Disentangling Country and Firm Level Effects on Firm Equity Ownership and Firm Financial Performance: An Exploratory Empirical Analysis

Mario Krenn

ABSTRACT

This study attempts to disentangle firm and country level effects on firm performance and firm ownership using hierarchical linear modeling. I argue that distinguishing country and firm level effects is complex in that firm level characteristics and strategic decision making are not independent of the national context but are embedded in both the national context and firm level stakeholder pressures. The results suggest greater country level effects for ownership than for performance. This pattern of results is consistent with stronger national level influences on ownership structure than on performance outcomes. This finding may reflect trends toward homogeneity due to the globalization of financial markets. Although I found little evidence that the identity of the largest equity owner influenced performance outcomes, several ownership classes were significant for the equation predicting the size of the largest shareholding.

Keywords: firm performance, firm ownership, national business systems perspective.

I. INTRODUCTION

The globalization of financial markets has generated increased research interest in the factors driving the growth of global investments, and its implications for national economic growth. This study examines the role of firm level and national level variables on firm ownership and performance. Building upon the work of LaPorta and colleagues (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2002; La Porta, Lopez de Silanes, & Shleifer, 1999; La Porta, Lopez de Silanes, & Shleifer, 2006) extant research has examined the role of national level variables on many firm characteristics including performance patterns, capital structure, ownership, and corporate governance (Chui, Lloyd, & Kwok, 2002; Dahya, Dimitrov, & McConnell, 2008; Davis & Marquis, forthcoming; Ding, Hope, Jeanjean, & Stolowy, 2007; Djankov, La Porta, Lopez-de-Silanes, & Shleifer, 2008; Doidge, Andrew Karolyi, & Stulz, 2007; Gleason, Mathur, & Mathur, 2000; La Porta et al., 2002; Park, 1998; Sekely & Collins, 1988). Indeed, several studies in the finance literature (Bushman, Piotroski, & Smith, 2004; Doidge et al., 2007) suggest the dominance of country level effects on corporate governance. However, the theoretical arguments for firm level and country level effects have remained relatively underdeveloped. Departing from an institutional perspective, other studies have focused on stakeholder pressures and resource dependencies as a source of inter-firm variation (Ahmadjian & Robbins, 2005; Davis, 2005; Fiss & Zajac, 2004; Gedajlovic, Yoshikawa, & Hashimoto, 2005).

This study builds upon this body of research by examining country and firm level effects on firm ownership and performance. I argue that distinguishing country and firm level effects is complex in that firm level characteristics and strategic decision making are not independent of the national context but are embedded in both the national context and firm level stakeholder pressures. From a theoretical perspective, both country level and firm level effects can be understood in terms of institutional and stakeholder pressures on the firm. National level characteristics such as investor protections, market characteristics, the legal/regulatory environment, and more ‘macro-environmental’ factors such as economic openness and culture influence business practices and firm characteristics. However, firms also face the expectations of their specific stakeholders. Although these patterns of stakeholder pressures are clearly influenced by the national context, they are not homogeneous. For example, while firm ownership is a firm level variable, it is dependent upon several elements of the national business system (e.g., historical patterns of business development, government policy and regulation, etc.).

II. THE INSTITUTIONAL CONTEXT AND NATIONAL BUSINESS SYSTEMS

Institutional theory suggests that firms are subject to conform to institutional pressures regarding business practices (Buck & Shahrim, 2005; Fiss & Zajac, 2004; Misangyi, Weaver, & Elms, 2008). However, there is increasing realization that the institutional field is complex and multi-faceted, and that firms can face multiple and potentially conflicting institutional pressures (Aguilera & Cuervo-Cazurra, 2004; Durand & McGuire, 2005; Fiss &
Zajac, 2004; Greenwood & Subbay, 2006).

Whitley (1992) uses the term ‘national business system’ to refer to those elements of the national institutional context most relevant to understanding business practices. Elements of the national business system include market organization, the role of the state and regulation, employment practices, and the financial system (Djankov, La Porta, Lopez de Silanes, Florencio, & Botero, 2004; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000; La Porta et al., 2002; La Porta et al., 1999; La Porta et al., 2006). The concept of national business system extends the scope of country level effects beyond the premise that ‘law matters’ to include enforcement, disclosure, and related and supporting institutions. Thus, one source of country level effects would be aspects of the national business system.

The national business system reflects those aspects of the national context most relevant to the conduct of business. However, other aspects of the institutional context have been shown to influence business practices, for example freedom of the press, political freedom, and culture (Djankov et al., 2008; Doidge et al., 2007; Scully, 1988). Research has also identified the level of national economic development as closely related to business system elements: The national business system can promote (or discourage) economic development, which also imposes pressures on the national business system. For example, financial regulation and elements of the financial infrastructure have been found to vary with economic development (Cook & Wallace, 1990; Ding et al., 2007; Ding, Jeanjean, & Stolowy, 2005; Doidge et al., 2007). Further, economic development has been found to influence foreign investment (Chan, Corvig, & Ng, 2005) and stock exchange requirements (Frost, Gordon, & Hayes, 2006).

A second source of pressures toward normative conformity is the firm level network of stakeholder relations and dependencies. While reflecting national-level pressures, these dependencies reflect the firm’s unique history and evolution, and strategic choices. For example, research has shown that firm ownership structure is associated with pressures to conform to the preferences or expectations of powerful ownership blocks (Dahlquist & Robertson, 2001; Douma, George, & Kabir, 2006; Fiss, 2006; Fiss & Zajac, 2004; Yoshikawa, Phan, & Gedajlovic, 2002). For example, foreign ownership pressures have been associated with downsizing (Ahmadjian & Robbins, 2005), adoption of a more ‘North American’ shareholder orientation (Fiss and Zajac, 2004), and performance profiles (Yoshikawa et al., 2002).

As noted earlier, several studies in finance suggest the dominance of country level effects (Bushman et al., 2004; Doidge et al., 2007). However, these studies focused upon financial and performance characteristics of firms such as size and growth rate, rather than indicators of stakeholder pressures such as ownership characteristics.

Finally, there has been a growing realization that culture influences a variety of organizational phenomena. First, culture may have a direct effect on firm characteristics. For example, national culture may influence the development of an ‘equity culture’ that promotes dispersed shareholdings (Licht, 2001), and may influence capital structure, risk, and preferences in strategic decision making (Hennart & Larimo, 1998; Kwok & Tadesse, 2006; Lee & Peterson, 2000; Sekely & Collins, 1988). Second, culture may influence the impact of other national-level variables. For example, protections against self-dealing and the extent of legal enforcement may be less relevant where self-dealing or reliance on legal recourse is incongruent with cultural norms or values.

III. RESEARCH APPROACH

The objective of this research is to explore firm and country level effects on firm attributes. I selected two categories of variables, equity ownership and performance, which prior research has found to be subject to firm and national effects.

Research has documented national level effects on firm performance (Aoki, 1994; La Porta, Lopez de Silanes, Schleifer, & Vishny, 1998; Levine, 1997; Lins & Servaes, 1999). There are numerous possible reasons for these differences. From the perspective of business strategy, nations differ in their resource endowments, industry structure, and competitive dynamics (Porter, 1990). Additionally, patterns of legal regulation, shareholder protection, industrial organization, and economic policy imply national level effects. For example, differences in the priorities given stakeholders such as employees, shareholders, and managers may influence performance objectives (Aguilera & Jackson, 2003). Finally, there is some evidence for cultural effects on performance objectives, capital structure, and risk preferences which may have performance implications (Barr & Glynn, 2004; Chai et al., 2002; Gleason et al., 2000; Jones & Teegen, 2001).

Despite national level trends in variables such as risk taking, capital structure, and investment priorities noted above, there is still considerable heterogeneity among firms in the same national context. There has been considerable recent attention to national level patterns of ownership. A large body of research suggests that the legal protections offered shareholders, and other aspects of the national business system influence firm ownership (Doidge et al., 2007; La Porta et al., 2000; La Porta et al., 1998; La Porta et al., 1999; Pedersen & Thomsen, 1997; Thomsen & Pedersen, 2000). Further, ownership patterns are path dependent and embedded in historical context, as illustrated by the prevalence of inter-corporate and bank shareholdings in Japan or Germany. Finally, there is some evidence that national culture may influence patterns of ownership (Bechchuk & Roe, 1999; Jong & Semenov, 2006; Pedersen & Thomsen, 1997).

Nevertheless, the structure of firm ownership rests upon the decision of investors to invest firms. Therefore, firm specific criteria must also be considered. A detailed discussion of the firm level characteristics relevant to investment decisions and ownership structure are clearly beyond the scope of this analysis.

IV. METHODOLOGY

A. Statistical Methodology
This study attempts to disentangle firm and country level effects on performance and ownership using hierarchical linear modeling. Performance and ownership were selected based upon the considerable literature cited regarding country
and firm level effects. Given the theoretical framework, which posits the nesting of firm level effects within a national context, I used hierarchical linear modeling, which is specifically designed for such analyses (Dansereau, Jeewon, & Yammamrino, 2006; Gavin & Hofmann, 2002; Martin, Cullen, Johnson, & Parboteeah, 2007; Wieseke, Lee, Broderick, Dawson, & van Dick, 2008). Wieseke et al. (2008) suggest that HLM provides a more conservative test of effects, particularly level 1 (firm level) effects.

B. Data Collection

Data were collected on firms in the 40 countries on which director protection and financial data were available from (Djankov et al., 2008) and other sources referenced below: Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Colombia, Ecuador, Denmark, Egypt, Finland, France, Germany, Greece, Hong-Kong, India, Indonesia, Ireland, Israel, Italy, Japan, South Korea, Malaysia, Mexico, Netherlands, New Zealand, Norway, Pakistan, Peru, Portugal, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, UK, and US. Firm level data were collected from the Bureau Van Dyk Osiris database for the year 2013. This time frame was mandated by the time frame of many of the country level variables. All firms on which ownership data were available were used in the sample. To avoid an unbalanced sample, country samples were capped at 200 firms. This cap affected only a small number of countries (for example the US and UK). Sample size was 3600 firms, with some variation due to missing data.

C. Dependent Variables

I used two performance variables, ROA and the market to book ratio (PB Ratio). The ownership variables were the size of the largest shareholding and a dummy variable for foreign largest shareholder. Data on the second largest shareholder was inconsistently reported.

D. Firm Level Independent Variables

Firm Size: Firm size was measured by the log of market capitalization.

Industry: Industry control variables (not reported in the tables) were included in all analyses; Prior performance: Current performance is strongly associated with past levels of performance.

Prior performance was measured by 5-year average ROA in the performance equations. Since investment decisions may be more subject to the effects of current performance, I used one year ROA as the performance indicator in the ownership equations.

Leverage: Leverage was measured by the debt vs. asset ratio.

Identity of the Largest Shareholder: I included dummy variables for whether the largest owner was a bank, insurance company, corporation, government, or family/individual.

E. Country Level Independent Variables

Culture: I used Hofstede’s dimensions of culture: power distance, individualism, uncertainty avoidance, and masculinity/femininity (Hofstede, 2001).

Economic Development: I used the log of per capita GDP and log of national market capitalization as reported by Djankov et al. (2008). Legal protection: I used the revised anti director protection index reported by Djankov et al. (2008). The revised index is more congruent with my sample time frame than the original (1997) index.

Anti-Self-Dealing: I used the anti-self-dealing index developed by Djankov et al. (2008) in the ownership equations. This measure taps the extent to which investors are protected against self-dealing or insider transactions. In contrast to the anti-director protection index, anti-self-dealing is a survey-based index in which attorneys from a major international law firm were asked how a hypothetical inside-dealing would be dealt with under their national legal system. The resulting index assessed the regulation of insider transactions along the dimensions of required approvals, disclosure, the duties of officers, directors, and controlling shareholders, mechanisms for challenging the transaction, the types of legal recourse and penalties.

Ownership Concentration: The degree to which a national context is characterized by ownership concentration influences the liquidity of the market, alternative investment options, and ownership patterns. This data was taken from Djankov et al. (2008).

Economic and Business Freedom: I used three measures of economic freedom developed by the Heritage Foundation: Economic Freedom, Business Freedom, Trade Freedom, and the Property Rights index. Each measure is calculated on a 1-100 scale with 100 indicating maximum freedom. This data was taken from www.heritage.org.

F. Hierarchical Linear Models

Given that the structure of my dataset is multilevel, I follow best-practice examples in the existing literature and use Hierarchical Linear Modeling (HLM) to examine the data. Kreft (1996) suggests that in HLM models, there need to be at least 30 observations per group. In the dataset, the number of firm-level observations for several countries is less than 30. Thus, I re-examine the data without including these countries and find that the results remain qualitatively consistent. Additionally, I re-run my four models without the country with the largest number of firms (i.e., USA) and find that the results remain qualitatively consistent. I used the following models to explore the data:

The Hierarchical Linear Models for the dependent variables ROA and PB Ratio are specified as follows:

The level 1 model is specified as follows:

\[ Y_{ij} = \beta_0 + \beta_1(\text{industry}_{ij}) + \beta_2(\text{firm size}_{ij}) + \beta_3(\text{prior performance}_{ij}) + \beta_4(\text{leverage}_{ij}) + \beta_5(\text{bank}_{ij}) + \beta_6(\text{insurance company}_{ij}) + \beta_7(\text{corporation}_{ij}) + \beta_8(\text{government}_{ij}) + \beta_9(\text{family}_{ij}) + \beta_{10}(\text{foreign}_{ij}) + \beta_{11}(\text{size largest SH}_{ij}) + \epsilon_{ij} \]  

(1)

The continuous variables in equation (1) are group mean centered. \( Y_{ij} \) = ROA (Return on Assets) in Model 1. \( Y_{ij} \) = PBR (Price Book Ratio) in Model 2.

The level 2 equation is specified as follows:

\[ \beta_0 = y_{00} + u_0 \]  

(2)

The country-level control variables are specified as level 2 predictors of the intercept and replace equation (2) with:
\[ \beta_0 = y_{00} + y_{01}(\text{power distance}_i) + y_{02}(\text{individualism}_i) + y_{03}(\text{uncertainty avoidance}_i) + y_{04}(\text{masculinity}_i) + y_{05}(\text{economic development}_i) + y_{06}(\text{investor protection}_i) + y_{07}(\text{ownership concentration}_i) + y_{08}(\text{economic freedom}_i) + y_{09}(\text{business freedom}_i) + y_{10}(\text{trade freedom}_i) + y_{11}(\text{property rights}_i) + u_0 \]

\[ (3) \]

Note that in equation (3), all variables are group mean centered because they are continuous variables.

The Hierarchical Linear Models for the dependent variable sizes of largest shareholder and largest owner as foreign owner are specified as follows:

\[ Y_{ij} = \beta_0 + \beta_1(\text{industry}_i) + \beta_2(\text{firm size}_i) + \beta_3(\text{prior performance}_i) + \beta_4(\text{leverage}_i) + \beta_5(\text{bank}_i) + \beta_6(\text{insurance company}_i) + \beta_7(\text{corporation}_i) + \beta_8(\text{government}_i) + \beta_9(\text{family}_i) + \beta_{10}(\text{pb ratio}_i) + \varepsilon \]

\[ (4) \]

The continuous variables in equation [1] are group mean centered. \( Y_{ij} = \text{Size of the Largest Shareholder in Model 1} \).

\( Y_{ij} = \text{Foreign Owner as Largest Shareholder in Model 2} \).

The level 2 equation remains the same as in model 1 and model 2.

### Table E: Correlation Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 pb ratio</td>
<td>-0.11</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 firm size</td>
<td>0.01</td>
<td>-0.02</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 prior roa</td>
<td>0.77</td>
<td>-0.09</td>
<td>0.05</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 leverage</td>
<td>-0.22</td>
<td>-0.03</td>
<td>0.01</td>
<td>-0.23</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 bank</td>
<td>0.00</td>
<td>0.02</td>
<td>-0.09</td>
<td>-0.02</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 insurance</td>
<td>0.02</td>
<td>0.01</td>
<td>0.04</td>
<td>0.03</td>
<td>-0.01</td>
<td>-0.10</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 corporation</td>
<td>0.00</td>
<td>-0.02</td>
<td>-0.06</td>
<td>0.02</td>
<td>0.05</td>
<td>-0.45</td>
<td>-0.16</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 government</td>
<td>0.02</td>
<td>-0.03</td>
<td>0.02</td>
<td>0.03</td>
<td>-0.01</td>
<td>-0.07</td>
<td>-0.02</td>
<td>-0.11</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>10 family</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.05</td>
<td>0.00</td>
<td>-0.03</td>
<td>-0.21</td>
<td>-0.07</td>
<td>-0.34</td>
<td>-0.05</td>
<td>1.00</td>
</tr>
<tr>
<td>11 foreign</td>
<td>0.05</td>
<td>0.00</td>
<td>-0.02</td>
<td>0.02</td>
<td>-0.01</td>
<td>-0.05</td>
<td>-0.05</td>
<td>0.23</td>
<td>-0.05</td>
<td>-0.18</td>
</tr>
<tr>
<td>12 largest owner</td>
<td>0.06</td>
<td>-0.02</td>
<td>0.01</td>
<td>0.07</td>
<td>0.05</td>
<td>-0.08</td>
<td>-0.10</td>
<td>0.35</td>
<td>0.07</td>
<td>-0.13</td>
</tr>
<tr>
<td>13 power distance</td>
<td>0.10</td>
<td>-0.05</td>
<td>-0.01</td>
<td>0.13</td>
<td>0.04</td>
<td>0.03</td>
<td>0.03</td>
<td>0.05</td>
<td>0.04</td>
<td>0.01</td>
</tr>
<tr>
<td>14 individualism</td>
<td>-0.11</td>
<td>0.04</td>
<td>0.00</td>
<td>-0.14</td>
<td>-0.03</td>
<td>-0.01</td>
<td>0.02</td>
<td>-0.09</td>
<td>-0.02</td>
<td>-0.10</td>
</tr>
<tr>
<td>15 uncertainty avoid</td>
<td>0.03</td>
<td>0.05</td>
<td>0.07</td>
<td>0.06</td>
<td>0.06</td>
<td>0.05</td>
<td>0.00</td>
<td>0.07</td>
<td>-0.01</td>
<td>0.05</td>
</tr>
<tr>
<td>16 masculinity</td>
<td>0.02</td>
<td>0.03</td>
<td>0.11</td>
<td>0.02</td>
<td>-0.04</td>
<td>0.01</td>
<td>0.04</td>
<td>0.01</td>
<td>0.00</td>
<td>-0.05</td>
</tr>
<tr>
<td>17 gdpcapita</td>
<td>-0.07</td>
<td>0.09</td>
<td>-0.06</td>
<td>-0.11</td>
<td>-0.05</td>
<td>0.01</td>
<td>0.03</td>
<td>-0.10</td>
<td>-0.07</td>
<td>-0.01</td>
</tr>
<tr>
<td>18 investor protect</td>
<td>0.04</td>
<td>-0.09</td>
<td>0.00</td>
<td>0.04</td>
<td>0.02</td>
<td>-0.04</td>
<td>0.00</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>19 ownership conc.</td>
<td>0.05</td>
<td>0.02</td>
<td>-0.05</td>
<td>0.06</td>
<td>0.02</td>
<td>0.03</td>
<td>-0.03</td>
<td>0.13</td>
<td>0.05</td>
<td>-0.06</td>
</tr>
<tr>
<td>20 economic free.</td>
<td>-0.09</td>
<td>0.02</td>
<td>0.00</td>
<td>-0.12</td>
<td>-0.06</td>
<td>-0.01</td>
<td>0.01</td>
<td>-0.17</td>
<td>-0.08</td>
<td>0.03</td>
</tr>
<tr>
<td>21 business freedom</td>
<td>-0.08</td>
<td>0.09</td>
<td>0.04</td>
<td>-0.09</td>
<td>-0.06</td>
<td>0.02</td>
<td>0.01</td>
<td>-0.10</td>
<td>-0.12</td>
<td>0.06</td>
</tr>
<tr>
<td>22 trade freedom</td>
<td>-0.07</td>
<td>0.09</td>
<td>-0.04</td>
<td>-0.15</td>
<td>-0.05</td>
<td>-0.05</td>
<td>0.01</td>
<td>-0.15</td>
<td>-0.08</td>
<td>0.03</td>
</tr>
<tr>
<td>23 property rights</td>
<td>-0.11</td>
<td>0.04</td>
<td>0.01</td>
<td>-0.15</td>
<td>-0.05</td>
<td>0.01</td>
<td>0.01</td>
<td>-0.15</td>
<td>-0.08</td>
<td>0.03</td>
</tr>
</tbody>
</table>

### Table E. Cont.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 pb ratio</td>
<td>0.07</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 firm size</td>
<td>0.07</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 prior roa</td>
<td>-0.09</td>
<td>-0.62</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 leverage</td>
<td>0.10</td>
<td>0.26</td>
<td>-0.32</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 bank</td>
<td>-0.04</td>
<td>0.07</td>
<td>0.10</td>
<td>0.22</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 insurance</td>
<td>-0.10</td>
<td>-0.66</td>
<td>0.67</td>
<td>-0.16</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 corporation</td>
<td>-0.07</td>
<td>0.26</td>
<td>-0.23</td>
<td>-0.33</td>
<td>0.10</td>
<td>-0.33</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 government</td>
<td>0.24</td>
<td>0.25</td>
<td>-0.30</td>
<td>0.11</td>
<td>-0.17</td>
<td>-0.42</td>
<td>-0.23</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 family</td>
<td>-0.20</td>
<td>-0.50</td>
<td>0.31</td>
<td>-0.46</td>
<td>0.03</td>
<td>0.49</td>
<td>-0.09</td>
<td>-0.33</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>11 foreign</td>
<td>0.16</td>
<td>-0.47</td>
<td>0.38</td>
<td>-0.56</td>
<td>-0.09</td>
<td>0.48</td>
<td>0.12</td>
<td>-0.21</td>
<td>0.80</td>
<td>1.00</td>
</tr>
<tr>
<td>12 largest owner</td>
<td>-0.08</td>
<td>-0.43</td>
<td>0.33</td>
<td>0.05</td>
<td>-0.01</td>
<td>0.71</td>
<td>-0.31</td>
<td>-0.17</td>
<td>0.59</td>
<td>0.53</td>
</tr>
<tr>
<td>13 power distance</td>
<td>-0.15</td>
<td>-0.67</td>
<td>0.69</td>
<td>-0.37</td>
<td>0.13</td>
<td>0.75</td>
<td>-0.12</td>
<td>0.37</td>
<td>0.77</td>
<td>0.64</td>
</tr>
</tbody>
</table>

### V. Results

Table I presents the correlations for all variables included in the study. The examination of the correlations between explanatory variables and the variance inflation factor analysis suggest that problems associated with multicollinearity do not unduly affect the estimation of the coefficients. Table II presents the HLM results for firm performance and Table III presents the HLM results for ownership. The pattern of results in Table II suggests the dominance of firm level effects on both performance measures. None of the cultural dimensions are significant in either equation. The empirical results only show evidence of limited national level effects. The significant positive coefficient for foreign ownership is consistent with prior results in the literature. However, other ownership variables are generally insignificant. Although the significant negative coefficient for the size of the largest shareholding in the market to book ratio is congruent with entrenchment arguments, it was insignificant in the model for ROA.

The correlations reported in Table I that are greater than 0.04 are significant at p<0.05 (two-tailed test).
might have been expected by entrenchment arguments, ROA showed a positive association with the size of the largest shareholding, while the price to book ratio had a marginally significant negative coefficient.

The results in Table III show again significant country level effects in the model predicting the presence of a foreign largest shareholder. The cultural dimensions of power distance and masculinity, economic development as measured by per capita GDP, trade, property, and economic freedom, and the anti-self-dealing index were significant. Interestingly, however, the trade freedom and economic freedom variables showed a negative coefficient. Classification as a bank/financial organization had a significant positive coefficient. As might be expected, government ownership had a negative coefficient. Individual/family ownership could not be included in the equation due to the extremely small (less than 10) numbers of foreign individual owners. Although ROA was not significant, price/book ratio and market capitalization were significant.

VI. CONCLUSION AND LIMITATIONS

My results suggest greater country level effects for ownership than for performance. This pattern of results is consistent with stronger national level influences on ownership structure than on performance outcomes. Although the single year data make it impossible to test this proposition, the performance data is relatively comprehensive and may reflect trends toward homogeneity due to the globalization of financial markets. Although I found little evidence that the identity of the largest owner influenced performance outcomes, several of the specified ownership classes were significant for the equation predicting the size of the largest shareholding. Finally, I found little evidence of cultural effects on the specified dependent variables.

It is important to note a limitation of this exploratory study. I examined only two indicators of firm performance. Future research may want to expand the examination of firm and national effects to a wider range of outcome variables. Similarly, since data on the second and third largest owners was not consistently reported, I examined only the size and identity of the largest shareholding and the presence of a foreign largest shareholder. An avenue for future research may be to utilize more recent datasets to explore those variables.

ACKNOWLEDGMENT

The author thanks his dissertation chair, the late Prof. Dr. Jean McGuire, for her stimulating discussions and thoughtful advice on corporate governance scholarship and research.

REFERENCES


