich 2005).

Based on Ahlquist’s study, we build a standard regression model that is similar to those of Jensen and Li and Resnick as follows:

$$\begin{aligned} \text{FDI Inflows}_t = & \alpha + \beta_1 (\text{Veto Players}_{t-1} \text{ or Audience Costs}_{t-1}) \\ & + \beta_2 (\text{Democratic Hindrance}_{t-1}) \\ & + \beta_{3\text{tok}} (\text{Economic Variables}_{t-1}) + \varepsilon \end{aligned} \quad (1)$$

It should be noted that Equation 1, except for dropping the flexible error correction specification, is similar to the model building of Ahlquist’s original within ECM reported in Table 3 on page 699.⁶ The Polity (democracy) variable in Ahlquist’s original within ECM is replaced with either veto players or audience costs, and democratic hindrance is added as well. Ahlquist’s Polity (democracy) persistence variable that captures institutional stability and is measured as the number of years since the last change in Polity score is excluded because the studies by Jensen and Li and Resnick do not consider the variable.⁷ Like Jensen’s and Li and Resnick’s models, all independent variables are lagged by 1 year in order to reduce the likelihood of reverse causality.⁸ Once again, the rationale is to build an empirical model that closely resembles those of Jensen and Li and Resnick while escaping from the criticism that different model specifications and

⁴ For the replicated results, see Choi and Samy (2005) where it is reported that the contradictory empirical findings reported by Jensen and Li and Resnick result from how the dependent variable is measured. Choi and Samy demonstrate that when the dependent variable (FDI/GDP ratios) used in Jensen’s regression models is replaced with Li and Resnick’s dependent variable (FDI in dollar amounts) or vice versa, the sign of the coefficient of the democracy variable changes from positive to negative or vice versa. Choi and Samy conclude that because the use of FDI in dollar amounts itself does not account for different economic sizes, Li and Resnick’s results are statistical artifacts.

⁵ Because Ahlquist’s research design already went through a rigorous review process in *International Studies Quarterly*, possible coding errors or faulty model building on our part should be reduced.

⁶ Ahlquist’s between model is not used because the democracy variable is not statistically significant; so its results cannot be compared with those of Jensen and Li and Resnick.

⁷ The exclusion of the Polity (democracy) persistence variable does not change the significance of the main findings reported below.

⁸ One exception is the variable, default, that is used with two more lagged terms, which follows Ahlquist’s practice. Ahlquist cites Reinhart and Rogoff’s (2004) study that reports the influence of past defaults.

sample sizes are the culprits. We conduct empirical tests with three widely used statistical techniques in studies of international political economy. For the purposes of comparison and demonstration, our first statistical model employs OLS regressions with panel-corrected standard errors plus AR(1) correction, which is used by Jensen and Li and Resnick.

However, since the first method does not account for fixed-effects that can control for omitted variables that differ between countries but are constant over time, it may produce biased estimation. In their “Dirty Pool” article, Green, Kim, and Yoon (2001:442) argue that “analyses of pooled cross-section data that make no allowance for fixed unobserved differences between [countries] often produce biased results,” and report that, “democracy, which seems to be a leading predictor of peace in a pooled cross-sectional analysis, has no effect on militarized disputes when the data are examined [properly with fixed-effects regression].” Following Green, Kim, and Yoon’s methodological insights,⁹ we employ fixed-effects as the second statistical method.

It should be noted that, although Green, Kim, and Yoon (2001) data analysis is based on fixed-effects models, they explicitly suggest the use of random-effects regression for panel data in their conclusion (p. 464). While fixed-effects consider only the unique features of each country, random-effects regression takes into account the uniqueness of both country and time by controlling for omitted variables that differ between countries but are constant over time as well as for others that vary over time but are fixed between countries. Given the spatial and temporal dynamics of the pooled panel data being used (i.e., the omitted country and year dummies are correlated with the error term), we also introduce random-effects as the third statistical method.¹⁰

An explanation of four key variables of interest in Equation 1, FDI inflows, veto players, audience costs, and democratic hindrance is in order. Ahlquist’s FDI inflows are direct investments into a country from abroad and can be either positive or negative. Negative inflows mean disinvestment by MNEs. Ahlquist uses the World Bank’s (2005) net FDI inflows as a percentage of GDP, which is the same as Jensen’s choice of the dependent variable. It is our contention that the use of FDI/GDP ratios over that of FDI in dollar amounts as the dependent variable is more appropriate because it standardizes each country’s varying economic size. Jensen and McGillivray’s (2005:314) position that “[the FDI/GDP ratio] is the best available measure of a country’s success in attracting FDI inflows” is in line with ours. Accounting for the size of the economy is important if we investigate why regime type ‘really’ matters. Big economies tend to receive higher FDI because they provide more investment opportunities for foreign investors “in the first place,” not just because they have a certain type of political system. As Chan and Mason (1992:221) properly point out, “the larger Third World countries—Brazil, Mexico, Nigeria, Indonesia, and China—tend to become magnets for FDI.” If only a few super economies under a certain political regime type dominate the world FDI market, their economic size disguises the real effect of regime type. The choice of FDI/GDP versus FDI is like choosing between a real term and a nominal term for economic analysis. Since we are interested in the effect of democracy in a real sense, not in a nominal sense, the focal point is not just how much FDI a country attracts (i.e., total amount of FDI), but how much FDI a country attracts given its economic size (i.e., FDI/GDP). In a statistical sense, our choice of FDI/GDP makes more sense because the use of FDI/GDP ratios implies the rescaling of variables to have

⁹ For more detailed technical discussion on fixed-effects, see Baltagi (2001), Green, Kim, and Yoon (2001), and Stata Cross-Sectional Time-Series: Reference Manual, Release 8. Some criticisms against fixed-effects can be found in Oneal and Russett (2001).

¹⁰ The Hausman test, however, shows that the difference in coefficients is not systematic.

them fit within a narrower range and is a common procedure used in most econometric studies of FDI.¹¹

As noted earlier, Jensen's study fails to devise an appropriate measure for directly testing a theory of veto players but simply turns to Polity without proper justification. We rely on Henisz's (2000a) data collection to operationalize the key concepts of veto power politics in democracies.¹² The data include up to 234 countries for 1800–2001 that identifies executive, lower and upper legislative chambers that exercise veto power over policy change. Henisz's measure incorporates two critical components of Tsebelis' (1995) theory of veto players, namely, the number of veto players and the preference distance among them.¹³ Jensen's study also does not make an effort to design a measure that echoes the key arguments of audience costs. Following Choi and James' (2007) study, audience costs are operationalized with Van Belle's (1997, 2000:137–148) global press freedom data. Van Belle provides a five-category coding scheme for media openness of each country: 0 for no news media to code (e.g., Vanuatu); 1 for clearly free news media (e.g., U.S., U.K., and Australia); 2 for imperfectly free but relatively free news media (e.g., Finland and Mexico); 3 for restricted news media but not directly controlled by the government (e.g., Jordan and El Salvador); 4 for government controlled or strictly censored news media (e.g., China and North Korea). The audience costs variable is dichotomized—'1' if a country has free or imperfectly free news media capable of functioning as an area of political competition or debate (i.e., categories 1 and 2); it is '0' otherwise (i.e., the news media are either restricted or controlled by the government, or no news media, categories 0, 3 and 4).¹⁴

Corresponding to Li and Resnick's study, we have argued for the negative relationship between democratic hindrance and FDI in the sense that foreign investors should be less likely to invest in democratic countries that are perceived as sending negative policy signals and regarded as risky investment partners. To capture this effect, we use the *Institutional Investor's* country credit risk ratings (IIR), a measure of investors' perceptions of riskiness in terms of each country's creditworthiness and default risk.¹⁵ We empirically isolate the effect of IIR in democratic developing countries from that in nondemocratic ones. A measure of democratic hindrance combines IIR ratings with a dichotomous measure based on the Polity dataset. A country is defined as a democracy if the composite indicator of Polity on a scale ranging from 0 (least democratic) to 20 (most democratic) is greater than or equal to 16. The cutoff value of 16 follows the practice of international relations studies (e.g., Dixon 1994). The democratic hindrance variable is coded as equal to IIR ratings if a country is a democracy and coded zero for nondemocracies. Because we do not claim that there is an interaction

¹¹ A detailed comparison of FDI/GDP versus FDI (and the log of FDI) is discussed in the Appendix.

¹² Jensen and McGillivray (2005) and Jensen (2006) introduce another measure of veto players based on the World Bank's Database of Political Institutions (see Beck, Clarke, Groff, Keefer, and Walsh 2000). This measure is quite different from Tsebelis' theory of veto players.

¹³ It should be noted that as Tsebelis (1999:594, footnote 11) acknowledges, internal coherence is too difficult to measure.

¹⁴ Although it is tempting to treat the audience costs variable as a scale, Van Belle notes that "categorical coding used for this analysis *does not* produce a five-point interval scale and the degree to which it can be used as an ordinal scale is unclear" (Van Belle 2000:140).

¹⁵ As an anonymous reviewer points out, measures of corruption and economic freedom might also capture some of the concepts put forward by Li and Resnick. But we believe that those measures are not as accurate as the democratic hindrance measure. It is worthwhile noting that one of Jensen's models tests the effect of corruption and finds no relationship (p. 603). Corruption was not part of Jensen's theoretical reasoning about democratic institutions. The economic freedom data that were collected by Gwartney, Lawson, and Easterly (2006) have a measure that is based on two survey questions about "Access of citizens to foreign capital markets and foreign access to domestic capital markets." Since the first survey question is about financial restrictions imposed on 'domestic' citizens, we did not incorporate it into our analysis. Besides, the measure was collected only for two separate years, 1995 and 2000, which overlap with our study period.

effect between democracy and IIR ratings, we do not include democratic hindrance, democracy (Polity), and IIR ratings in the same model, but only democratic hindrance. This model specification is in line with Li's (2005) recent study.

Empirical Findings from OLS, Fixed-Effects, and Random-Effects

Table 1 shows the results where veto players and democratic hindrance are tested. Columns 1, 3, and 5 show the results where the positive effect of veto players alone is tested, while columns 2, 4, and 6 report the results where both the positive effect of veto players and negative effect of democratic hindrance are tested together in the same model for a competing effect of democratic institutions.¹⁶ As expected by Jensen, it appears that the existence of veto players in democratic countries is more likely to increase policy stability or credibility for multinational corporations' investment, at the same time reducing investment policy volatility. Thus, it appears that Jensen's conceptualization inferred from the veto players theory was on target. By contrast, Li and Resnick's theoretical argument did not pass the empirical tests as predicted. Contrary to their hypothesis about the negative influence of democratic institutions, democratic hindrance has a positive effect on FDI inflows (see columns 2, 4, and 6). Foreign investors do not perceive democratic institutions to be harmful for investment. The bottom line is that, as far as the role of veto players is concerned, democratic institutions appear to attract more FDI inflows than nondemocratic ones. Other economic variables such as default, economic development, and lagged FDI are also significant and with the right signs in most of the specifications.

Table 2 shows the results where audience costs and democratic hindrance are tested. Columns 1, 3, and 5 show the results where the positive effect of audience costs alone is tested, while columns 2, 4, and 6 report the results where both the positive effect of audience costs and negative effect of democratic hindrance together are tested for a competing effect. Neither audience costs nor democratic hindrance are supported. One exception can be found in the first column where the audience costs hypothesis alone is tested without considering the competing effect of the democratic hindrance variable. These results go against Jensen's (2003:593) theoretical reasoning which states that, "if governments make agreements with multinational firms and renege on the contracts after the investment has been made, democratic leaders may suffer electoral costs." It appears that, unlike the case of veto players, audience costs may have little to do with FDI inflows. It should be stressed that a theory of audience costs was originally derived from the political role of the public and media penalizing war losers in democratic countries.¹⁷ It is possible for citizens to punish leaders' war performance because wars are traumatic experiences that tend to create a long-lasting memory, whereas people may not follow the multinational deals that their leaders make and then breach since this type of memory elapses quickly. Our results suggest that one should be careful when explaining (or theorizing about) FDI inflows through audience costs.¹⁸ As far as the economic variables are concerned, economic development is significant in most specifications but the other variables are not.

¹⁶ Li and Resnick include the negative effect of democracy (Polity) and the positive effect of property rights protection in the same model to see a competing effect of democratic institutions.

¹⁷ It is worthwhile noting that Chiozza and Goemans offer some preliminary evidence that leaders do not get punished for failure in foreign policy (Chiozza and Goemans 2003).

¹⁸ We also speculate that the sample size which is much smaller in Table 2 than in Table 1 may result in the insignificance of audience costs. Unlike the veto players data, the audience costs data are not available from 1996 on, so the recent dynamics of FDI inflows may not be reflected in the analysis.

TABLE 1. The Effects of Veto Players and Democratic Hindrance on FDI Inflows

Variable	Dependent Variable: FDI/GDP					
	OLS			Random-Effects		
	1	2	3	4	5	6
FDI _{t-1}	0.3085*** (0.1091)	0.3190*** (0.1074)	0.1960*** (0.0357)	0.1956*** (0.0357)	0.4041*** (0.0311)	0.4049*** (0.0310)
Budget Deficit _{t-1}	-0.0410* (0.0255)	-0.0422*** (0.0253)	0.0089 (0.0263)	0.0050 (0.0263)	-0.0326* (0.0202)	-0.0336*** (0.0202)
Government Expenditure _{t-1}	0.0183 (0.0229)	0.0272 (0.0222)	-0.0720** (0.0347)	-0.0656** (0.0346)	0.0127 (0.0185)	0.0197 (0.0183)
Inflation _{t-1}	-0.0001 (0.0001)	-0.0001* (0.0001)	-0.0001* (0.0001)	-0.0001* (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)
Exchange Rate Volatility _{t-1}	5.70e-08 (3.57e-07)	-1.10e-08 (3.74e-07)	-7.20e-08 (1.01e-06)	-7.48e-08 (1.01e-06)	-2.32e-08 (9.95e-07)	-7.31e-08 (9.94e-07)
IRR _{t-1}	0.0218*** (0.0083)		0.0257* (0.0186)		0.0182*** (0.0104)	
Default _t	-0.6387** (0.3290)	-0.6317** (0.3298)	-0.9205*** (0.3683)	-0.9159*** (0.3684)	-0.6287** (0.3415)	-0.6247** (0.3414)
Default _{t-1}	0.1157 (0.3528)	0.0899 (0.3527)	0.3220 (0.4500)	0.2659 (0.4486)	0.1362 (0.4170)	0.1212 (0.4166)
Default _{t-2}	0.1661 (0.3031)	0.0270 (0.2965)	-0.2400 (0.3805)	-0.3268 (0.3693)	0.0663 (0.3229)	-0.0490 (0.3130)
External Debt _{t-1}	0.0042** (0.0020)	0.0040** (0.0020)	0.0013 (0.0020)	0.0010 (0.0020)	0.0036*** (0.0013)	0.0035*** (0.0013)
Veto Players _{t-1}	1.2516*** (0.5160)	0.8050* (0.5669)	1.4388** (0.6267)	1.2300** (0.6426)	1.1582*** (0.4360)	0.7645* (0.4924)
Democratic Hindrance _{t-1}		0.0121** (0.0058)		0.0141* (0.0101)		0.0116** (0.0065)
Economic Growth _{t-1}	0.0256 (0.0239)	0.0315* (0.0236)	0.0113 (0.0190)	0.0135 (0.0190)	0.0237* (0.0172)	0.0291** (0.0171)
Economic Development _{t-1}	0.4481*** (0.1409)	0.4952*** (0.1389)	0.9875* (0.6807)	1.0396* (0.6747)	0.4453*** (0.1624)	0.4753*** (0.1581)
Economic Size _{t-1}	-0.1732** (0.0964)	-0.1174* (0.0897)	-0.1200 (0.4864)	-0.1380 (0.4884)	-0.1671** (0.0842)	-0.1248* (0.0777)
Constant	-1.9182* (1.3991)	-2.3238** (1.3868)	-4.3974 (3.6072)	-4.0829 (3.6787)	-1.8004* (1.2772)	-2.0286* (1.2384)
Observations	910	910	835	835	910	910
R ²	0.22	0.22	0.23	0.24	0.39	0.39
Overall R ²						

Note: OLS estimates and standard errors in parentheses are based on panel-corrected standard errors (PCSE) with AR (1) correction; fixed-effects with AR (1) correction; and random-effects with AR (1) correction.
 *** $p < .01$, ** $p < .05$, * $p < .10$.

TABLE 2. The Effects of Audience Costs and Democratic Hindrance on FDI Inflows

Variable	Dependent Variable: FDI/GDP					
	OLS		Fixed-Effects		Random-Effects	
	1	2	3	4	5	6
FDI _{t-1}	-0.1096 (0.1865)	-0.1086 (0.1861)	-0.2023*** (0.0502)	-0.2024*** (0.0502)	-0.0558 (0.0453)	-0.0530 (0.0453)
Budget Deficit _{t-1}	-0.0395 (0.0316)	-0.0410* (0.0313)	-0.0208 (0.0307)	-0.0223 (0.0306)	-0.0404** (0.0243)	-0.0412** (0.0244)
Government Expenditure _{t-1}	-0.0081 (0.0370)	-0.0034 (0.0351)	-0.0489 (0.0474)	-0.0450 (0.0475)	-0.0059 (0.0268)	-0.0016 (0.0270)
Inflation _{t-1}	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)
Exchange Rate Volatility _{t-1}	1.69e-07 (2.51e-07)	1.32e-07 (3.01e-07)	3.97e-07 (9.69e-07)	3.87e-07 (9.68e-07)	1.64e-07 (9.26e-07)	1.27e-07 (9.27e-07)
IIR _{t-1}	0.0304*** (0.0112)		-0.0034 (0.0369)		0.0255** (0.0151)	
Default _t	-0.2437 (0.2046)	-0.2550 (0.2012)	-0.3174 (0.4576)	-0.2781 (0.4555)	-0.2224 (0.3873)	-0.2268 (0.3885)
Default _{t-1}	-0.1856 (0.2201)	-0.2868* (0.2140)	-0.0836 (0.5214)	-0.0484 (0.5162)	-0.2236 (0.4451)	-0.2992 (0.4441)
Default _{t-2}	0.2090 (0.2264)	-0.0016 (0.2233)	-0.1477 (0.5048)	-0.0909 (0.4867)	0.1566 (0.3747)	-0.0183 (0.3617)
External Debt _{t-1}	0.0038*** (0.0015)	0.0037*** (0.0015)	0.0043* (0.0026)	0.0041* (0.0026)	0.0037** (0.0016)	0.0035** (0.0016)
Audience Costs _{t-1}	0.2329* (0.1604)	0.2275 (0.2071)	0.0990 (0.5927)	-0.0641 (0.6092)	0.2483 (0.2936)	0.2162 (0.3223)
Democratic Hindrance _{t-1}		0.0058 (0.0076)		0.0180 (0.0162)		-0.0021 (0.0104)
Economic Growth _{t-1}	0.0242 (0.0273)	0.0267 (0.0274)	0.0053 (0.0215)	0.0053 (0.0214)	0.0239* (0.0186)	0.0262* (0.0186)
Economic Development _{t-1}	0.4199*** (0.1666)	0.6226*** (0.1972)	1.0078 (1.0030)	0.9790 (0.9994)	0.4199** (0.2277)	0.5743*** (0.2176)
Economic Size _{t-1}	-0.0631 (0.1567)	0.0587 (0.1419)	0.1817 (0.6739)	0.0870 (0.6744)	-0.0485 (0.1240)	0.0456 (0.1176)
Constant	-2.4422 (2.5748)	-4.1751* (2.5894)	-7.6441*** (2.8479)	-6.8322*** (2.9007)	-2.4591* (1.8533)	-3.7526** (1.8015)
Observations	548	548	491	491	548	548
R ²	0.07	0.06	0.01	0.01	0.07	0.07
Overall R ²						

Note: OLS estimates and standard errors in parentheses are based on panel-corrected standard errors (PCSE) with AR (1) correction; fixed-effects with AR (1) correction; and random-effects with AR (1) correction.
 *** $p < .01$, ** $p < .05$, * $p < .10$.

It should be noted that veto players and audience costs do not appear in the same model in response to a concern that they are conceptually correlated with each other. Both of them capture some positive aspects of democracy. By contrast, each of them is independently tested against democratic hindrance in the same model because the latter should capture the possibility that democratic institutions hinder FDI inflows. In the next sections, we compare the above results with those from a within ECM specification.

Research Design for Within ECM Regression

As noted, Ahlquist's (2006) study employs within ECM, which is used below for more sensitive tests of the three more nuanced theoretical arguments. Within ECM specifications that take temporal dynamics into consideration employ de-meaned independent and dependent variables (i.e., $\tilde{Y}_t = Y_t - \bar{Y}$ and $\tilde{X}_t = X_t - \bar{X}$, respectively) and exclude the intercept term. Two of the main advantages of within ECM over OLS, fixed- and random-effects are (i) to capture both long and short-term dynamics in a single statistical model and (ii) to find out the nature of their idiosyncratic concerns within particular countries over time by simultaneously estimating both within and between effects with the panel means for each independent variable as well as the de-meaned independent variables.¹⁹ The within ECM equation where Δ is the first difference operator is as follows:

$$\Delta \tilde{Y}_t = \beta_1 \tilde{Y}_{t-1} + \beta_2 \Delta \tilde{X}_t + \beta_3 \tilde{X}_{t-1} + \beta_4 Z_t + \varepsilon \quad (2)$$

Here, X is a matrix of covariates believed to tend toward an equilibrium relationship with Y ; Z is a matrix of exogenous variables; β_1 represents how fast the ECM system returns to equilibrium given a change in the value of one of the independent variables and should fall in the interval $(-1, 0]$ if the process is stationary; coefficients on the first-differenced terms, β_2 , represent the short-term effects of a one-time change in the independent variable while the lagged coefficients, β_3 , are the long-term effects for any changes in X_t (The actual magnitude of this long-term relationship, however, is calculated in β_3 divided by $-\beta_1$) (for more details, see also Zorn 2001; De Boef and Keele 2005; Goodrich 2005).

Empirical Findings from Within ECM Regression

Table 3 shows results that satisfy the requirement of the within ECM specification since the coefficient for the lagged-dependent variable is in the range $(-1, 0]$. Although coefficients represent the effects of a change in an independent variable relative to the country mean for that variable, our interpretation is based primarily on coefficient signs and statistical significance to avoid some confusion that may arise from such technicalities. The first column is the replicated results of Ahlquist's original within ECM model reported in Table 3 on page 699. The replication is successfully done, producing exactly the same coefficients and standard errors as does Ahlquist. In the second column, political constraints created by veto players appear to have a long-term effect, but have no short-term effect, meaning that the effect of veto players takes longer than 1 year to filter through. In the third column, while democratic hindrance has some long-term effect, veto players show no significance at all. In the fourth column, audience costs show no effect. In the final column, democratic hindrance indicates some long-term

¹⁹ Thanks to De Boef and Keele (2005), the error correction model has become appropriate for stationary data against the conventional view that it is generally thought to be isomorphic to integrated data and the modeling of cointegrated processes.

TABLE 3. The Effects of Veto Players, Audience Costs, and Democratic Hindrance on FDI Inflows: Within ECM

Variable	Dependent Variable: FDI/GDP				
	1	2	3	4	5
FDI _{<i>t</i>-1}	-0.6465*** (0.0922)	-0.6734*** (0.0990)	-0.6662*** (0.0976)	-0.7411*** (0.1463)	-0.7473*** (0.1452)
Budget Deficit _{<i>t</i>-1}	0.0125 (0.0282)	0.0138 (0.0302)	0.0109 (0.0306)	0.0126 (0.0281)	0.0088 (0.0281)
Δ Budget Deficit _{<i>t</i>}	0.0119 (0.0248)	0.0241 (0.0287)	0.0232 (0.0288)	0.0326 (0.0263)	0.0315 (0.0258)
Government Expenditure _{<i>t</i>-1}	-0.0309 (0.0261)	-0.0411* (0.0295)	-0.0364 (0.0292)	-0.0420 (0.0335)	-0.0423* (0.0327)
Δ Government Expenditure _{<i>t</i>}	-0.0474 (0.0412)	-0.0595* (0.0438)	-0.0559 (0.0437)	-0.0011 (0.0343)	-0.0017 (0.0337)
Inflation _{<i>t</i>-1}	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)	0.0001 (0.0001)	0.0001 (0.0001)
Δ Inflation _{<i>t</i>}	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)	0.0001 (0.0001)	0.0001 (0.0001)
Exchange Rate Volatility _{<i>t</i>-1}	-6.20e-07 (5.91e-07)	-7.93e-07 (6.27e-07)	-9.75e-07* (6.63e-07)	-5.62e-07* (4.24e-07)	-5.53e-07 (5.01e-07)
Δ Exchange Rate Volatility _{<i>t</i>}	-4.92e-07* (3.81e-07)	-6.44e-07* (4.02e-07)	-7.27e-07** (4.21e-07)	-4.65e-07* (2.84e-07)	-4.75e-07* (3.37e-07)
IIR _{<i>t</i>-1}	0.0283*** (0.0099)	0.0296*** (0.0110)		-0.0016 (0.0137)	
Δ IIR _{<i>t</i>-1}	0.0142 (0.0241)	0.0219 (0.0272)		0.0008 (0.0262)	
Default _{<i>t</i>}	-0.3446* (0.2542)	-0.3039 (0.2802)	-0.2576 (0.2867)	-0.0616 (0.2256)	-0.0574 (0.2213)
Default _{<i>t</i>-1}	0.1827 (0.3009)	0.1050 (0.3238)	0.0430 (0.3255)	-0.2898 (0.2848)	-0.2723 (0.2738)
Default _{<i>t</i>-2}	0.0376 (0.2526)	0.1382 (0.2760)	0.0771 (0.2773)	-0.1673 (0.2420)	-0.1645 (0.2180)
External Debt _{<i>t</i>-1}	0.0010 (0.0024)	0.0010 (0.0026)	0.0009 (0.0027)	0.0010 (0.0018)	0.0006 (0.0018)
Δ External Debt _{<i>t</i>}	-0.0024 (0.0041)	-0.0027 (0.0043)	-0.0025 (0.0043)	-0.0025 (0.0027)	-0.0025 (0.0027)
Democracy (Polity) _{<i>t</i>-1}	0.0449*** (0.0162)				
Δ Democracy (Polity) _{<i>t</i>}	0.0571* (0.0347)				
Democracy (Polity) Persistence _{<i>t</i>}	0.0023*** (0.0012)				
Veto Players _{<i>t</i>-1}					
Δ Veto Players _{<i>t</i>}		0.9770* (0.6255)	0.7106 (0.6933)		
Democratic Hindrance _{<i>t</i>-1}		0.6636 (0.7636)	0.4228 (0.7821)		
Δ Democratic Hindrance _{<i>t</i>}			0.0140** (0.0066)		
Audience Costs _{<i>t</i>}			0.0064 (0.0101)	0.0262 (0.2517)	0.0185*** (0.0075)
Audience Costs _{<i>t</i>-1}				-0.1724 (0.2338)	0.0144 (0.0134)
Economic Growth _{<i>t</i>-1}	0.0426** (0.0228)	0.0298 (0.0263)	0.0337* (0.0249)	-0.1756 (0.2616)	-0.1756 (0.2616)
Δ Economic Growth _{<i>t</i>}	0.0141 (0.0226)	0.0127 (0.0256)	0.0134 (0.0256)	0.0222 (0.0334)	0.0204 (0.0332)
Economic Development _{<i>t</i>-1}	0.9104** (0.4126)	1.0531** (0.4619)	0.9639** (0.4567)	0.9253* (0.6365)	0.9206 (0.0317)
					0.7663 (0.6288)

Table 3. Continued

Variable	Dependent Variable: FDI/GDP				
	1	2	3	4	5
Δ Economic Development _t	1.3157 (1.2250)	1.6642* (1.2961)	1.7715* (1.3172)	2.4046* (1.8529)	2.5773* (1.8121)
Economic Size _{t-1}	0.0679 (0.3003)	0.1007 (0.3202)	0.2554 (0.3289)	0.2907 (0.3912)	0.0675 (0.3907)
Δ Economic Size _t	0.4602 (0.6705)	0.6320 (0.7223)	0.6902 (0.7170)	1.3319*** (0.7837)	1.2668* (0.7767)
Observations	1,073	990	990	614	614
Number of countries	81	78	78	62	62
R ²	0.33	0.34	0.34	0.40	0.41
Wald χ^2 (df)	77.94 (25)	70.43 (24)	72.50 (24)	70.22 (24)	72.02 (24)

Note: Standard errors are panel corrected.
 ***p < .01, **p < .05, *p < .10.

effect, but audience costs show neither long- nor short-term effects. It should be noted that the sign of the coefficient for democratic hindrance turns out to be positive, which does not corroborate the prediction of Li and Resnick.

Concluding Remarks

This study was motivated by the puzzling arguments and findings on the relationship between regime type and FDI reported by Jensen (2003) and Li and Resnick (2003). Our reading of these two studies is that one cannot be sure whether democratic institutions attract more FDI inflows or not. We have pointed out that the synthesized theoretical explanations by Jensen and Li and Resnick needed to be deconstructed in order to evaluate exactly how domestic political factors are likely to influence the decisions of MNEs to invest. In this regard, we have elaborated on three causal mechanisms in the form of veto players, audience costs, and democratic hindrance. The first two theories appeared in Jensen's study while the last one is in Li and Resnick's study. We have introduced three more precise measures that are linked exclusively to each of these three causal explanations. Based on OLS, fixed- and random-effects, and within ECM for developing countries over the past two decades, our reexamination reveals some weak support for the benevolent function of democratic institutions. While institutional credibility enforced by veto players in democracies may contribute to an increase of FDI inflows, political constraints produced by audience costs do not lead to more FDI. Counterintuitively, democratic hindrance may have some effect on increasing FDI inflows, not decreasing them. Further refinement of theory and statistical testing may be required.

It appears that MNEs are more concerned about whether developing democracies can maintain consistent policy environments for them than whether renegade democratic governments can be punished electorally. Put differently, FDI inflows are correlated with politics of veto players who are likely to have a direct influence in thwarting investment policy reversals against MNEs, but not connected with the politics of audience costs that may not closely follow particular details of FDI policy changes by national leaders. These results offer interesting policy implications for developing democratic countries. If nascent democracies want to pursue desirable economic growth and development targets by attracting more FDI inflows, their best shot may come with the establishment of democratic institutions that can ensure checks and balances enforced by veto players that hinder national leaders from making arbitrary investment policy changes.

These results provide some suggestions for further research. First, this analysis has been performed only at the national level, which may disguise the dynamic role of multinational corporations, the main engines for FDI inflows to each country. Given that a multinational corporation often operates beyond the control of government, the analysis should also focus on the firm level.²⁰ It is necessary to discern profitable business prospects of multinationals from regime characteristics of each nation-state with respect to FDI inflows. In other words, this firm-level analysis may ascertain whether the results at the national level can be replicated and may give better directions in explaining and understanding the dynamics of the integrated world economy. Second, it is also plausible that democracy is not solely exogenous, that some economic factors like economic development are considered excellent predictors of the survival of democracy, and that foreign investment may be attributed to economic development and the quality of democracy. In this circumstance, the current analysis could be

²⁰ Henisz (2000b), for example, provides an excellent pioneering work on the role of veto players on multinational corporations' entry strategies.

biased by ignoring endogeneity, meaning that simultaneous equation modeling should be explored.

References

- ADCOCK, ROBERT, AND DAVID COLLIER. (2001) Measurement Validity: A Shared Standard for Qualitative and Quantitative Research. *American Political Science Review* 95(3):529–546.
- AHLQUIST, JOHN S. (2006) Economic Policy, Institutions, and Capital Flows: Portfolio and Direct Investment Flows in Developing Countries. *International Studies Quarterly* 50(3):681–704.
- BALTAGI, BADI H. (2001) *Econometric Analysis of Panel Data*. 2nd edition. New York: John Wiley & Sons.
- BECK, THORSTEN, GEORGE CLARKE, ALBERTO GROFF, PHILIP KEEFER, AND PATRICK WALSH. (2000) New Tools and New Tests in Comparative Political Economy: The Database of Political Institutions. *World Bank Research Paper Series* 2283.
- CHAN, STEVE, AND MELANIE MASON. (1992) Foreign Direct Investment and Host Country Conditions: Looking from the Other Side Now. *International Interactions* 17(3):215–232.
- CHIOZZA, GIACOMO, AND H. E. GOEMANS. (2003) Peace through Insecurity: Tenure and International Conflict. *Journal of Conflict Resolution* 47(4):443–467.
- CHOI, SEUNG-WHAN, AND PATRICK JAMES. (2005) *Civil-Military Dynamics, Democracy, and International Conflict: A New Quest for International Peace*. New York: Palgrave.
- CHOI, SEUNG-WHAN, AND PATRICK JAMES. (2007) Media Openness, Democracy and Militarized Interstate Disputes. *British Journal of Political Science* 37(1):23–46.
- CHOI, SEUNG-WHAN, AND YIAGADEESEN SAMY. (2005) “Puzzling Through: The Impact of Regime Type on Inflows of Foreign Direct Investment”. Multinational Enterprises Working Paper 7-2005. <http://nathanjensen.wustl.edu/me/files/WP7.pdf> Multinational Enterprises and the Global Political Economy (A Program of the Murray Weidenbaum Center on the Economy, Government, and Public Policy at Washington University in St. Louis).
- CLAGUE, CHRISTOPHER, PHILIP KEEFER, STEPHEN KNACK, AND MANCUR OLSON. (1994) *Institutions and Economic Performance: A New Look at Democracies and Growth*. IRIS Working Paper, University of Maryland.
- CLAUSEWITZ, CARL VON. (1832/1976) *On War*. edited and translated by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press.
- DE BOEF, SUZANNE, AND LUKE KEELE. (2005) Revisiting Dynamic Specification. Political Methodology Working Papers.
- DIXON, WILLIAM J. (1994) Democracy and the Peaceful Settlement of International Conflict. *American Political Science Review* 88(1):14–32.
- DUNNING, J. H.. (1977) Trade, Location of Economic Activity and MNE: A Search for an Eclectic Approach. In *The International Allocation of Economic Activity*, edited by B. Ohlin, P.O. Hesselborn and P.M. Wijkman. London: Macmillan.
- EYERMAN, JOE, AND ROBERT A. HART JR. (1996) An Empirical Test of the Audience Cost Proposition: Democracy speaks Louder Than Words. *Journal of Conflict Resolution* 40(4):597–616.
- GLEDITSCH, KRISTIAN S., AND MICHAEL D. WARD. (1997) Double Take: A Reexamination of Democracy and Autocracy in Modern Polities. *Journal of Conflict Resolution* 41(3):361–383.
- GOODRICH, BENJAMIN KING. (2005) Problems with and Solutions for Two Dimensional Models of Continuous Dependent Variables. Political Methodology Working Papers. Available at <http://www.people.fas.harvard.edu/~goodrich/Research/Methods/TSCS/ProblemsSolutions.pdf>.
- GREEN, DONALD P., SOO YEON KIM, AND DAVID H. YOON. (2001) Dirty Pool. *International Organization* 55(2):441–468.
- GURR, TED ROBERT, KEITH JAGGERS, AND WILL H. MOORE. (1989) *Polity II Codebook*. University of Colorado at Boulder, CO: Center for Comparative Politics.
- GURR, TED ROBERT, KEITH JAGGERS, AND WILL H. MOORE. (1991) The Transformation of the Western State: The Growth of Democracy, Autocracy, and State Power Since 1800. In *On measuring Democracy: Its Consequences and Concomitants*, edited by Alex Inkeles. New Brunswick and London: Transaction Publishers.
- GWARTNEY, JAMES, ROBERT LAWSON, AND WILLIAM EASTERLY. (2006) *Economic Freedom of the World: 2006 Annual Report*. Vancouver, BC: The Fraser Institute.
- HELPMAN, ELHANAN. (1984) A Simple Theory of International Trade with Multinational Corporations. *Journal of Political Economy* 94(3):451–471.
- HENISZ, WITOLD J. (2000a) The Institutional Environment for Economic Growth. *Economics and Politics* 12(1):1–31.

- HENISZ, WITOLD J. (2000b) The Institutional Environment for Multinational Investment. *Journal of Law, Economics, and Organization* 16(2):334–364.
- HENISZ, WITOLD J. (2004) Political Institutions and Policy Volatility. *Economics and Politics* 16(1):1–27.
- JENSEN, NATHAN M. (2003) Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment. *International Organization* 57(3):587–616.
- JENSEN, NATHAN. (2006) *Nation-States and the Multinational Corporation: A Political Economy of Foreign Direct Investment*. Princeton and Oxford: Princeton University Press.
- JENSEN, NATHAN, AND FIONA MCGILLIVRAY. (2005) Federal Institutions and Multinational Investors: Federalism, Government Credibility, and Foreign Direct Investment. *International Interactions* 31(4):303–325.
- KING, GARY, ROBERT O. KEOHANE, AND SIDNEY VERBA. (1994) *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton, NJ: Princeton University Press.
- LI, QUAN. (2005) Does Democracy Promote or Reduce Transnational Terrorist Incidents? *Journal of Conflict Resolution* 49(2):278–297.
- LI, QUAN, AND ADAM RESNICK. (2003) Reversal of Fortunes: Democratic Institutions and Foreign Direct Investment Inflows to Developing Countries. *International Organization* 57(1):175–211.
- MARKUSEN, JAMES R. (1984) Multinationals, Multi-plant Economies, and the Gains from Trade. *Journal of International Economics* 16(3/4):205–226.
- MARKUSEN, JAMES R. (1997) *Trade versus Investment Liberalization*. NBER Working Paper No. 6231, October, Cambridge, MA: National Bureau of Economic Research.
- MILNER, HELEN V., AND ROBERT O. KEOHANE. (1996) Internationalization and Domestic Politics: An Introduction. In *Internationalization and Domestic Politics*, edited by Robert O. Keohane and Helen V. Milner. Cambridge: Cambridge University Press.
- MUNCK, GERARDO, AND JAY VERKUILEN. (2002) Conceptualizing and Measuring Democracy: Evaluating Alternative Indices. *Comparative Political Studies* 35(1):5–34.
- NORTH, DOUGLASS C. (1990) *Institutions, Institutional Change and Economic Performance*. Cambridge, UK: Cambridge University Press.
- ONEAL, JOHN R. (1994) The Affinity of Foreign Investors for Authoritarian Regimes. *Political Research Quarterly* 47(3):565–588.
- ONEAL, JOHN R., AND BRUCE RUSSETT. (2001) Clear and Clean: The Fixed Effects of the Liberal Peace. *International Organization* 55(2):469–485.
- PRINS, BRANDON C. (2003) Institutional Instability and the Credibility of Audience Costs: Political Participation and Interstate Crisis Bargaining, 1816–1992. *Journal of Peace Research* 40(1):67–84.
- REINHART, CARMEN M., AND KENNETH S. ROGOFF. (2004) Serial Default and the Paradox of Rich to Poor Capital Flows. *American Economic Review* 94(2):53–58.
- RUSSETT, BRUCE, AND JOHN R. ONEAL. (2001) *Triangulating Peace: Democracy, Interdependence, and International Organizations*. New York and London: W.W. Norton & Company.
- SCHULTZ, KENNETH A. (1999) Do Democratic Institutions constrain or inform? Contrasting Two Institutional Perspectives on Democracy and War. *International Organization* 53(2):233–266.
- STATA CROSS-SECTIONAL TIME-SERIES. *Reference Manual, Release 8*.
- TSEBELIS, GEORGE. (1995) Decision Making in Political Systems: Veto Players in Presidentialism, Parliamentarism, Multicameralism, and Multipartyism. *British Journal of Political Science* 25(3):289–325.
- TSEBELIS, GEORGE. (1999) Veto Players and Law Production in Parliamentary Democracies: An Empirical Analysis. *American Political Science Review* 93(3):591–608.
- TSEBELIS, GEORGE. (2002) *Veto Players: How Political Institutions Work*. New York/ Princeton, NJ: Russell Sage Foundation/ Princeton University Press.
- VAN BELLE, DOUGLAS A. (1997) Press Freedom and the Democratic Peace. *Journal of Peace Research* 34(4):405–414.
- VAN BELLE, DOUGLAS A. (2000) *Press Freedom and Global Politics*. Westport, Connecticut and London: Praeger.
- WOLFSON, MURRAY, ZAGROS MADJD-SADJADI, AND PATRICK JAMES. (2004) Identifying National Types: A Cluster Analysis of Politics, Economics, and Conflict. *Journal of Peace Research* 41(5):607–623.
- WORLD BANK. (2005) *World Development Indicators*. CD-Rom. Washington, DC: World Bank.
- ZORN, CHRISTOPHER. (2001) Estimating Between- and Within-Cluster Covariate Effect, with an Application to Models of International Disputes. *International Interactions* 27(4):433–445.

Appendix

Jensen (2003) uses FDI/GDP ratios as the dependent variable, Li and Resnick (2003) choose FDI in dollar amounts, and anonymous reviewers suggest the

log of FDI in dollar amounts. It should be clear from the outset that we do not recommend the log of FDI because FDI inflows can be zero, positive or negative. Logarithms are a transformation that can only reduce positive skew. Taking the log of zero or negative FDI inflows does not mathematically make sense by definition. In Stata, it produces missing observations, so we lose valuable information and in this sense, the results with the log of FDI are not useful to examine exactly whether regime type matters in inducing or discouraging FDI inflows.

In any case, we compare those three different measures of FDI inflows on the basis of Ahlquist's (2006) econometric model as follows:

$$\begin{aligned} \text{FDI Inflows}_t = & \alpha + \beta_1(\text{Democracy(Polity)}_{t-1}) \\ & + \beta_2(\text{Democracy(Polity)Persistence}_{t-1}) \\ & + \beta_{3\text{tok}}(\text{Economic Variables}_{t-1}) + \varepsilon \end{aligned}$$

This model is similar to Equation 1 in the text where the flexible error correction specification is not applied. This model should be sufficient enough to demonstrate how the sign of the coefficient of the democracy (Polity) variable changes with each of the three different versions of the dependent variable. Ahlquist's democracy (Polity) variable is measured on a scale of 0 (most autocratic) to 20 (most democratic) from Polity IV. Ahlquist's dependent variable is net FDI inflows as a percentage of GDP from *World Development Indicators* (World Bank, 2005). While the coefficient sign for the democracy (Polity) variable with FDI/GDP (and that with the log of FDI) is expected to be positive as in Jensen's study (and Ahlquist's), that with FDI is anticipated to be negative as in Li and Resnick's study.

Table A1 shows the empirical results. We employ a one-tailed test for each variable not only because the democracy hypothesis (and the others) is directional, but also because we follow the practice of Jensen and Li and Resnick for comparison. Ahlquist's within ECM uses 1,073 observations. Taking a 1 year lag as expressed in Equation 1, however, results in slightly fewer observations than Ahlquist's. The models with FDI/GDP and FDI have the same number of observations for each statistical method. The OLS methods with both FDI/GDP and FDI use 910 observations; the fixed-effects methods use 835 observations; and the random-effects methods use 910. The models with the log of FDI use much fewer observations because they treat zero and negative numbers of FDI inflows as missing. The democracy (Polity) variable with FDI/GDP as the dependent variable shows the expected positive sign with statistical significance across the three different statistical models, while that with FDI indicates the expected negative sign (but is not significant). These results reveal that the change in sign of the democracy variable coefficient is the direct result of how the dependent variable is operationalized, that is, the issue of economic size. It is not surprising that the models with the log of FDI in dollar amounts show somewhat inconsistent results across models because of the illogical logarithm transformation on zero and negative inflows; while OLS and random-effects support the democracy hypothesis, fixed-effects produce no significance (see the last three columns on page 100).

TABLE A1. The Effect of Democracy (Polity) on FDI Inflows

Variable	FDI/GDP						FDI (\$)						log(FDI)		
	FDI/GDP		Random-Effects		FDI (\$)		Random-Effects		log(FDI)		Random-Effects		OLS	Fixed-Effects	Random-Effects
	OLS	Fixed-Effects	Random-Effects	OLS	Fixed-Effects	Random-Effects	OLS	Fixed-Effects	Random-Effects	OLS	Fixed-Effects	Random-Effects	OLS	Fixed-Effects	Random-Effects
FDI _{t-1}	0.3074*** (0.1092)	0.2293*** (0.0356)	0.4446*** (0.0304)	0.9732*** (0.0743)	0.4801*** (0.0416)	0.8523*** (0.0225)	0.6876*** (0.0487)	0.4801*** (0.0416)	0.8523*** (0.0225)	0.6876*** (0.0487)	0.4801*** (0.0416)	0.8523*** (0.0225)	0.6876*** (0.0487)	0.4801*** (0.0416)	0.8523*** (0.0225)
Budget Deficit _{t-1}	-0.0407* (0.0255)	0.0065 (0.0259)	-0.0320* (0.0197)	-0.0077 (0.0096)	-0.0125 (0.0162)	-0.0076 (0.0140)	-0.0035 (0.0076)	-0.0125 (0.0162)	-0.0076 (0.0140)	-0.0035 (0.0076)	-0.0125 (0.0162)	-0.0076 (0.0140)	-0.0035 (0.0076)	-0.0125 (0.0162)	-0.0076 (0.0140)
Government Expenditure _{t-1}	0.0279 (0.0244)	-0.0585** (0.0342)	0.0217 (0.0180)	0.0144** (0.0081)	0.0044 (0.0248)	0.0111 (0.0155)	-0.0001 (0.0053)	0.0044 (0.0248)	0.0111 (0.0155)	-0.0001 (0.0053)	0.0044 (0.0248)	0.0111 (0.0155)	-0.0001 (0.0053)	0.0044 (0.0248)	0.0111 (0.0155)
Inflation _{t-1}	-0.0001* (0.0001)	-0.0001* (0.0001)	-0.0001 (0.0001)	2.27e-06 (0.0001)	-0.0001 (0.0001)	-3.50e-06 (0.0001)	-0.0002 (0.0001)	-0.0001 (0.0001)	-3.50e-06 (0.0001)	-0.0002 (0.0001)	-0.0001 (0.0001)	-3.50e-06 (0.0001)	-0.0002 (0.0001)	-0.0001 (0.0001)	-0.0003* (0.0002)
Exchange Rate Volatility _{t-1}	1.16e-07 (3.42e-07)	-5.68e-08 (1.01e-06)	2.11e-08 (9.96e-07)	4.76e-07 (1.54e-06)	-2.39e-07 (5.28e-07)	4.18e-07 (5.53e-07)	2.34e-07 (3.36e-07)	-2.39e-07 (5.28e-07)	4.18e-07 (5.53e-07)	2.34e-07 (3.36e-07)	4.18e-07 (5.53e-07)	2.34e-07 (3.36e-07)	2.34e-07 (3.36e-07)	2.12e-07 (3.28e-07)	2.20e-07 (3.41e-07)
IIR _{t-1}	0.0236*** (0.0083)	0.0239* (0.0183)	0.0178** (0.0099)	0.0003 (0.0052)	0.0137 (0.0145)	0.0063 (0.0087)	0.0052* (0.0039)	0.0137 (0.0145)	0.0063 (0.0087)	0.0052* (0.0039)	0.0063 (0.0087)	0.0052* (0.0039)	0.0052* (0.0039)	0.0428*** (0.0115)	0.0156** (0.0074)
Default _t	-0.6607** (0.3343)	-0.9029*** (0.3679)	-0.6347** (0.3404)	-0.4143* (0.2716)	-0.5736*** (0.2186)	-0.3968** (0.2092)	-0.2141* (0.1602)	-0.5736*** (0.2186)	-0.3968** (0.2092)	-0.2141* (0.1602)	-0.4724*** (0.1598)	-0.2666** (0.1481)	-0.2141* (0.1602)	-0.4724*** (0.1598)	-0.2666** (0.1481)
Default _{t-1}	0.1191 (0.3549)	0.3579 (0.4575)	0.1630 (0.4234)	0.3009 (0.3020)	0.0715 (0.2322)	0.2061 (0.2244)	0.0487 (0.1778)	0.0715 (0.2322)	0.2061 (0.2244)	0.0487 (0.1778)	0.0322 (0.1609)	0.0681 (0.1512)	0.0487 (0.1778)	0.0322 (0.1609)	0.0681 (0.1512)
Default _{t-2}	0.1784 (0.3090)	-0.2561 (0.3810)	0.0731 (0.3221)	0.0165 (0.2108)	-0.3135* (0.2192)	-0.0240 (0.1981)	0.1984 (0.1552)	-0.3135* (0.2192)	-0.0240 (0.1981)	0.1984 (0.1552)	-0.0503 (0.1541)	0.1208 (0.1379)	0.1984 (0.1552)	-0.0503 (0.1541)	0.1208 (0.1379)
External Debt _{t-1}	0.0041** (0.0020)	0.0010 (0.0020)	0.0034*** (0.0013)	0.0003 (0.0004)	0.0017 (0.0015)	0.0010 (0.0011)	0.0020*** (0.0005)	0.0017 (0.0015)	0.0010 (0.0011)	0.0020*** (0.0005)	0.0019 (0.0021)	0.0044*** (0.0012)	0.0020*** (0.0005)	0.0019 (0.0021)	0.0044*** (0.0012)
Democracy (Polity) _{t-1}	0.0415*** (0.0134)	0.0628*** (0.0250)	0.0366*** (0.0139)	-0.0021 (0.0054)	-0.0105 (0.0196)	-0.0102 (0.0121)	0.0114*** (0.0048)	-0.0105 (0.0196)	-0.0102 (0.0121)	0.0114*** (0.0048)	0.0162 (0.0193)	0.0212** (0.0107)	0.0114*** (0.0048)	0.0162 (0.0193)	0.0212** (0.0107)
Democracy (Polity) Pct _t	-0.0028* (0.0021)	0.0058 (0.0057)	-0.0023 (0.0034)	0.0001 (0.0007)	0.0020 (0.0049)	0.0009 (0.0031)	-0.0003 (0.0008)	0.0020 (0.0049)	0.0009 (0.0031)	-0.0003 (0.0008)	0.0018 (0.0037)	0.0009 (0.0025)	-0.0003 (0.0008)	0.0018 (0.0037)	0.0009 (0.0025)
Economic Growth _{t-1}	0.0280 (0.0242)	0.0104 (0.0190)	0.0250* (0.0171)	0.0138* (0.0095)	0.0013 (0.0107)	0.0100 (0.0105)	0.0100 (0.0083)	0.0013 (0.0107)	0.0100 (0.0105)	0.0100 (0.0083)	-0.0052 (0.0085)	-0.0012 (0.0082)	0.0100 (0.0083)	-0.0052 (0.0085)	-0.0012 (0.0082)
Economic Development _{t-1}	0.4291*** (0.1415)	1.0459* (0.6597)	0.3963*** (0.1576)	-0.0745 (0.1245)	-0.2923 (0.4778)	-0.1280 (0.1423)	0.2352*** (0.0684)	-0.2923 (0.4778)	-0.1280 (0.1423)	0.2352*** (0.0684)	-0.4231 (0.3767)	0.5696*** (0.1280)	0.2352*** (0.0684)	-0.4231 (0.3767)	0.5696*** (0.1280)

TABLE A1. (Continued)

Economic Size _{<i>t</i>-1}	-0.1780** (0.0997)	-0.1064 (0.4770)	-0.1530** (0.0800)	0.1984*** (0.0737)	0.5460* (0.3654)	0.3427*** (0.0767)	0.2528*** (0.0478)	0.1484 (0.3008)	0.5983*** (0.0704)
Constant	-2.0136* (1.4230)	-5.8209* (3.6195)	-1.8358* (1.2011)	-1.3625 (1.3401)	-2.9912*** (1.2623)	-2.2329** (1.1169)	-5.2219*** (0.9718)	-0.1325 (0.3162)	-12.5309*** (1.1351)
Observations	910	835	910	910	835	910	751	676	751
R^2	0.22			0.84			0.81		
Overall R^2		0.24	0.40		0.80	0.88		0.33	0.73

Note: OLS estimates and standard errors in parentheses are based on panel-corrected standard errors (PCSE) with AR (1) correction; fixed-effects with AR (1) correction; and random-effects with AR (1) correction.

*** $p < .01$, ** $p < .05$, * $p < .10$.