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# Open-market purchases of public equity by private equity investors: Size and home-bias effects[☆]

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ABSTRACT

This paper analyses 689 open-market purchases of public equity by private equity investors (PEIs) between 1999 and 2008. On average, we find a positive market reaction to the public announcement of such purchases in both the short and long term. Based on the long-term event study approach of Mitchell and Stafford (2000), we also found that a portfolio of stocks bought by private equity investors achieves a yearly alpha of between 8.5% and 13.5%. In general, the short-term alphas and the long-term alphas are more pronounced when private equity investors buy a listed stock of their home country than when they invest abroad. This justifies a home bias in private equity investments. We also found that investment in small capitalized stocks produces higher excess returns than an investment in large stocks. The abnormal returns are lower for longer time periods, but they are significant in the short-term and over a 1-year horizon. Thus, we find evidence for a size effect in private equity investments.



## 1. Introduction

Over the last few years, PEIs have increasingly sought to invest in companies that are listed on a stock exchange. Typically, PEIs invest by buying a block of the company's shares through an exchange

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(i.e., an open-market purchase). This is the form of private equity investment investigated in this paper. Alternatively, PEIs can participate in a PIPE deal (private investments in public equity), which involves the selling of common shares or some form of preferred stock to private investors in a non-open-market deal (e.g., equity issue), of which private equity companies form one group. The empirical findings on PIPE deals are discussed below. As Sjostrom (2007) outlines, PIPEs have become an important source of financing for many public companies. From 1996 to 2006, US companies closed on 9368 PIPE deals, raising approximately $150 billion in the aggregate.[3] Even though corporations of all sizes have used PIPEs to raise capital, PIPE deals have become a vital financing source for small public companies, for which this form of capital often represents the only financing option.[4]

To increase the value of a target company, some PEIs try to bring more managerial discipline to the target company (Cotter & Peck, 2001; Wright & Robbie, 1998), or they try to change the company's strategy. Thus, private equity investment is often associated with shareholder activism (Bethel, Liebeskind, & Opler, 1998). Shareholder activism and the strategies of PEIs can then be justified with the following theoretical arguments, as put forward by Jensen and Meckling (1976); a closer monitoring of the management of the target company could increase valuations because it reduces the possible conflicts between management and shareholders. For example, a PEI can achieve closer monitoring by changing the composition of the board to include a member that reports to the PEI. With its own board member, a PEI can obtain private information on the company's operations. Using this information, a PEI can then influence the target company to pursue policies that will increase its value. The question arises, whether the activities of PEIs are truly successful in increasing the value of the target firm. The literature does provide some evidence that block-purchases and shareholder activism do increase the general value of a company (e.g., Akhigbe, Madura, & Tucker, 1997; Barclay & Horlderness, 1991; Croci, 2007; Holderness & Sheehan, 1985).

A related line of literature analyses PIPE deals to see whether the announcement of a PIPE (and the discounts at which equity is issued to private investors) is related to the reaction of the stock price. Often, private placements of equity are associated with positive abnormal returns, which can be explained by several factors. Wruck (1989), for instance, finds positive announcement-period abnormal returns averaging 4.4%. He argues that the change in firm value at the announcement of a private sale is related to the resulting change in ownership concentration, i.e., the block-holders can use their votes to see that corporate resources are managed more efficiently, among other things. In addition to the ownership structure effect and the expected benefit of increased monitoring, Hertzel and Smith (1993) provide evidence that private placement discounts and positive stock-price reactions also reflect the resolution of asymmetric information about firm value. In particular, abnormal returns reflect favorable information about firm value. Depending on firm size, the relative importance of both effects differs.

Wu (2004) also investigates the impact of information asymmetry and the monitoring of managers on the choice between public offerings and private placements. His findings do not support the view that private placements result in enhanced monitoring of the management. Instead, they are motivated by managerial objectives. In a further study, Hertzel, Lemmon, Linck, and Rees (2002) investigate the stock-price performance of publicly traded firms conducting private equity issues. In particular, they find that positive announcement-period returns are followed by abnormally low post-announcement price performance for the stock over a 3-year period following the offering. Hertzel et al. (2002) argue that this evidence could indicate managerial over optimism and the failure of the investors to recognize such. Following their arguments, their findings are inconsistent with the under reaction hypothesis. Instead, their findings support the windows of opportunity framework, where firms sell equity at the highest possible price to private investors.

However, although the literature does provide some empirical evidence describing the effects that PIPE deals have on listed equity, more research is needed in this field in order to better understand the underlying mechanism. Our study provides additional and more recent evidence on the impact that private equity investments have on listed equity. In addition, we focus on a specific type of invest-

[3] See Sagient Research Systems, Inc., Placement Tracker, Private Placement Resources.

[4] See also Chaplinsky and Haushalter (2006).