Information Asymmetry and the Quality of the Market for a Firm's Security

To what extent is the information about a firm incorporated into its stock price?

We have seen with a simple model that rational traders won't participate in a market where other traders possess superior information.

In extreme cases, the market for a security will fail.

Measures of the Quality of Trading in a Stock

Float: Number of shares outstanding less number of shares held by insiders and other investors who own at least 5% of the outstanding shares.

Turnover: $\frac{\text{Number of shares traded}}{\text{Number of shares outstanding}}$

Bid-Ask Spread: $\frac{\text{Ask}-\text{Bid}}{(\text{Ask}+\text{Bid})/2}$

Optimal Ownership Structure Under Asymmetric Infomation

Leland and Pyle (1977): An entrepreneur seeks financing for a project whose value is known to him only. The entrepreneur cannot effectively communicate his private information to the public.

The fraction of equity that he offers to sell signals the quality of the project: The better the project, the greater the fraction of equity the entrepreneur keeps for himself.

The entrepreneur has access to two securities: The market portfolio and his projet.

The proceeds from selling equity can be invested in the market portfolio, diversifying the entrepreneur's portfolio.

The greater the quality of the entrepreneur's project, the smaller the fraction of wealth he is willing to invest in the market portfolio.

The market value of his project's equity depends on the fraction he keeps for himself, denote α.

To maximize his wealth, the entrepreneur keeps a fraction of equity $\alpha^* = 0.64$.

This result is consistent with the following observations:

- Many publicly traded firms are *closely* held.
- Many firms are wholly owned subsidiaries of other firms.
- Many firms are privately owned.
- An IPO usually involves one third of a firm's shares.

What about large public firms with diffuse ownership? A good signal of quality is the fraction of a managers' wealth that is invested in the firm.

Information Asymmetry and Dividend Policy

Bhattacharya (1979)

A firm is either “good” or “bad”.

Expected net cash flow is higher for good firms than for bad firms.

Only managers can tell whether their firm is good or bad.

External financing is costlier than internal financing.

A promised dividend is always paid.

Managers' wealth is related to their firm's stock price.

Good firms will pay a dividend, the latter being large enough to discourage bad firms from mimicking it.

Due to low expected cash flows, bad firm would require costly external financing to pay the same dividend as good firms.

Dividends help distinguish good firms from bad firms.

Miller and Rock (1985): Any cash payout can be a powerful signal a firm's earnings capacity.

Cash payouts: Dividends, stock repurchases, debt retirements.