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Death spiral issues in emerging market: A control related perspective☆

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ABSTRACT

This paper studies the motive of issuing floating-priced convertibles or warrants, known as *death spirals*, in a country where private benefit of control is high. Using a total of 199 death spiral issuances by public firms listed in the Korea Stock Exchange during 1998–2006, we find a number of pieces of empirical evidence that are less consistent with the conventional *last resort financing hypothesis*, but rather consistent with the *control enhancing or control transferring hypothesis*. First, abnormal returns subsequent to death spiral issuance is negative, but more so in poorly governed firms. Second, operating performance of chaebol issuers are not necessarily low at the time of the issue nor does it deteriorate over time, but they still prefer to issue death spirals over traditional fixed-priced hybrid securities. Third, we do not observe subsequent changes in the controlling shareholder in more than 60% of the issuers and these firms exhibit superior operating performance at the time of the issue compared to other death spiral or non-death spiral issuers. Fourth, proportional ownership of the controlling party in these firms does not decrease, while the number of shares held by family members other than the controlling shareholder increases. Finally, in approximately half of these firms, at least one member of the controlling party holds hybrid securities that can later be converted into voting shares.

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1. Introduction

Floating-priced convertibles, commonly known as *death spirals*, are convertible bonds with price contingent conversion ratios. Unlike the conventional convertibles where the conversion ratio or the number of shares entitled to is fixed at the time of the issue, conversion ratio in floating-priced convertibles changes as the market price fluctuates so that the holder is entitled to more shares as the share price falls. This feature provides the holders with an insurance against any future drop in stock prices and guarantees a fixed total value to the holder. Although initially introduced during late 1990s as a financial innovation to address adverse selection problems in the sense of Myers and Majluf (1984), it quickly disappeared from the market after initial flurry of issues (Brealey et al., 2006).

According to PlacementTracker, however, these securities came back in action. The amount of money raised by structured PIPEs — another name for death spirals — peaked in 2000 at USD 2.6 billion, dropped down to USD 80 million in 2003, and then hit its new record at USD 15.6 billion in 2007.[1] Moreover, recent deals involving troubled US financial institutions closely resemble death spirals. For example, Merrill Lynch's deal with Temasek of Singapore in December 2007 includes a reset clause stating that should Merrill Lynch afterwards raise money at a lower price, Temasek would be compensated retroactively by having its initial investment priced at this lower price.

Cross-sectionally, death spirals are found outside US as well. In Japan, it is known as moving strike convertible bonds (MSCBs) and came under scrutiny when Lehman Brothers provided JPY 80 billion through MSCB in internet firm Livedoor's takeover battle against top broadcaster Fuji Television Network in 2005. In Korea, death spirals are known as convertible bonds or bonds with warrants with an option to re-fix the conversion or exercise price, which became an important external financing vehicle following the financial crisis of 1997.

According to the existing literature, firms issue death spirals when they have no other means of raising capital. Based on US data between 1994 and 1998, Hillion and Vermaelen (2004) confirm this conjecture, which they named as the *last resort financing hypothesis*. Specifically, they show that (i) the issuance of floating-priced convertibles is followed by significantly negative abnormal returns, (ii) the value of the underlying assets, i.e., common stock plus convertibles, fall significantly during the year after the issuance, (iii) operating performance declines significantly relative to comparable non-issuing firms during the years following the issuance, and (iv) poorly performing firms are more likely to issue a floating-priced convertible. In a recent work, Brophy et al. (2009) analyze the characteristics of firms that obtain financing from hedge funds and find similar results.

In this paper, we study the motive of issuing death spirals from a new angle. We investigate whether death spirals may be used to enhance the controlling shareholder's influence over the business group under his/her control or to transfer the control over the issuing firm to the controlling shareholder's heir (*control enhancing or control transferring hypothesis*). The following anecdote illustrates how this could actually occur in practice.

In July 1999, Doosan Corporation, a member firm of one of the large family-controlled business groups or *chaebols* in Korea, issued a bond with floating-priced warrants (USD 100 million).[2] It was an overseas public issuance, but it was prearranged so that the warrants were detached immediately after the issuance and mostly sold to the members of the controlling family. The detached warrants were initially purchased by both the third and the fourth generation family members, but in September the third generation sold all of their warrants to the fourth generation family members. In October, the first downward adjustment of the exercise price took place. The outstanding principal amount was paid back in full only one year after the issuance in July 2000.

[1] PIPE stands for private investment in public equity. In US, floating-priced convertibles are issued though private placements (Hillion and Vermaelen, 2004), although there are public offerings of death spirals in other countries. Visit www.sagientresearch.com/pt for detailed statistics on structured PIPEs in US. After the 2008 global financial crisis, the structured PIPE issuance dropped significantly, down to USD 95 million in 2011.

[2] This anecdote is introduced in two reports (2002, 2003) provided by the Center for Good Corporate Governance (CGCG, 2002, 2003), a local civil organization. At the time of the death spiral issuance, Doosan business group was the 12th largest *chaebol* in Korea.