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The role of leverage in cross-border mergers and acquisitions☆

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A B S T R A C T

We examine the relationship between leverage and cross-border mergers and acquisitions. Using a sample of 85,560 cross-border mergers and acquisitions in 57 countries over the period 1990 to 2010, we find that firms with higher leverage are less likely to acquire foreign targets, whereas firms with lower leverage tend to be targets acquired by foreign firms. These effects are more pronounced in Asian countries than North America. Acquisition premium, the likelihood of all-cash offer and the percentage of cash in the acquisition offer decrease with leverage in cross-border mergers and acquisitions. Foreign targets gain positive abnormal returns in the both short run and long run, while acquirers earn positive abnormal returns in the short-run, but negative returns in the long run. We also find that firms adjust their capital structure after the acquisition by issuing more equity if they were overleveraged, or issuing more debt if they were underleveraged before the acquisition. Our results provide international evidence on how leverage affects managerial decision to acquire foreign targets, payment method and acquisition premium in cross-border mergers and acquisitions. This study shows that the interdependent relationship between investment decision and financing decision exists worldwide.

1. Introduction

Cross-border mergers and acquisitions (M&As) have rapidly developed since 1990s and the number has increased from 23% in 1998 to 45% in 2007 (Erel, Liao, & Weisbach, 2012). These activities bring the changes in organizations and controls of economic activity around the world (Faccio & Masulis, 2005). Compared to domestic M&As, cross-border M&As associate with more challenges since domestic acquirers are relatively unfamiliar with institutions and cultural values of foreign countries. Firms need to adapt to different accounting practices and disclosure requirements in foreign countries when they acquire foreign targets. Additionally, Faccio and Masulis (2005) examine the choice of payment method in European M&As. They report that foreign target firms prefer cash payment to stock payment, which leads to a limitation of payment options for domestic acquiring firms. As a result, financing abilities could play an important role in making investment decisions and payment methods in the context of cross-border M&As.

According to the irrelevant capital structure of Modigliani and Miller (1958), firms' investments and financing decisions are independent to the level of leverage in a perfect capital market. Corporations can finance all projects with positive net present value without restrictions. However, in the presence of financing frictions, such as taxes, agency costs, information asymmetry, and cost of

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financial distress, the assumption of perfect capital structure cannot be held. If firms are over leveraged, it will be difficult for them to raise further debt. In particular, financing frictions limit the ability of over-leveraged firms to acquire targets in aggressively bidding acquisitions or hostile takeovers (Uysal, 2011). Since there are constraints on issuing further debt for over-leveraged acquirers, leverage deficit may not only affect the likelihood and completion of M&As, but also reduce the cash component and percentage of acquisition offers in the payment method and decrease the acquisition premium, as well as deteriorate the returns and performance of M&As.

This paper examines the relationship between leverage and cross-border merger and acquisition activities. In previous studies, the examinations on the determinants of cross-border mergers and acquisitions are mainly focused on the aggregate or country factors, such as taxation advantage (Manchin, 2004), favorable foreign government policy (Harris & Ravenscraft, 1991), credit and market expansion (Gonzalez, Vasconcellos, Kish, & Kramer, 1997), exchange rate appreciation (Erel et al., 2012; Vasconcellos, Madura, & Kish, 1990), low geographical distance, or similar cultural background (Erel et al., 2012; Uysal, et al., 2008). The understanding of the effect of leverage on merger and acquisition activities is only limited to domestic countries. This study fills the gap to provide international evidence on whether and how leverage or leverage deficit affects bidding firms to acquire foreign targets overseas.

Using a sample of 57 countries with over 85,000 acquisitions between 1990 and 2010, we find that leverage plays an important role in cross-border M&As in different countries. Companies with higher leverage are more likely becoming targets rather than acquirers. Acquirers with more debt are more likely to pay lower premiums in cross-border deals, and they prefer to use more stock in such deals. Leverage deficit also exert influence on acquirers' capital structure after cross-border deals. Over-leveraged acquirers tend to finance themselves after the deals by selling more equities in stock markets, whereas under-leveraged acquirers are more likely to increase their leverage after the deals. These findings are consistent with the studies by Leary and Roberts (2005) and Frank and Goyal (2009) and provide potential explanations for why overleveraged firms adjust their debt ratios more quickly than underleveraged firms.

We also find that cross-border M&As affect the value of shareholders of acquirers and target companies in different ways. Acquirers usually have positive short-term abnormal returns, but have negative long-term abnormal returns, especially for firms with higher leverage. However, target companies have positive abnormal returns in both short-run and long-run. We further find that acquirers can benefit from higher leverage when undertaking cross-border M&As, as the level of leverage is positively associated with the short-run abnormal returns after the deals. As such, our findings suggest that managers from companies with higher leverage can choose to launch cross-border M&As to create value for shareholders in the short run. Nevertheless, in the long run, cross-border mergers and acquisitions generate more wealth for target firms, and may create risk for acquirers if they borrow heavily during the acquisitions.

This study provides many contributions to the literature. First, it shows international evidence on the fact that overleverage is an impediment for acquiring firms to pursuing acquisition opportunities overseas and firms with lower leverage are more attractive to foreign acquirers. Second, our results suggest that firms with higher leverage are more likely to engage in value-enhancing acquisitions in foreign countries. However, overleveraged firms induce risk in the long run due to the aggressive bidding and borrowing through cross-border M&As with the presence of financial frictions. Third, this study shows that firms' capital structure changes with the nature of investment opportunities and explains why overleveraged firms have a tendency to adjust their debt to asset ratio more quickly relative to underleveraged firms. In particular, bidding firms with higher leverage are more likely to issue equities after they acquired foreign targets and bidding firms with lower leverage tend to issue more debt in the post-cross-border M&As. This implies that target firms in foreign countries usually have lower debt ratio or higher financing abilities. Fourth, this paper sheds light on the international and interdependent relationship between investment decisions and financing decisions. With the significantly increasing trend of cross-border M&As and globalizations, these international evidence is particularly important compared to the evidence only in the domestic market. Furthermore, using international data is also helpful to exploit the variation in capital structure adjustment of acquirers from different regions.

This paper is organized as follows. Section 2 provides literature review and hypothesis development. Section 3 illustrates sample selection and estimation procedure of target leverage ratio. Section 4 examines and discusses empirical results. Section 5 concludes above remarks.

2. Literature review and hypothesis development

In recent years, as countries become more globalized, cross-border mergers and acquisitions have become more popular and widespread. In 2011, flows in global FDI are estimated at $1.5 trillion and $526 billion of the flows are cross-border M&As (UNCTAD, 2012). The development of operating cross-border M&As has led to an increase in profound studies in the field, such as, culture integration (Slangen, 2006), performance and returns of cross-border M&As (Bertrand & Zitouna, 2008), payment method of cross-border M&As (Dutta, Saadi, & Zhu, 2013), determinants of target selection in cross-border M&As (Bae, Chang, & Kim, 2013).

There are many common motives for firms to engage in cross-border M&As. Gonzalez et al. (1997) examine 533 multinational corporations in the U.S. between 1981 and 1998. They report that one of the most important reasons for U.S. firms to acquire foreign targets overseas is to access a new market. Erel et al. (2012) find that domestic firms are more likely to become targets when the domestic currency is depreciated. In addition, overcoming adverse government policy is another unique motive for cross-border M&As. Harris and Ravenscraft (1991) report that due to prohibitive tariffs and import restrictions in the U.S., foreign importers start to bid U.S. manufacturing capacities. Amortization of goodwill against earnings also attracts foreign firms to bid for U.S. firms. Furthermore, acquiring firms prefer to bid targets in the country where has better tax policies or treatments (Manchin, 2004). Erel et al. (2012) demonstrate an increase in cross-border mergers and acquisitions as a result of high trade between two countries, or