

# Review: costly state verification

- Developed by Townsend (1979), used in Diamond (1984), Bernanke-Gertler-Gilchrist (1999)
- Time 0: principal provides funding  $I$  to agent
- Time 1: agent's profit  $y \sim F[0, y^*]$  is his private information but principal can verify  $y$  at cost
- Optimal contract (with deterministic verification) is debt with face value  $d$ : agent reports  $y$  truthfully and pays  $d$  if  $y \geq d$ , triggers default and pays  $y$  if  $y < d$
- In our context: intermediary can cause losses (reduce  $v_t$  for private benefit); debtholders verify if  $v_t$  falls below  $d_t$