

Should the Timing of Inspections Be Random?

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Abstract :

A principal provides funding for a long-term project that culminates in a success or a failure. Arrival rates of success and failure are governed by an agent's hidden actions: diverting the funds for private benefit increases the likelihood of failure; investing the funds increases the likelihood of success. The principal learns about past actions by performing costly inspections.

We show that the form of the optimal timing of inspections depends only on the relative sensitivity of success and failure rates to the agent's investment choice. When investment primarily generates success, the inspection dates are predictable. When investment primarily prevents failure, the optimal timing of inspections is random.