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Institutional determinants of domestic and foreign subsidiaries' performance

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ABSTRACT

This article investigates the determinants of subsidiaries' profitability using a unique dataset of more than 23,000 listed and unlisted subsidiaries worldwide over the period 1994–2005. We find that profitable parent companies are able to transfer some of the intangible assets that make them profitable to their subsidiaries. Our results indicate that good institutions (measured by the Worldwide Governance Indicators) are associated with better performance for companies' subsidiaries. When we categorize countries in terms of the origins of their legal systems, we also find that this dimension of institutional quality is generally associated with better performance. Controlling for both legal origins and country governance institutions, we find that both sets of institutions are significantly related to subsidiaries' performance, and that there is an overlap in their explanatory power.

1. Introduction

A great deal of interest has been devoted in recent years to the role of institutions in determining both company and country performance. The inspiration for this research can be traced back to the work of Douglass North (1990) illustrating the importance of institutional quality as a determinant of long-run economic growth in Western countries, and one segment of the literature focuses on the relationship between institutional factors and country growth rates.[1] Other parts examine the relationships between institutional quality and various measures of company performance. Our article adds to this strand of the literature. Because we focus on the performance of subsidiaries, our article is also related to work on the effects of decentralization within firms, the creation of domestic and foreign subsidiaries, and more generally to the literature on foreign direct investment (FDI).

Although there is considerable agreement that good institutions lead to good performance, there is disagreement over how good institutions should be defined, or put differently, authors differ as to *which* institutions are important for determining company performance. One set of studies argues that it is the quality of a country's governmental institutions that is important. Companies perform better in countries with strong property rights enforcement, independent judiciaries, strong contract enforcement, and the like.[2] Another set of studies, precipitated by the work of La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997, 1999, 2000, hereafter, LLSV), emphasizes the importance of a country's *legal* institutions – whether it has a common law or a civil law system – in protecting shareholders and thus reducing agency problems and improving company performance. These hypotheses are not mutually inconsistent, of course. Common law systems may offer both greater shareholder protection and better enforcement of property rights. Indeed, Paul Mahoney (2001) has made just such a claim. In this article, we test the relative explanatory power of both types of institutions.

The existing literature tests for the importance of institutions by relating differences in company performance across countries to differences in institutional structures. Thus, company *A* in country *X* is expected to perform worse by some criterion than company *B* in country *Y*, if *Y*'s institutions are better than *X*'s. The overwhelming conclusion of the literature is that "institutions matter," and good institutions do improve companies' performances. In this article, we examine the relationship between the institutional

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[1] See, Knack and Keefer (1995) and Knack (1996).

[2] See, for example, Besley (1995) and Johnson, McMillan, and Woodruff (2002).

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environment and the performance of *subsidiaries*–companies for which some other company has an ownership stake of fifty percent or more. Our objective is to see whether institutional quality is also related to the performance of subsidiaries, and in particular, when the subsidiary is in a different country, whether it is the institutional quality in the parent firm's country that is correlated with a subsidiary's performance, the institutional quality in the subsidiary's country that is important, or both. One might hypothesize, for example, that a company located in a country with a strong institutional environment performs well not only in its own country, but also transfers this good performance to its subsidiaries, even when they are in countries with weak institutional environments. Alternatively, one might posit that a subsidiary in a country with weak institutions performs like other companies in this country, even if its parent is located in a country with strong institutions. Finally, good performance might be observed only when both a parent and its subsidiary are in countries with strong institutions. In addition to examining these relationships, we seek to identify the institutions with the highest correlations with the performance of subsidiaries.

To investigate the determinants of subsidiaries' performance, we have constructed a unique dataset of more than 23,000 listed and unlisted subsidiaries worldwide over the period 1994–2005. We identify the country of both a subsidiary and its parent, and examine the correlations of subsidiary performance to institutional quality in the countries of both the parent and its subsidiary. Because the sample includes both listed and unlisted companies, it is not possible to use performance measures, like marginal and average *q*s, that require stock market data. We thus are limited to accounting data, and use profits over total assets to measure subsidiary performance.

The FDI literature, especially for developing and transition countries, focuses on performance differences between domestically owned and foreign-owned firms, and usually treats the foreign firms as a homogeneous group.[3] The samples used in these studies typically include detailed information on the foreign subsidiaries, but not on their parents. Our study adds to this literature by examining institutional quality in *both* the parents' and subsidiaries' countries. We shall also attempt to determine *which* governmental institutions have the greatest impact on performance. While most studies use aggregate indexes of institutional quality, we separate legal institutions and various aspects of country governance.

If good institutions lead to higher profits, then one might expect all companies engaging in FDI to locate subsidiaries in countries with good institutions. But competition in these countries for customers, for natural resources, for workers, etc. might then drive down profits making a country with weaker institutions more attractive. To the extent that weak institutions lead to greater risk, subsidiaries in countries with weak institutions might actually exhibit *higher* average profitability along with greater risk. Thus, a simple generalization from *where* companies choose to locate subsidiaries and the profits they earn is not possible.

Briefly, we find that institutional quality in both the parent's and the subsidiary's countries is positively related to subsidiary profits. Significant differences in subsidiaries' performance are also found to exist across countries with different legal origins. Moreover, adding one set of institutional variables to our model, when the other set is already present, detracts from the explanatory power of the first set, suggesting that the two sets of institutional variables are partially capturing the same phenomena.

In the next section, we turn to a more explicit statement of our hypotheses. Section 3 describes data and methodology. Section 4 discusses basic results. The last section outlines the main conclusions.

2. Hypotheses

Companies with high profits typically have some asset or set of assets that account for these profits – a patent, brand image, organizational structure. It is reasonable to expect that a subsidiary of a company benefits from the possession of such assets as does the parent. FDI, for example, may occur to exploit in a foreign market, a competitive advantage a company has in a domestic market. Recent theoretical work predicts that more productive firms choose FDI over exports into foreign markets (Helpman, Melitz, & Yeaple, 2004). Many researchers use John Dunning's three conditions for a firm to undertake FDI: ownership, location, and internalization (also known as the OLI framework).[4] Ownership advantages of multinational enterprises (MNEs) are created by their firm-specific, proprietary or knowledge-based assets. Location advantages consist of profitable investment opportunities in foreign countries based on factors such as tariffs, quotas, transport costs, low factor prices, and access to customers. Internalization advantages arise when production in dispersed plants under common ownership generates lower costs than production organized at arm's length through markets.[5] Both the *O* and the *I* of the OLI approach imply a positive association between a parent's and a subsidiary's profits.

Hypothesis 1. A subsidiary's profits are positively related to the profits of its parent.

Numerous studies have established a relationship between the quality of a country's political and economic institutions and its growth rate or GDP per capita.[6] Institutions, which reduce corruption, can, for example, lead to greater trust and thereby faster growth.[7] As a broad proxy for country institutional quality, several studies have used indicators computed by Kaufmann, Kraay, and Mastruzzi (2008) as part of the Worldwide Governance Indicators (WGIs) project.[8] The authors compute six different dimensions of institutional quality: voice and accountability, government effectiveness, rule of law, regulatory quality, absence of corruption and political stability.[9] Our investigation of these institutions, reported below, reveals that subsidiary performance is only weakly related to the WGI measure of political stability. We thus construct an aggregate index of institutional quality by averaging the remaining five WGI indicators. The results are nearly identical, however, if we use all six indexes. High quality governance institutions in a country should increase company profitability by reducing the transaction costs of writing and enforcing contracts, of obtaining licenses and permits, and more generally of conforming to the laws and regulations of the country. We thus expect:

Hypothesis 2. A subsidiary's profits are higher in a country with high quality governance indicators.

[3] See, for example, a survey of privatization studies on developed, developing and transition countries (Meggison & Netter, 2001) and a survey of enterprise restructuring in transition countries (Djankov & Murrel, 2002).

[4] See Dunning (2000) and Dunning and Lundan (2008). See, also, the survey by Caves (1996).

[5] Markusen (1995) presents six arguments why foreign direct investment occurs instead of licensing.

[6] For economic growth see, Knack and Keefer (1995), Knack (1996), De Haan and Siermann (1998), Wu and Davis (1999), and the survey by De Haan, Susanna, and Sturm (2006). Acemoglu and Johnson (2005) find institutional quality associated with higher GDP per capita in developing countries.

[7] See, Knack and Keefer (1997).

[8] Other measures of institutional quality have been constructed by Freedom House, the Heritage Foundation, the Business Environment Risk Intelligence (BERI), Gallup International, and the International Country Risk Guide (ICRG) compiled by the Political Risk Services group. There is considerable overlap across these various indexes.

[9] By using the WGI measures researchers avoid having to choose among the different, but highly correlated, variables provided by various institutions.