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Credit crunch and timing of initial public offerings☆

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ABSTRACT

We find that firms with more outstanding short-term debt are more likely to go public in bear markets than firms with less short-term debt. Importantly, this finding is evident for firms going public after a reduction of total bank credits in the loan market. Bear market IPOs repay more short-term debt during the IPO year than other IPOs do, and have lower offering prices and proceeds. These results suggest a credit crunch significantly affects the timing and costs of IPOs when firms owe significant short-term debt.

1. Introduction

This paper investigates whether a credit crunch and firms' capital structure jointly affect the timing of initial public offerings (IPOs). Since IPOs provide an important opportunity to raise equity capital, firms with near-term debt repayment obligations may be eager to conduct IPOs, irrespective of market conditions. Meanwhile, companies may be able to wait for bull markets, which are generally advantageous for equity financing, if they can expect to borrow from banks to repay their debts (e.g., rollover loans). We investigate this idea, which previous studies have overlooked, by focusing on a banking crisis that significantly contracts bank loan supply.

We examine data of 1723 Japanese IPOs between 1997 and 2014. The Japanese banking sector suffered from serious non-performing loan problems during the late 1990s and early 2000s. According to the Japan Financial Services Agency, non-performing loans of major city banks amounted to approximately JPY22 trillion (about USD200 billion) at the peak (March 2002), which prevented Japanese banks from increasing their loan supply. The right column of Table 1 indicates that the annual growth rate of total bank credits in the Japanese loan market records negative values between 1998 and 2005 and between 2009 and 2010, suggesting that a credit crunch occurred during these periods in Japan. Many companies went bankrupt due to the unavailability of

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Table 1
Sample year distribution.

Year	Number of BEAR IPOs	Number of Non-BEAR IPOs	TOPIX (closing price)	Annual percentage growth of total bank credit in the Japanese loan market	Number of bankruptcies
1997	10	60	1147.87	0.00%	16,464
1998	41	40	1088.83	−4.68%	18,988
1999	9	94	1712.27	−5.89%	15,352
2000	68	122	1291.65	−3.75%	18,769
2001	96	67	1013.73	−4.31%	19,164
2002	66	48	849.25	−4.76%	19,087
2003	45	70	1026.24	−5.15%	16,255
2004	7	153	1139.41	−3.23%	13,679
2005	0	151	1663.75	−0.34%	12,998
2006	0	177	1678.91	1.76%	13,245
2007	15	97	1499.94	0.14%	14,091
2008	33	13	854.44	4.08%	15,646
2009	8	12	907.59	−1.21%	15,480
2010	4	15	898.80	−2.07%	13,321
2011	17	18	728.61	0.49%	12,734
2012	8	36	859.80	1.36%	12,124
2013	0	52	1302.29	2.53%	10,855
2014	0	72	1407.51	2.74%	9731
Total	427	1296			

This table indicates the year distribution of our sample IPOs, the market index (TOPIX) at the end of the corresponding year, the annual percentage growth of total bank credit in the Japanese loan market, and the number of bankruptcies.

bank credit during this period. According to Tokyo Shoko Research, a Japanese database company, 6648 Japanese companies went bankrupt in 1990. Remarkably, Table 1 indicates that more than 18,000 companies filed for bankruptcy annually in the early 2000s. The credit crunch and increased bankruptcy were likely to cause managers' anxiety about the future availability of bank loans, and, because of their heavy debt burdens, likely drove them into IPOs even under poor stock market conditions. Since the banking crisis and global financial crisis (hereafter denoted by GFC) are exogenous shocks for companies, Japanese data are advantageous to examine our idea.

We define bear market IPOs (hereafter denoted by BEAR IPOs) as firms that go public after the Tokyo Stock Price Index (TOPIX) records a six-month buy-and-hold return lower than −10%. Table 1 indicates that more than a quarter of our sample companies are classified as BEAR IPOs. This figure is unexpectedly high, given that offering prices and proceeds are generally low in bear markets. It is puzzling why those firms did not postpone their IPOs. The rest of the paper examines whether a credit crunch and short-term debt jointly drive those BEAR IPOs.

Our empirical analyses find that the level of short-term debt is positively associated with the probability that firms will go public in bear markets. Importantly, the positive relationship between short-term debt and bear market IPOs is only evident for firms going public after a reduction of total bank credit in the loan market. Furthermore, bear market IPOs repay short-term debt more during the year of the IPO than other IPOs do. Various analyses are implemented to mitigate endogeneity problems, selection bias, and alternative stories, and the results are materially unchanged. Overall, our data suggest that a credit crunch forces firms with large short-term debt to rush into IPO markets.

Bear market IPOs are likely to be costly for companies in terms of financing conditions. Indeed, we find that bear market IPOs have a significantly smaller offering price and proceeds. Our estimation suggests that BEAR IPOs have approximately 11–12% smaller proceeds (over assets) than non-BEAR IPOs do. Given that the average proceeds represent about 39% of assets, this finding suggests a credit crunch and short-term debt incur significant costs for young companies.

This paper makes significant contributions to the literature. Previous studies show evidence that a credit crunch negatively affects corporate investments, performance, and employment (Chava and Purnanandam, 2011; Cingano et al., 2016; Duchin et al., 2010). To the best of our knowledge, this is the first paper to show evidence that a credit crunch affects the timing and costs of IPOs. We argue that a well-functioning loan market significantly benefits IPO companies and decreases the costs of short-term debt for private companies. We show novel evidence by taking advantage of Japanese data which reflect that the economy experienced a significant credit crunch and then recovered. Previous studies have paid attention to hot market IPOs (Chemmanur and He, 2011; Ritter, 1984; Yung et al., 2008), but only a few studies have examined the motivation of companies going public in bear markets. We find that a non-negligible portion of Japanese IPOs go public in bear markets, and offer a new insight that a credit crunch and short-term debt jointly cause those bear market IPOs.

The remainder of the paper is organized as follows. Section 2 presents the literature review and hypothesis. Section 3 describes the sample selection and data, and defines bear market IPOs. Section 4 presents our main empirical results. Section 5 describes the results of additional analyses. Section 6 offers a summary and the conclusion of this research.