

THE ECONOMICS OF TRANSPARENCY (AND PRIVACY)

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TRANSPARENCY = PANACEA?

- ▶ One question worth asking a priori: is more transparency always a good thing?
- ▶ Received wisdom is “it depends”:
 - ▶ More information can be Pareto worse, i.e. worse for everyone, for example by destroying insurance possibilities.
 - ▶ But opacity can lead to bad self-confirming outcomes based purely on rumor, for example bank runs.
- ▶ Traditionally, either the “market” or the regulator has decided the information structure in specific markets.

CONCERNS

Three trade-offs/ concerns immediately crop up when considering releasing more information:

1. Adverse Selection/ The Lemons Problem.
2. The Public Goods Problem/ The Tragedy of the Commons.
3. Logistics.

THE LEMONS PROBLEM

- ▶ First observed by Akerlof: if traders are differentially informed, markets can shut down (or more realistically, be inefficient).
- ▶ “The fact that you’re willing to trade with me at the price I’m offering means I’m offering too much.”
- ▶ Information and certification helps mitigate this adverse selection, and restores market function.

THE PUBLIC GOODS PROBLEM

- ▶ Public information is a (peculiar sort of) a public good:
 - ▶ Everyone benefits from information.
 - ▶ Each participant privately suffers the costs from revealing his private data.
- ▶ Participants have incentives to “free-ride” on information provided by everyone else, while themselves mis-reporting, under-reporting or not participating.
- ▶ In settings where regulatory data comes from voluntary or semi-voluntary submissions by participation, this may reduce the quality of the data set.

THE LOGISTICS PROBLEMS

- ▶ 2 sorts of transparency are “easy” to work with:
 1. Complete transparency.
 2. Complete opacity.
- ▶ Intermediate levels are more problematic: how does one make sure that one does not inadvertently release more information than intended?
- ▶ Particularly important if dealing with trade-sensitive information.

WHY NOT JUST RELEASE AGGREGATE STATISTICS?

Two examples:

1. Don't know what else people know: Releasing the average salary of everyone in this room might reveal a lot of information about the few academics since someone else released the average salary of central bankers.
2. Awareness: If a regulator releases a summary statistic that says "only 10% of banks are undertaking trade x ," this might reveal to the other 90% that x is viable/ exists/...

FORMAL FRAMEWORKS FOR PRIVACY

A lot of modern research on “robust” methods to guarantee privacy.

Differential Privacy: toolbox to release a summary statistic of a database which **guarantees** how much an outsider can learn about a particular entry, **regardless** what else he knows.

Ongoing field of research, lots of “possibility” results, i.e., it is possible to release nontrivial information while assuring constituents of nontrivial privacy.

So if a regulator collects data and releases a differentially private summary statistic, she can simultaneously alleviate both adverse selection and public goods problems.

AND ONE MORE PROBLEM

- ▶ As a parting shot, note that “private” releases are necessarily coarse and/or noisy.
- ▶ Can our existing policy apparatus adapt to work with noisy information? What if we get a bad draw?
- ▶ Despite the inherent issues, people like (faux-)precise predictions.
 - ▶ “Ranges are for cattle, give me a number”—Lyndon Johnson.