Decentralized Bribery and Market Participation

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- Second one — a *transfer*.
- This paper: there are welfare implications for the second type of bribe.

Literature

Empirical Literature:

- Exposure to corruption $\Rightarrow$ less investment, slower growth.
- Corrupt economies are heavily regulated.
- Putin is blamed for economic development, but not for corruption.

Theoretical Literature:

- Stealing from governmental coffers is bad for development.
- Rent-seeking is vacuous.
- Bribes can improve the allocation.

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Answers

- It can make the society *worse off* by scaring small businesses away.
- It might not be a good idea to decentralize bureaucracy.

Fundamentals

Agents

- Agents consume a single *good*.
- Agents have roles: *investor* or *inspector*.

Roles

- **investor** gets a random project, need to invest K, after investment observes return R, needs to pass an inspection.

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Roles

- **investor** gets a random project, need to invest K, after investment observes return R, needs to pass an inspection.
- **inspector** asks for a bribe, if not paid does not pass the project.

Investors

- Investor observes K — **project size**.
- Expects to pay a **bribe** s.
- Investor chooses whether to start up a project:
    - After investment, **project return** R is observed.
    - If $s > RK$, investor can decide to not pay the bribe and walk away.
    - Expected return is $E[RK - s^*]_+ - K$.

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Result
When $K > K^*(s^*)$, investor participates.

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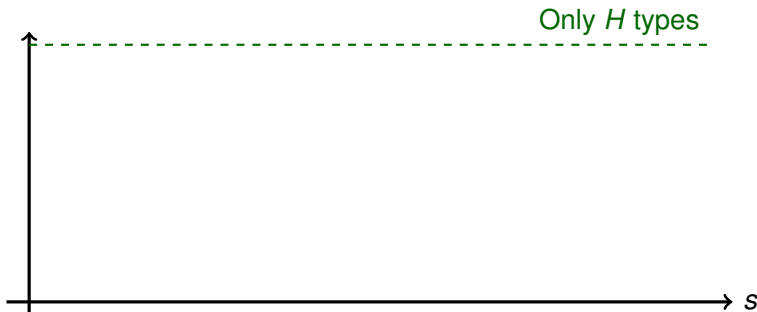
$$s/K = \frac{1 - F_R(s/K)}{f_R(s/K)}.$$

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- In general, the solution is

$$s^* = \frac{\int_0^{+\infty} \left(1 - F_R(s^*/\kappa)\right) f_K(K)dK}{\int_0^{+\infty} 1/\kappa f_R(s^*/\kappa) f_K(K)dK} = \frac{E_K\left[P(R > s^*/\kappa)\right]}{E_K\left[1/\kappa f_R(s^*/\kappa)\right]}.$$

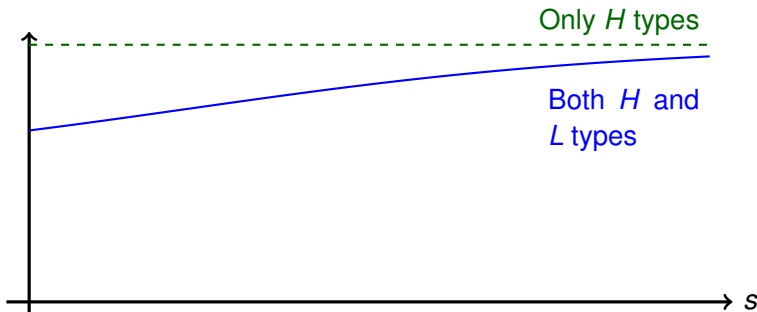## Inspectors

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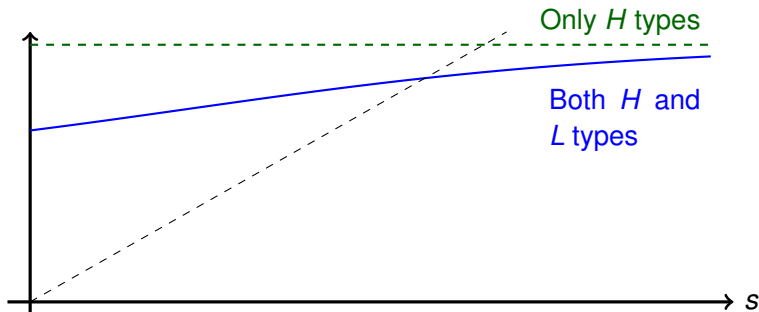
Equilibrium

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  - all projects bigger than K^* are implemented;
  - the bribe size is s^*;
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    - all projects bigger than K^* are implemented;
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- Equilibrium exists
    - no participation: no projects are implemented
    - partial participation: a subset of projects is implemented
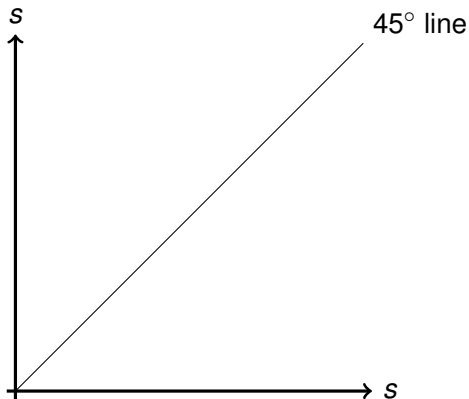   - full participation: all projects are implemented

Capital Market

- The expected return of a project of size K is $[R - s/\kappa]_+ - 1$.
- The total profit is $[RK - s]_+ - K$.
- The derivative of that with respect to K is

$$\overbrace{\left(\int_{\frac{\bar{s}}{K}}^{+\infty} \left(R - \frac{\bar{s}}{K} \right) dF_R - 1 \right)}^{\text{Average return}} + K \overbrace{\left(\int_{\frac{\bar{s}}{K}}^{+\infty} \left(\frac{\bar{s}}{K^2} \right) dF_R \right)}^{\text{Extra chance of no cancelling}}.$$

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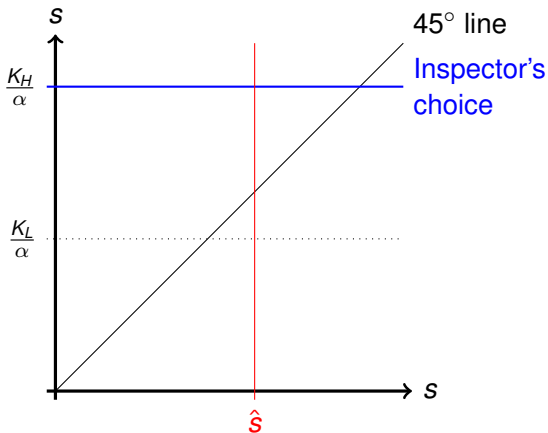   - but increase in scale will only increase the bribe size.

The Squandering

- Consider a situation where both restricted and abundance equilibria exist.

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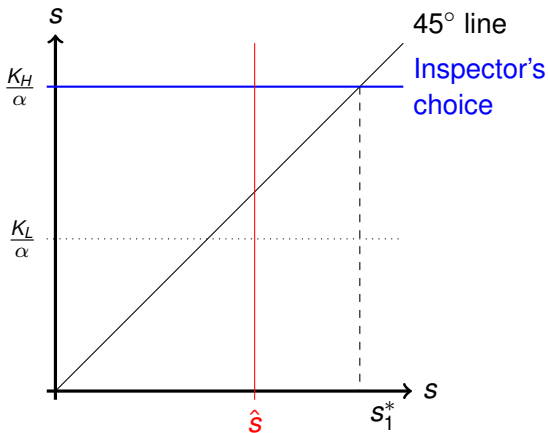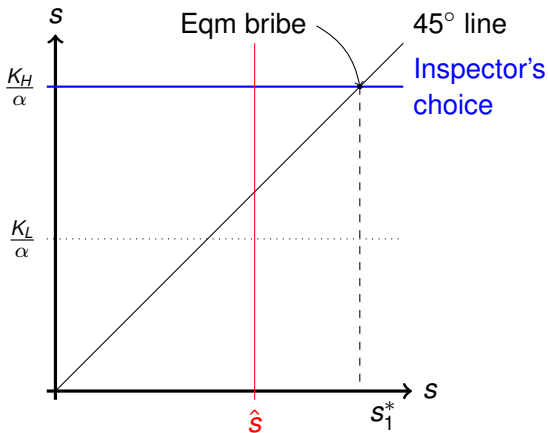- Consider a situation where both restricted and abundance equilibria exist.

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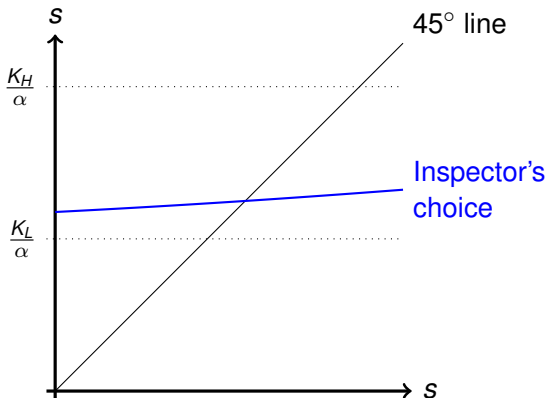- Consider a situation where both restricted and abundance equilibria exist.

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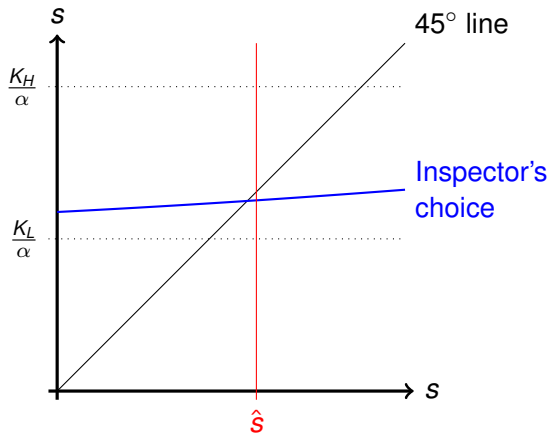- Consider a situation where both restricted and abundance equilibria exist.

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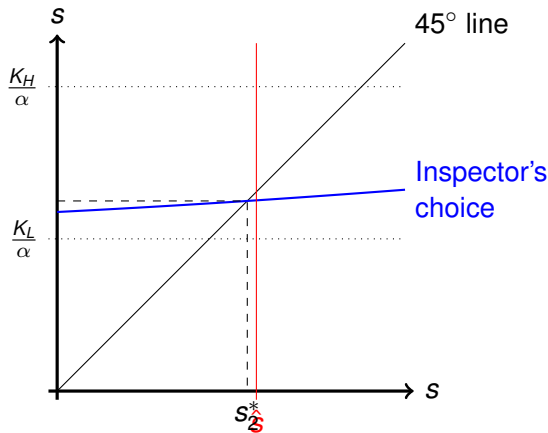- Consider a situation where both restricted and abundance equilibria exist.

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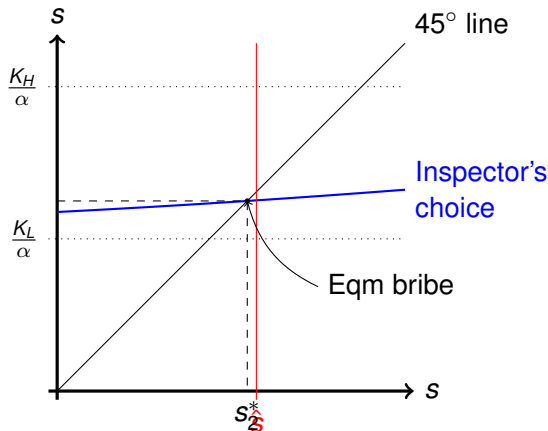- Consider a situation where both restricted and abundance equilibria exist.

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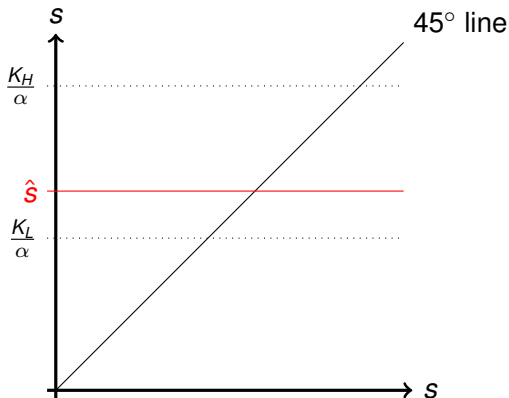- What if there is a signal about the investment size?..

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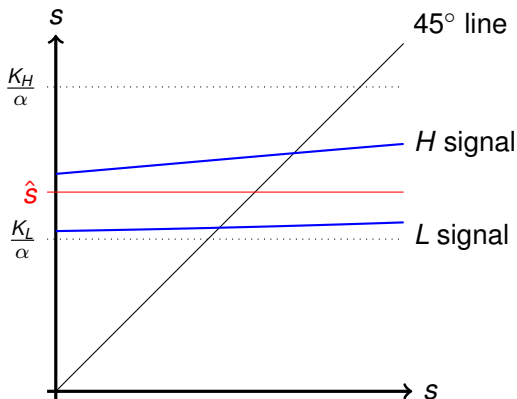- Then inspectors will believe their signals if both types of firms start up...

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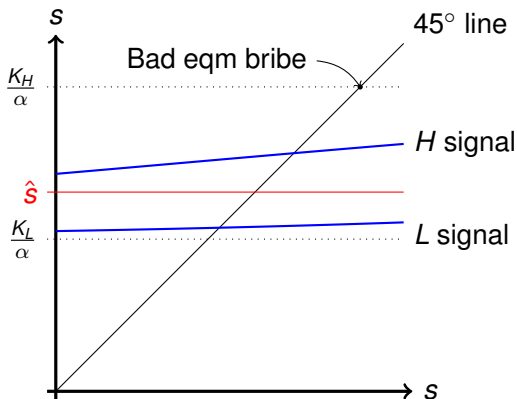■ What if there is a signal about the investment size?..

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- Recovery rate higher $\Rightarrow$ bribe can go down (does not have to!)
- Not rent-seeking.
- No strategic complementarities.
    - No crowding on markets.
    - No market power.