ELSEVIER



## Journal of Empirical Finance



journal homepage: www.elsevier.com/locate/jempfin

### 

William H. Greene<sup>a</sup>, Abigail S. Hornstein<sup>b</sup>, Lawrence J. White<sup>a,\*</sup>

<sup>a</sup> Stern School of Business, New York University, 44 West 4th Street, New York, NY 10012, United States <sup>b</sup> Wesleyan University, 238 Church Street, Middletown, CT 06459, United States

#### ARTICLE INFO

Article history: Received 17 July 2008 Received in revised form 28 June 2009 Accepted 15 July 2009 Available online 23 July 2009

JEL classification: F23 G31

Keywords: Capital budgeting Marginal q Multinational enterprises

#### 1. Introduction

#### ABSTRACT

With U.S. multinational enterprises playing increasingly important roles in the global economy, it is important to understand the efficiency of their capital budgeting decisions. We examine an unbalanced panel of 332 U.S. firms from 1992–2000. Using the deviation of a firm's estimated *marginal* Tobin's *q* from a benchmark as an indicator of effective resource allocation, we find that widespread multinationals make more efficient capital budgeting decisions. We also test whether this reflects the MNEs' investment locations, but do not obtain support for the hypotheses that they might be monitored by more agents or more successfully resist pressures from interest groups and governments.

© 2009 Elsevier B.V. All rights reserved.

Multinational firms have become an important conduit in the global allocation of investment funds. The United States has consistently been the single largest source of outward FDI flows, generating about one-fifth of total global outward FDI flows in recent years (UNCTAD, 2006). In the 1990s global FDI grew rapidly (from US\$233 bn in 1990 to US\$1379 bn in 2000), and the total stock of U.S. direct investment abroad nearly tripled (from \$2.2 trillion in 1990 to \$6.3 trillion in 2000) as American multinational enterprises (MNEs) generated an increasingly large share of world GDP (6.8% in 1994 and 8.6% in 2000) (Mataloni, 2002; Mataloni and Yorgason, 2002).

Feldstein (1995) argued that FDI circumvents segmented national capital markets. Inflows of foreign capital, including FDI, are associated with improvements in the capital market efficiency of the host countries (e.g., Bekaert and Harvey, 2000; Henry, 2000a, b; Morck et al., 2000a,b; Rajan and Zingales, 2003; Li et al., 2004). With U.S. MNEs playing an increasingly large and important role in the global economy, it is important to understand if these firms are able to allocate capital efficiently. Accordingly, we investigate whether U.S.-headquartered MNEs and purely domestic U.S. enterprises (PDEs) differ significantly in the efficiency of their capital budgeting decisions.

We use the deviation of marginal Tobin's *q*, which is the ratio of the marginal change in market value to the unexpected marginal change in assets, from the appropriate benchmark as an indicator of the quality of a firm's capital budgeting decisions. For

<sup>\*</sup> We thank Bernard Yeung, Thomas Pugel, Heski Bar-Isaac, Minyuan Zhao, David Ross, Bruce Blonigen, seminar participants at Brandeis University, New York University, Wesleyan University, University of South Carolina, CCC, International Industrial Organization Conference, Western Economic Association, Academy of Management, Financial Management Association, Harvard International Business Conference, and American Economic Association, and two anonymous referees for helpful comments. All errors remain our own.

<sup>\*</sup> Corresponding author. Tel.: +1 212 998 0880; fax: +1 212 995 4218.

E-mail addresses: wgreene@Stern.nyu.edu (W.H. Greene), ahornstein@wesleyan.edu (A.S. Hornstein), lwhite@stern.nyu.edu (L.J. White).

<sup>0927-5398/\$ –</sup> see front matter 0 2009 Elsevier B.V. All rights reserved. doi:10.1016/j.jempfin.2009.07.004

example, if the theoretical benchmark marginal q is 1.0, firms with estimated marginal q's above (below) this level can be classified as under-(over-) investing. This two-stage economic methodology was developed by Durnev et al. (2004).

We improve this methodology in two ways. First, we use a random coefficients methodology to estimate marginal q (instead of OLS as in Durnev et al. (2004)) to incorporate explicitly firm heterogeneity. Second, in a second-stage regression, marginal q, an estimated coefficient, is used in modified form as a dependent variable to analyze the relationship between the efficacy of the firm's capital budgeting decisions and multinationality after controlling for other firm characteristics. In this second stage, we correct for potential heteroscedasticity by using a weighted generalized least squares methodology (e.g., Saxonhouse, 1976) instead of a general White correction for heteroscedasticity as in Durnev et al. (2004). Moreover, in our second-stage analysis we estimate the benchmark marginal q for MNEs and PDEs, and then use the difference between the estimated firm-specific marginal q's and the benchmark marginal q's to form the dependent variable.

We examine whether effective capital budgeting is associated with a firm's multinationality, firm characteristics such as corporate governance, or characteristics of the countries in which the firm invests. Our sample is an unbalanced panel dataset of 332 U.S. manufacturing firms from 1992–2000 for which we have reliable data as to their multinational presence. Manufacturing industries represent the bulk of U.S. FDI — both in terms of the dollar stock of outstanding FDI and in terms of new FDI made in the 1990s (Mataloni, 2002; Mataloni and Yorgason, 2002). Within our sample, as has been observed repeatedly in many other empirical studies, MNEs and PDEs differ markedly. Consistent with the international business literature, we find that MNEs are larger, invest more in research and development, are more diversified, and that MNEs and PDEs differ significantly with regards to measures of internal corporate governance.

MNEs inherently differ from PDEs in that they have operations in multiple countries. We therefore examine the relationship between a company's capital budgeting decisions and the protection of creditors' rights in the countries where it locates. The presumption is that financial communities in these locations augment home financial communities' monitoring. Also, for U.S. MNEs, investing in less developed countries could raise their bargaining power against special interest groups, including the local governments. However, we find no support for the monitoring or bargaining hypotheses.

The most important finding is that more effective capital budgeting is positively associated with multinationality even after controlling for the influences just described, and this effect is most pronounced for firms that are present in ten or more foreign countries. Moreover, this result appears to reflect greater restraints on over-investment and not reduced liquidity constraints that may reflect MNEs' being able to access multiple capital markets. Thus, we conclude that MNEs may well be intrinsically more capable at making firm value-enhancing capital budgeting decisions. We are unable to comment on whether capital budgeting efficiency causes multinationality or vice versa; rather, we simply investigate whether capital budgeting efficiency and multinationality are associated with one another, and we find that they are indeed significantly related.

In Section 2 we delineate the theoretical rationale for why MNEs and PDEs might differ in their ability to invest effectively. Section 3 introduces the method for measuring investment efficiency. The data are described in Section 4. Section 5 presents and analyzes the results from empirical testing, and their implications. Section 6 concludes.

#### 2. Theoretical motivation

MNEs might differ systematically from PDEs in terms of the effectiveness of their capital budgeting decisions. Some of these differences could be a function of firm characteristics (e.g., firm size), yet much of this difference may simply be a function of the firm's multinationality itself. A MNE is present in at least two distinct operating environments (e.g., the U.S. and China), and this may expose the MNE to more diverse challenges. Theoretically, it is unclear whether MNEs should be expected to make more or less effective capital budgeting decisions than would PDEs.

#### 2.1. MNEs may have better management

To use capital effectively a firm needs capable, competent managers to collect and digest information efficiently, delegate responsibilities, evaluate performance, etc. The international business literature suggests that a firm becomes multinational because it has greater management capabilities (e.g., Buckley and Casson, 1976). Another possibility is that MNEs, compared to PDEs, may have better management capability simply because their sheer size and job diversity enable them to attract and retain more capable managers. *Ceteris paribus*, larger firms pay higher salaries (Brown and Medoff, 1989), and the higher compensation attracts higher quality workers and better aligns employer and employee interests. Alternatively, MNEs are able to offer skilled employees a wider array of growth opportunities. For all of these reasons, MNEs may be able to recruit and retain higher quality staff.

#### 2.2. Agency and information asymmetry and corporate governance

#### 2.2.1. Agency and information asymmetry

The above arguments notwithstanding, the complexity of a multinational corporate structure could overwhelm management. The complexity might also create room for managers to pursue agency behavior. For example, managers could deliberately misinvest in order to entrench themselves (Shleifer and Vishny, 1989), over-invest for empire building (Jensen, 1986), including wasteful multinational expansions (Morck and Yeung, 1992), or be excessively risk-averse to protect personal interests (John et al.,

# دريافت فورى 🛶 متن كامل مقاله

- امکان دانلود نسخه تمام متن مقالات انگلیسی
  امکان دانلود نسخه ترجمه شده مقالات
  پذیرش سفارش ترجمه تخصصی
  امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
  امکان دانلود رایگان ۲ صفحه اول هر مقاله
  امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
  دانلود فوری مقاله پس از پرداخت آنلاین
  پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات
- ISIArticles مرجع مقالات تخصصی ایران