



SFB/Transregio 266

ACCOUNTING FOR  
TRANSPARENCY

## Research on Corporate Transparency

Element 5: Unraveling

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## Motivating question

Why do firms (or other agents) voluntarily disclose information?

## Intuitive answer

To avoid adverse selection

## The argument

Suppose there is a set of  $i$  firms with firm value  $x$  represented by

$$x_i = y_i + \epsilon_i$$

Information  $y$  is observable by each firm and  $\epsilon$  is a generally unknown noise term with  $E[\epsilon] = 0$ . The distribution of  $y$  is bounded and  $y \in [\underline{y}, \bar{y}]$  as well as its probability density function are common knowledge.

Disclosing  $y$  is costless for the firm and disclosures are always truthful.

Investors build rational expectations based on the information that they receive meaning that they will price the firm with the price  $P(y) = E[x|y] = y$  when they observe  $y$ .

## The equilibrium

Unraveling result (Grossman (1981), Milgrom (1981)): The strategies, (i) the firm discloses all information and (ii) investors price the firm at  $y$  upon disclosure of  $y$  and  $\underline{y}$  upon nondisclosure, is the only perfect Bayesian equilibrium of this disclosure game.

## A graphical intuition

## Empirical support?

- There is convincing empirical evidence that firms voluntarily disclose (see, e.g. Balakrishnan et al., JoF 2014) but also ample evidence that firms decide to withhold (bad) information (e.g., Bao et. al, TAR 2019)
- To a large extent the theoretical literature on voluntary disclosure can be understood as identifying mechanisms that offset (and re-establish) the unraveling mechanism.
- Coming up: Two examples

Disclosure cost = 3

Uncertain information endowment (Dye, JAR 1985 and Jung and Kwon, JAR 1988)