Debt Financing in Private and Public Firms

Discussion by Alvaro Pedraza

1World Bank

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Main Questions

Differences between public and private firms:

- In total leverage
- In debt maturity
- For different industry conditions
Data and empirical strategy

- **All** Canadian corporate firms for the period 2000 to 2008, i.e. 560,256 private firms and 3,475 publicly traded firms

- For each firm-year observation: profit, total debt, short- and long-term debt, equity, assets and location

- Baseline specification:

  \[
  \text{Leverage}_{it} = \alpha \text{Private}_{it} + \beta X_{it-1} + \eta_i + \epsilon_{it} \tag{1}
  \]
Findings and Robustness Tests

- Private firms have on average 12% higher leverage than public firms (3% when firm-fixed effects are included)

- Long-term debt for private firms is 6.2% lower than for public firms

- Results are robust to conditioning by firm size

- Similar findings when using a PSM

- Debt financing is procyclical for private firms. Rely more on long-term debt in good times compared to public firms
Great data

Evidence consistent with earlier findings for the U.K. and U.S. (Brav (2009), Gao et al. (2013) and Asker et al. (2011))

Two main concerns:

a. Cannot distinguish between alternative explanations for why public/private margin might matter for leverage

b. PSM methodology does not rule out endogeneity concerns
Great data


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Empirical Strategy

- Observed differences in leverage could be driven by unobserved differences between public and private firms.

- True of any matching algorithm since matching can only be done on observables.

- Infeasible to randomly assign firms to a stock-market treatment group and a control group of unlisted firms.

- Even with firm-fixed effect, going public is not a natural experiment: Most firms go public for reasons that correlate with investment and leverage, usually to fund a planned increase in investment (Brau and Fawcett (2006)).
Alternative Explanations

- Findings are related to information asymmetries
- Other stories: principal-agent frictions, supply side explanations
- Managers with short-term objectives in public firms hold more cash, signal higher earnings in the future
Motivation

Alternatively, one could use an exogenous shock to the cost of being public (e.g. changes in tax law or investment regulation). These natural experiments are hard to find.

Example: Asker et al (2011) finds that private firms hold less cash and more debt, and public firms are much less responsive to investment opportunities. Using within-firm variation in listing status, from private to public without raising new capital.