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# A reverse takeover as an exit strategy of venture capital: Korean evidence

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ABSTRACT

We investigate the characteristics of firms that choose between three different methods, IPOs, sellouts, or reverse takeovers, to obtain exchange listings using Korean data over the period of 2000–2010. We document that VC-backed firms tend to choose reverse takeovers rather than IPOs or sellouts to go public after controlling for other determinants. We also find that VC-backed reverse takeover firms have higher leverage, lower profitability, and higher information asymmetry than VC-backed IPO firms. The results suggest that venture capital uses a reverse takeover as an alternative exit method from their portfolio firms since reverse takeovers constitute a fast and low-cost going-public mechanism. We then find that reverse takeover firms perform worse than IPO firms over the long term regardless of whether they are VC-backed or not.



## 1. Introduction

Entrepreneurs and venture capitalists can exit fully or partially from their investments in private firms by a desire to satisfy their liquidity demands or by the need to raise capital in either of two main ways: initial public offerings (IPOs) or selling the firm to another company. In an IPO, they sell off a portion of their outstanding equity, but the entrepreneur retains significant ownership and control of the firm even after the IPO. In a takeover by a publicly-traded acquirer (sellout), they sell the private firm to an acquirer, in which case they divest most of their equity holdings in the firm, with the entrepreneur giving up the control of the firm to the acquirer. The growth of venture capital in U.S. markets tends to be ascribed to the availability of these exit strategies. However, if financial markets are underdeveloped or regulations are stricter unlike in the U.S., venture capitalists can have a hard time implementing IPOs or takeovers as their exit strategies from private firms. Taking a firm public via a traditional IPO can be a complex, expensive,

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and time-consuming process in emerging markets where markets for takeovers are also underdeveloped compared to developed markets.

There is an alternative method of going public called a reverse takeover. The reverse takeover occurs when a privately held firm acquires a publicly traded firm (shell) to obtain its public status. Little research has been conducted on reverse takeovers since only a small number of U.S. firms use this method to go public. Gleason et al. (2005) investigate the characteristics and motivation of firms that engage in reverse takeovers, and the short- and long-term performance following the reverse takeovers. However, their sample consists of only 121 reverse takeovers in the U.S. over the sample period of 1987–2001.[1] Reverse takeovers are rare events in the U.S. markets, considering that 5642 firms went public using the IPO method over the same period.[2] In addition, previous literature has not investigated whether a reverse takeover can be used as an exit strategy of venture-backed firms. For instance, Ball et al. (2011) find that venture-backed companies tend to choose between an IPO and a sellout as their exit strategies depending on market conditions, which is consistent with pseudo-market timing.

In this paper, we examine whether venture capital can use a reverse takeover as one of their exit strategies in emerging markets focusing on Korea. The reverse takeover has been a very popular method over the past decade in Korea that private firms utilize to obtain exchange listings. Since there was no qualification standard for reverse takeovers until 2006 in Korea, many firms that did not satisfy the IPO qualification standard could have obtained public status through reverse takeovers. Using Korean data, we try to investigate the factors that influence the choice between IPO, sellout, and reverse takeover of a privately held firm to obtain public status, specifically focusing on venture-backed firms.

In this study, we try to contribute to the understanding of why firms choose reverse takeovers to go public. Black and Gilson (1998) argue that successful entrepreneurs can reacquire control from venture capitalists when IPOs are the means by which venture capitalists exit from the firms. We argue that venture capitalists who try to time market conditions can exit from the investments through reverse takeovers. Because the IPO process takes more than one year on average and Korean firms incur a substantial amount of direct and indirect costs in the process, venture capitalists have a strong incentive to use reverse takeovers as an alternative since reverse takeovers constitute a fast and low-cost going-public mechanism. Therefore, this paper is related to literature that documents contradictory evidence on the timing ability of venture capitalists. Lerner (1994) finds that venture capitalists take firms public through the IPO at market peaks, relying on private financings when valuations are lower. Gompers and Lerner (1998) examine the exit strategies of venture capitalists after the IPO. They find that VC funds distribute the shares of their portfolio companies to limited partners as an exit strategy, which occurs after substantial run-ups in share value, and that this distribution generates a substantial price reaction immediately around the event. These results support the market timing hypothesis. However, Ball et al. (2011) find that the choice between IPO and sellout by venture-backed firms is driven by capital market conditions related to adverse selection costs, capital demand, and the relative costs of IPOs and acquisitions, not by their market timing ability.

The private firms in Korea have used reverse takeovers more frequently to obtain public status, compared to U.S. firms. Out of 1491 firms listed on the Korean stock exchanges over the sample period, 2000–2010, 769 firms (52%) used IPOs, 424 firms (28%) used sellouts, and 298 firms (20%) used reverse takeovers. The higher proportion of reverse takeovers is related to the strict listing requirements of Korean stock exchanges.[3] For instance, firms with negative earnings cannot list on Korean exchanges, while many firms with negative earnings have listed in the U.S. markets. When we limit the sample to firms that satisfy the listing requirements of firm size and profitability, 159 firms (about 15%) out of the 1041 IPO-qualified firms went through reverse takeovers to obtain public status even though they could have gone public using the traditional IPO method.

We mainly use the IPO qualified sample for our analyses. We first compare the characteristics of VC-backed versus non-VC-backed firms and find that VC-backed firms have more intangible assets and are younger when they go public. This finding indicates that VC-backed firms are more information

[1] There has been a surge in "special purpose acquisition companies" (SPACs) over the period of 2003–2007 in the U.S. We think that exchange listings through SPACs are different from reverse takeovers.

[2] Jay Ritter provides detailed data on U.S. IPOs on his homepage (http://bear.warrington.ufl.edu/ritter/).

[3] The Korea Securities Dealers Automated Quotation (KOSDAQ) market has two explicit requirements that the firms need to satisfy to be listed. The firms need to have an ROE of higher than 10% and equity of greater than 3 billion won (about 3 million in U.S. dollars).