Industrial Strategy and Public-Private Partnership under Severely Incomplete Information

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Industrial Strategy and Public-Private Partnership

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  - industrial strategy cannot be sector neutral
Why not public sector alone?
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Consequence 1: inputs and direction of (micro-level) activities controlled by private firms

Consequence 2: informational asymmetry between private firm and government
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Innovation, trial-and-error and uncertainty
Uncertainty and Severely Incomplete Information

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- Type 1 mistake: dropping a potential winner too early—market failure
- Type 2 mistake: dropping a probable “loser” too late—a policy pitfall
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Undeserving rent-seeking should be prevented

The design of the incentive scheme needs to be robust to the (severe) information constraints
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The cost of investment is $\alpha k$ for (per period) investment $k \in [0, 1]$
Picking Winners, Dropping “Losers”

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- By social criterion, a project is dropped as a “loser” if and only if

\[ p(K, p_0) < p^* \triangleq \frac{\alpha}{\lambda (\Pi_F + \Pi_G)} < p^F \]
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- subsidy $S(k)$ cannot depend on $p_0$
- government uses the max-min objective function to evaluate policy.
Criterion under PPP: a project is dropped as a “loser” if and only if

\[ p(K, p_0) < p^{**} \triangleq \frac{\alpha}{\lambda \left( \Pi_F + \frac{\Pi_G}{1+\gamma} \right)} \in \left( p^*, p^F \right) \]
Optimal Policy under the PPP

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The matching subsidy that can implement this criterion has

\[ \phi^{**} = \frac{\frac{\Pi_G}{1+\gamma}}{\Pi_F + \frac{\Pi_G}{1+\gamma}} \]

or

Cost share = Benefit share
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Policy Mistakes to Avoid

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But, bad policies are not inevitable!