Journal of Corporate Finance 30 (2015) 65–84

Contents lists available at ScienceDirect

Journal of Corporate Finance

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

Multinationality and opaqueness☆

Tom Aabo [a,1], Christos Pantzalis [b,2], Jung Chul Park [c,*]

[a] Department of Economics and Business, School of Business and Social Sciences, Fuglesangs Allé 4, 8210 Aarhus V, Denmark
[b] Department of Finance, College of Business, BSN 3403, University of South Florida, Tampa, FL 33620, USA
[c] Department of Finance, Harbert College of Business, 303 Lowder Hall, Auburn University, Auburn, AL 36849, USA

ARTICLE INFO

Article history:
Received 24 May 2014
Received in revised form 5 December 2014
Accepted 7 December 2014
Available online 12 December 2014

JEL classification:
F23
G14
G30

Keywords:
Multiple regression analysis
Internationalization theory
Stock market valuation
Stock prices
Multinationality
Opaqueness

ABSTRACT

We investigate whether and how multinationality affects the opaqueness of the firm. We use multiple alternative measurements of multinationality and opaqueness. Spanning nearly three decades for a large sample of US non-financial firms, we find a statistically and economically significant, positive relationship between multinationality and opaqueness. We find that this positive relationship hinges on whether or not the degree of foreign involvement is compatible with the structure of the firm's foreign operations network. Our results imply that multinationality's impact on opaqueness is alleviated when there is harmony between the size of foreign involvement and the extent of the MNC network's geographic dispersion. Previous literature has implicitly assumed a simple, positive relationship. This is the first study to explicitly address the question in a comprehensive manner.

1. Introduction

Does a firm's multinationality, i.e. its degree of foreign involvement and the structure of its foreign operations network, have an impact on its investors' information environment? The quality of outside investors' information environment should be of great concern to firms because it is argued to affect their cost of capital (Barron et al., 2012; Easley and O'Hara, 2004; Francis et al., 2008; and Hughes et al., 2007), their investment policies (Durnev and Mangen, 2009; Durnev et al., 2004; Shroff et al., 2014), and their capital structure-related decisions (Myers, 1984; Myers and Majluf, 1984; Shyam-Sunder and Myers, 1999). However, in spite of the information environment's importance, its link to multinational corporations' (hereafter, MNCs) geographic expansion has never been directly and thoroughly addressed in the literature. There are many past studies that have either relied on the implicit assumption that internationalization and opaqueness are positively correlated or provided evidence that can be interpreted through the lens of such a link. Moreover, there are just few papers (e.g., Duru and Reeb, 2002; Lewis, 2011; Rivera, 1991) that have employed a single (out of

☆ We are especially grateful to the editor (Jeffry Netter) and an anonymous referee for their many insightful and constructive suggestions. We appreciate helpful comments from participants at the 2009 Financial Management Association Annual Meeting and the 2009 Financial Management Association European Conference.
* Corresponding author. Tel.: +1 334 844 3003; fax: +1 334 844 4960.
E-mail addresses: taa@asb.dk (T. Aabo), cpantzal@usf.edu (C. Pantzalis), jzp0023@auburn.edu (J.C. Park).
[1] Tel./fax: +45 8616 5394.
[2] Tel.: +1 813 974 3262; fax: +1 813 974 3084.

http://dx.doi.org/10.1016/j.jcorpfin.2014.12.002
0929-1199/

several) measure of opaqueness in an empirical investigation of multinationality and the evidence they provide is not adequate to draw firm conclusions.[3] We fill this void and provide a comprehensive examination of the question using a large sample of US non-financial firms spanning 28 years and employing several proxies for the quality of the firm's information environment from its investors' perspective, as well as several measures accounting for different dimensions of multinationality.

This study casts two main research questions. First, we examine whether the degree of foreign involvement and network structure dimensions of multinationality and opaqueness are positively related. Second, we determine which aspects of multinationality are driving the positive relationship. More specifically, (1) we confirm a positive relationship between multinationality and opaqueness; (2) we show that this positive relationship holds for alternative dimensions of multinationality and is robust to the use of several measures of opaqueness; (3) we control for endogeneity and show that multinationality is likely to cause opaqueness; (4) we quantify the relationship between multinationality and opaqueness and show that the effect from multinationality on opaqueness is substantial not only in a statistical sense but also in an economic sense, and (5) we provide evidence consistent with the notion that there is an optimal combination of degree of foreign involvement and geographic operations network structure that minimizes the adverse effects of multinationality on firms' information environment.

Multinationality entails corporate expansion across different geographic areas and encounters with a multitude of economic, political and cultural environments. Consequently the success of corporate international diversification hinges on the parent firm's ability to manage much wider spectrums of growth opportunities and risk than otherwise similar domestic firms. It is therefore not surprising that multinational corporations' complex operations and organizational structures that often stretch over vast distances and span diverse cultures are perceived to be less transparent than those of their domestic peers. The literature contains many examples of the effects of information frictions within and around MNCs' complex organizational structure.[4] Consistent with past studies' evidence that information asymmetry is especially severe for foreign operations (e.g., Callen et al., 2005; Duru and Reeb, 2002; Hope and Thomas, 2008; Hope et al., 2009; and Khurana et al., 2003), MNCs have been shown to suffer from greater agency conflicts (e.g., Doukas and Pantzalis, 2003). Moreover, the resolution of informational asymmetries via external mechanisms such as analyst coverage (e.g., see Kim and Pantzalis, 2003) is much harder in the case of geographically diversified firms. Bodnar and Weintrop (1997) and Thomas (1999) document that foreign earnings are more persistent than are domestic earnings and raise the possibility that this can happen because of poor disclosure of foreign operations (White et al., 2003). Finally, there is also recent evidence that information diffusion into stock prices is slower in the case of MNCs, especially those that are smaller, more opaque and with more geographic segments (Huang, 2012). In sum, there is a considerable body of evidence implying that MNCs are associated with severe information frictions. Yet to our knowledge, there is no study that provides comprehensive evidence on the relationship between opaqueness and the dimensions of multinationality, i.e. the degree of foreign involvement and the structure of a firm's foreign operations network.

In addition to tackling the issue of measuring multinationality, such an investigation would require properly accounting for the different components of investors' information environment by employing several measures of opaqueness. Specifically, we create opaqueness measures from three different sources: 1) stock price informativeness (i.e. the ability of current stock returns in tracking future earnings); 2) analyst forecast quality (i.e. the ability of analysts in forecasting future earnings); and 3) idiosyncratic risk (i.e. the idiosyncratic component of the volatility of stock returns). Our study fills a void in the literature because it is designed to directly address the relationship between foreign corporate expansion and all different dimensions of investors' information environment. Outside investors are often either left in the dark about the specifics of MNCs' foreign country operations or unable to easily assess foreign activities' impact on firm valuation. We hypothesize that investors' information environment deteriorates with the degree of foreign involvement and when firms' international operations network is spread out over many locations and spans many distant cultures. In addition, we hypothesize that different combinations of the two aforementioned dimensions of multinationality can have a distinct impact on opaqueness.

Our results provide strong support for these hypotheses. For a comprehensive sample of US (domestic and multinational) firms spanning almost three decades, we show that alternative measures of the degree of foreign involvement based on foreign sales, and foreign income are associated with lower stock price informativeness, inferior analyst forecast quality, and lower idiosyncratic volatility. The magnitude of the relationships is economically significant. For example, an increase in foreign sales ratio from the median level of 17% to 50% results in a decrease in stock price informativeness of 45% and a decrease in analyst forecast quality of 29%. We also recognize that a potential limitation of the testing procedure in the main regressions is that the relationship between measures of multinationality and opaqueness could be endogenous. We control for endogeneity of the diversification decision in two ways, using the two-stage instrumental variable (IV) approach as well as Heckman's (1979) self-selection correction model. Our tests that account

[3] The only measure of opaqueness whose relationship to multinationality has been investigated in the literature is analyst forecast accuracy. The evidence with respect to this measure is scant and the conclusions drawn are fairly mixed. Rivera (1991) utilizes a fairly small sample of about 150 firms over a 4-year period (1983–1986) and performs comparisons between MNCs and domestic firm analyst forecast errors based only on univariate tests. He concludes that multinationality is associated with greater forecast accuracy and attributes this to a portfolio effect. On the other hand, Duru and Reeb (2002) reach diametrically opposite conclusions from their study based on a sample of 3495 firm-year observations for the period 1995–1998. They find that multinationals are associated with greater analyst optimistic bias and forecast inaccuracy. Herrmann et al. (2008) show that the association between internationalization and optimistic bias diminishes after Regulation Fair Disclosure (Reg FD).

[4] There is a long list of papers that focus on how cross-border frictions, such as geo-political and cultural differences, increase information asymmetry between parents and their subsidiaries. As a result, the cost of monitoring within MNCs increases (e.g., Roth and O'Donnell, 1996) and MNCs often respond by adjusting their ownership structure, compensation contracts, and organizational design (Antras et al., 2009; Desai et al., 2004; Siegel and Larson, 2009). However, according to Shroff et al. (2014) the external information environment can also help headquarters to monitor their foreign affiliates' decisions and to manage information frictions within the firm.