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Bank Loans and Under-Performers

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Abstract

While theory predicts that bank loans provide valuable information to market participants, empirical results have been mixed. We propose and test the hypothesis that the benefits of bank loan announcements accrue differentially as a function of the borrowing firms' financial or operating performance. Evidence from a sample of newly public firms supports this hypothesis.

Keywords: bank lending, bank loan announcements, information asymmetry, newly public firms
JEL Code: G14, G21

Theories of financial intermediation postulate that banks, through their lending activity, play a special role in reducing information asymmetry about borrowing firms.¹ However, empirical support for this hypothesis has been mixed, with more recent work finding no significant effects of bank lending overall.² We extend this line of research by proposing and testing the hypothesis that banks' information production and monitoring will benefit market participants primarily for firms that exhibit poor financial or operating performance.

Our hypothesis derives from the following logic. For firms already known (or expected) to perform well, confirming evidence from bank lending decisions will not come as news to the market. Conversely, for firms known to have uncertain or inferior future performance, bank lending could signal that the bank had uncovered more favorable information, and/or that monitoring associated with the loan will improve the borrowing firm's future prospects. Consequently, we should expect to observe contrasting market reactions to bank loan announcements depending on other measures of the firm's performance.

In this note, we use both a market measure of performance and an operating measure. Low first-day Initial Public Offering (IPO) returns may reflect some combination of limited or highly uncertain future prospects, or may reflect "non-hot" IPOs that stimulate less production of information by media sources and analysts. For operating performance we use operating return on assets (ROA). Consistent with Fields et al. (2006), we find no significant loan announcement effect for the full sample. But, consistent with our hypothesis, we find significantly contrasting loan announcement effects as a function of IPO underpricing and operating return on assets.

Our analysis contributes to the literature in two ways. First, our central hypothesis offers a refinement to extant theoretical predictions, by postulating a distinction in the announcement effect between high-performing and under-performing firms. Second, our empirical analysis, while consistent with recent null results across the full sample, identifies previously unexplored subsample effects consistent with our hypothesis.

I. Data and Analysis

Testing our hypothesis using first-day IPO returns requires a sample of newly public firms. Our sample contains 3,218 IPO firms reported in the Securities Data Corporation (SDC) New Issues database during January 1, 1990 - December 31, 2000.³ We restrict our sample to the subset of

¹ See, for example, Campbell and Kracaw (1980), Diamond (1984, 1991) and Fama (1985).

² James (1987) finds support for the special role of banks, while Fields et al. (2006) find contrasting results. Some studies have decomposed loan announcement returns across loan types, lender categories, and borrower types (Lummer and McConnell 1989; Billett et al. 1995; Byers et al. 1998; Carey et al. 1998) but no previous studies have explore the lender categories studied here.

³ Following prior IPO studies, we omit closed-end funds, depositary shares, real estate investment trusts, spinoffs, unit issues, reverse leveraged buyouts, financial institutions (SIC codes 6000-6999), and utilities (SIC codes 4900-

these firms that borrow from banks during one year after the IPO offer date (identified from the Dealscan database supplied by the Loan Pricing Corporation) and have loan year stock return and accounting data on CRSP and COMPUSTAT, respectively. Out of 3,218 IPO firms, 765 have a loan agreement within one year after the initial public offering.

We examine whether bank loan announcements provide additional information about newly public firms. For seasoned firms, Mikkelsen and Partch (1986) and James (1987) document that the announcements of bank loan agreements generate significantly positive abnormal returns to the borrowers.⁴ Best and Zhang (1993) conclude that banks do not apply equal efforts in evaluating all borrowers. When other sources of information are reliable and signal improving prospects about the borrowers, banks do little further investigation. However, with noisy indicators of firm performance, banks have incentives to investigate the borrowers further, which results in the production of valuable information.

We search Factiva to determine when post-IPO loans were publicly announced and find that bank loan agreements were publicly announced for 257 out of 765 sample firms. We then screen these announcements for confounding news related to other corporate events, such as mergers and acquisitions, earnings and dividends, or issue of public debt or secondary stock. Of the 257 announcements, 77 have confounding news, reducing our sample to 180 observations.

The abnormal return is defined as the raw return on a given stock minus the return on the CRSP value-weighted market index. CAR (-1, +1) is the cumulative abnormal return over a three-day (-1,+1) event window, where day 0 is the loan announcement date. Table I shows that, for the entire sample, the announcement returns are equal to zero (mean=0.01%). This result is consistent with findings by Fields et al. (2006) that bank loan announcements generate no significant returns after the late 1990s. However, the announcement returns are not equal across all firms, but are positive for 89 firms and negative for 91 firms (not reported in the table).⁵

As a preliminary step, we compare mean abnormal announcement returns for the relevant firm categories. Table I shows that loan announcement returns are quite different, both economically and statistically, for borrowers segregated by initial IPO return and by ROA.⁶ The mean abnormal return is 1.21% for firms with initial returns below the sample median, and -1.18% for firms with initial returns above the sample median. Similarly, the mean three-day loan announcement abnormal return is 1.30% for firms with ROA below the sample median, compared to -1.37% for firms with ROA above the sample median. Both differences are statistically significant at the 5 percent level and are consistent with our hypothesis.

4999). We also eliminate IPOs with offer prices below five dollars and check for the availability of post-IPO stock and accounting data on CRSP and COMPUSTAT, respectively.

⁴ Subsequent studies extend these findings by examining the loan announcement returns for different loan types and various borrowers' and lenders' categories (see Lummer and McConnell 1989; Billett et al. 1995; Byers et al. 1998; Carey et al. 1998).

⁵ Fields et al. (2006) also document that bank loan announcement returns are negative for about half of their sample firms. The negative reaction to bank loan announcements is not consistent with the theory of the uniqueness of bank loans, but might be driven by an increase in the borrowing firm's leverage. Future studies could explore this possibility in more detail.

⁶ We measure initial return as the percent difference between the first after-market closing price and the offer price. ROA equals operating income divided by the book value of total assets measured at the fiscal year-end immediately prior to the IPO.

Table I: Loan Announcement Abnormal Returns

Sample comprises 180 bank loan announcements within one year after the IPO. Mean cumulative abnormal return (CAR) is calculated net of CRSP value-weighted index for (-1, +1) event window, where day 0 is the announcement day. Firms are categorized with respect to sample median values of each performance variable.

	Mean CAR (-1, +1), %	Number of Firms	t-statistic
All Firms	0.01	180	(0.02)
Initial Return > 7.021%	-1.18	90	(-1.20)
Initial Return ≤ 7.021%	1.21	90	(1.95)*
Difference in Means	-2.39		(-2.06)**
ROA > 0.127	-1.37	87	(-1.68)*
ROA ≤ 0.127	1.30	93	(1.58)
Difference in Means	-2.67		(-2.30)**

** and * indicate significance at the 5% and 10% level, respectively.

We then test our hypothesis in a multivariate framework. Table II presents OLS estimates in which we regress three-day cumulative abnormal returns on several variables that prior research suggests may explain market reactions to bank loan announcements.⁷ Variables that measure initial returns (Low Initial Return dummy) and firm performance (Low ROA dummy) are the main variables of interest. Models 1 and 2 examine these variables individually, and Model 3 includes both variables. In these specifications the coefficients on Low Initial Returns and Low ROA are positive and significant at the 5 percent level.

Model 4 controls for firm size (natural logarithm of total assets), capital structure (total debt to total assets), firm age (natural logarithm of 1 plus age in years), the existence of a pre-IPO loan, the loan amount, whether the loan was syndicated, and a dummy representing tech industry. The estimated coefficients on Low Initial Return and Low ROA remain positive and significant. Consistent with our hypothesis, these results suggest that announcements of bank lending to firms with poor financial or operating performance provide valuable information to market participants.

II. Conclusion

Motivated by a contrast between prior theoretical predictions and empirical results, we postulate that market reactions to bank loan announcements vary systematically as a function of other measures of the borrowing firms' financial and operating performance. Consistent with our central hypothesis, bank lending appears to be significantly more valuable for under-performing firms. At the same time, consistent with other recent empirical work, there is no significant loan announcement effect across our full sample.

Table II: OLS Regressions of Loan Announcement Returns

This table shows ordinary least square regressions of loan announcement three-day abnormal returns (CARs). Sample consists of 180 post-IPO bank loan announcements. Low ROA is a dummy variable which indicates whether a firm's ROA is below sample median. Low Initial Return is a dummy variable which indicates whether a firm's first day return is below the sample median. t-statistics are in parentheses.

⁷ See Fields et al. (2006) and Slovin et al. (1992).

Model:	(1)	(2)	(3)	(4)
Intercept	-1.366	-1.183	-2.651	1.667
	(-1.64)	(-1.44)	(-2.61)***	(0.60)
Low ROA	2.670		2.753	2.308
	(2.30)**		(2.40)**	(1.84)*
Low Initial Return		2.392	2.484	3.489
		(2.06)**	(2.16)**	(2.78)***
Ln (Assets)				-0.336
				(-0.73)
Total Debt / Total Assets				-2.166
				(-1.05)
Ln (1+Age)				-0.421
				(-0.76)
Pre-IPO Loan				-1.155
				(-0.90)
Syndicate				-1.032
				(-0.79)
Loan Amount				0.004
				(2.12)**
Tech Industry				-2.317
				(-1.05)
Adjusted R ² (%)	2.34	1.77	4.32	5.30

***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

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