

CEO Overconfidence and the Cost of Private Debt : Evidence from Bank Loan Contracting

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Q1: What is the question?

Besides the financial conditions of the borrower, whether banks also care about any personal characteristics of borrowers' managers when they make loan decisions. The authors want to know that whether banks charge lower or higher interest rates on loans to firms with overconfident CEOs.

Q2: Why should we care about this?

There is much empirical research about bad influences caused by overconfident CEOs or investors. However, this paper provides a thought that overconfident CEOs might also bring benefits for firms. It offers banks some ways to weight their behaviors of loan between positive and negative effects. And, firms as borrowers can take it into account to adjust their investment action when they would like to renegotiate the loan rates with banks.

Q3: What is the answer?

Over the sample period (data from publicly listed U.S. firms over 1993-2010), overconfident firms enjoy a 6.37 basis point loan spread reduction on average. And the preferential effects occur mostly in which loans are monitored through the use of covenants or collateral agreements. Besides, if overconfident firms have better growth potential that can benefit the banks with future business, the banks are also willing to provide lower spread.

Q4: How did the author get there?

The authors set a two-period model with multiply risk-neutral banks and firms and define the optimal loan contract, as well as hypothesis that overconfident firms bring more future business opportunities to lending banks than non-overconfident firms and for overconfident firms to have lower spreads: 1) if banks are hedged against the downside risk of the loans 2) when firms have rich firm-specific growth opportunities 3) when firms have more macro-level growth opportunities.

They categorize three levels of manager's overconfidence, characterizing high-overconfidence CEOs as the overconfident group and others as the non-overconfident group. Then, the authors use the statistic methods to test the relationship between CEO overconfidence and 1) bank loan spreads 2) downside protection 3) firm-specific growth opportunities 4) macroeconomic conditions 5) future benefits of banks and solve the endogeneity issues between CEO overconfidence and loan spread by 2SLS model.

List of notations

1. r_f : risk-free interest rate
2. R_N : normal project returns
3. R_G / γ : return of a good growth project with probability γ
4. $R_R : 1+r_f$
5. g_{OC} : probability of good project
6. g_{NOC} : probability of bad project
7. η : probability of growth project
8. OC : a dummy variable that equals 1 if the firm is an overconfident firm
9. $D_{H,GO}$: a dummy variable that equals 1 if the firm has high growth opportunities
10. $D_{M,GO}$: a dummy variable that equals 1 if the firm has medium growth opportunities
11. $D_{L,GO}$: a dummy variable that equals 1 if the firm has low growth opportunities
12. S : the loan spread that the firm pays
13. T : dead-weight loss
14. C : the value of collateral that the bank can receive if the firm defaults
15. CEO_Age : age of CEO
16. CE : capital expenditures divided by total assets
17. V_F : payoffs for firms at date 1
18. V_B : payoffs for banks at date 1
19. β_{OC} : beliefs of overconfident firms
20. β : beliefs of banks
21. δ : reduced probability of choosing a normal project
22. y : side benefit to the lending bank if the firm's return is R_G

Example

The paper “CEO Overconfidence and Financial Crisis: Evidence from Bank Lending and Leverage (2015)” indicated that : “In the period of 1998 Russian crisis and 2007-2009 financial crisis, banks with overconfident CEOs were more likely to weaken lending standards and increase leverage than other banks in advance of a crisis, making them more vulnerable to the shock of the crisis. During crisis years, they generally experienced more increases in loan defaults, greater drops in operating and stock return performance, greater increases in expected default probability, and higher likelihood of CEO turnover or failure than other banks. CEO overconfidence thus can explain the cross-sectional heterogeneity in risk-taking behavior among banks.” From these papers, we should consider overconfidence as a double-edged sword. Although overinvestment caused by overconfidence makes banks have great growth opportunities so that provide lower interest rates on loan for overconfident firms, there is still riskiness brought by overconfidence.