Research on Corporate Transparency
Element 13: Information Asymmetry

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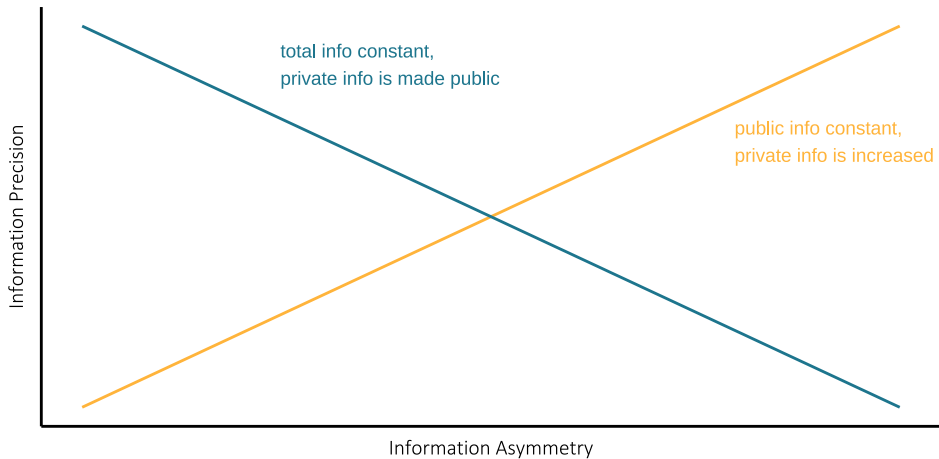
- An increase in information precision (reduction of estimation risk) is priced if it is undiversifiable
- In a large economy this is true if the precision increase has an impact on the covariance of expected returns
- If all investors are homogeneously informed, investors cannot learn from price and thus expected returns can be modeled without focusing on the price mechanism
- If information is heterogeneously distributed across investors, information asymmetry arises and, in equilibrium expected returns depend on price (rational expectations)
- Models of information asymmetry have to be rooted in the microstructure of the capital market

- Easley and O'Hara (2004) develop a market microstructure model which addresses the impact of information asymmetry on asset pricing.
- Building on a multi-asset noisy rational expectations framework, they assume two types of investors:
    - an uninformed group receiving only public signals about assets and
    - an informed group which receives additional private signals;
- where the total amount of signals is fixed.

- Uninformed investors can infer information from price, but only partially
- Thus, they end up holding different portfolios than informed investors
- As more investors get informed,
    - information asymmetry is reduced,
    - prices become more informative and
    - the cost of capital is reduced

total info constant,
private info is made public

public info constant,
private info is increased

Information Precision

Information Asymmetry

- Heterogeneously informed investors will hold different portfolios in equilibrium
- Uninformed investors end up holding too many bad news stock and to few good news stocks
- Information precision affects cost of capital if it impacts the covariance matrix of expected returns
- Information asymmetry affects cost of capital only by its impact on information precision
- Prices are common knowledge and thus increased information precision reduces information asymmetry
- The remaining information asymmetry is unobservable and can not affect cost of capital