Comments by Rafael Repullo on

Why Do Publicly-Listed Firms Delist?

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ACLE-UVA-ECGI-JFI

Symposium on the Ownership of the Modern Corporation

Zandvoort, 17 September 2005

Introduction

Purpose of paper

Analyze firm's decision to stay public or go private

Key idea

Public ownership provides liquidity

→ Reduces cost of capital

Illiquidity of private ownership provides shareholder stability

→ Improves managerial incentives

Introduction

Main results

Public firms go private when

- Liquidity and investor participation go down
- Stock prices go down (bear markets)

Other results

Managers in public firms

- Have more autonomy
- Exert less effort

General comments

- Do we need a theory of de-listing?
  - In what sense is going private different from going public?

- Are heterogeneous prior beliefs necessary?
  - Couldn't we use something more standard?

- Why is the model so complicated?
  - Couldn't we get the same results with a simpler model?

Specific comments

- Why is the firm's manager taking the private/public decision?
- Why is the manager's shareholding α taken as given?
- How can we get a liquid market with a single large shareholder?
- Why is the liquidity cost L (with private ownership) correlated with the arrival of a restructuring opportunity?

Specific comments

- Note that $\rho = \text{Prob}(\theta_i = \theta_h \mid \theta_m = \theta_h)$, <u>not</u> $\text{Prob}(\theta_i = \theta_m)$

A simple model

Key element

Private ownership → Stable investors

Public ownership → Possibly new investors + restructuring

A simple model

Time line

- Private/public decision
- Incentive contract α signed with manager
- Effort e chosen by manager
- Liquidity shock + new investors with probability λ
- Final returns

A simple model

Structure of final returns

- Private and public ownership without restructuring

$$R = \begin{cases} S, & \text{with probability } 1-e \\ S+\Delta, & \text{with probability } e \end{cases}$$

- Public ownership with restructuring

$$R = S + \Delta, \text{ with probability } 1$$

Private ownership

- Optimal managerial effort

$$e_{pr}^{*}(\alpha) = \arg\max\left\{\alpha(S + \Delta e) - \frac{\beta e^2}{2}\right\} = \frac{\alpha\Delta}{\beta}$$

- Optimal incentive contract

$$\alpha_{pr}^{*} = \arg\max\left\{(1-\alpha)(S + \Delta e_{pr}^{*}(\alpha))\right\} = \frac{1}{2} - \frac{\beta S}{2\Delta^2}$$

- Net value of the firm

$$V_{pr}^{*} = \frac{(\Delta^2 + \beta S)^2}{4\beta\Delta^2}$$

Public ownership

- Optimal managerial effort

$$e^*_{pub}(\alpha) = \arg\max\left\{\alpha[\lambda(S+\Delta)+(1-\lambda)(S+\Delta e)]-\frac{\beta e^2}{2}\right\}$$

$$= \frac{\alpha(1-\lambda)\Delta}{\beta}$$

- Optimal incentive contract

$$\alpha^*_{pub} = \arg\max\left\{(1-\alpha)[\lambda(S+\Delta)+(1-\lambda)(S+\Delta e^*_{pub}(\alpha))]\right\}$$

$$= \frac{1}{2} - \frac{\beta(S+\lambda\Delta)}{2(1-\lambda)^2\Delta^2}$$

Public ownership

- Net value of the firm

$$V^*_{pub} = \frac{[(1-\lambda)^2\Delta^2 + \beta(S+\lambda\Delta)]^2}{4\beta(1-\lambda)^2\Delta^2}$$

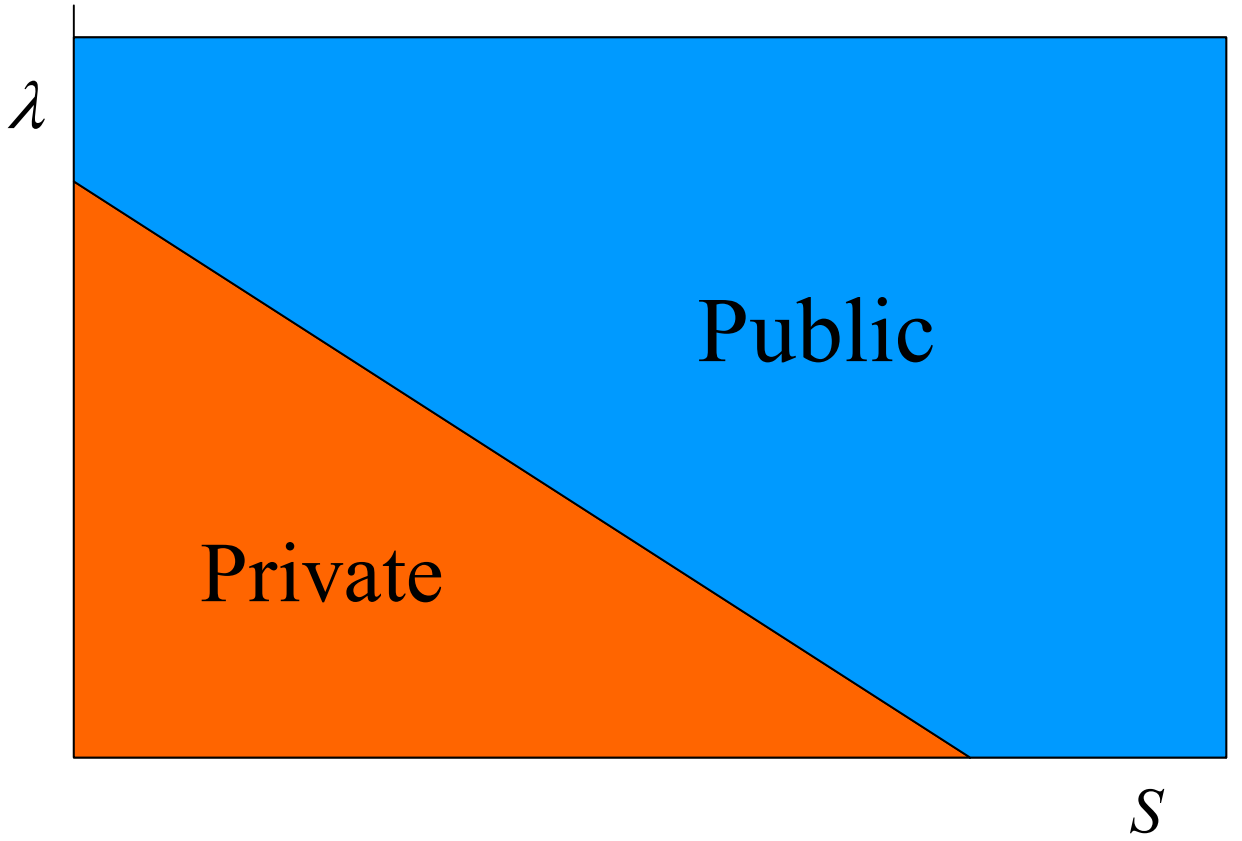
Private vs. public ownership

- Condition for going public

$$V_{pr}^{*} < V_{pub}^{*} \quad \Leftrightarrow \quad \lambda > 1 - \frac{\beta(S+\Delta)}{\Delta^{2}}$$

- More likely to be satisfied when
  - λ is high (higher probability of liquidity shocks)
  - S is high (bull markets)

Private vs. public ownership



Final comments

- In both models have $e^*_{pr} < e^*_{pub}$

  $\rightarrow$ Seems pretty counterfactual

- Results may not be robust to different incentive contracts

  $\rightarrow$ Use options rather than equity