Comment on "Relational Contracts with Private Information on the Future Value of the Relationship: The Upside of Implicit Downsizing Costs" by Nicolas Klein

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Overview

- This paper considers a relational contracting setting in which P possess private information about the future value of the relationship (P's type in the next period).
- P must truthfully reveal the type in the next period.
- An optimal contract may involve distortion in effort.
- Downsizing emerges as a commitment device.

Model

1. P makes an offer.
2. Payment w_t is made and A chooses effort n_t
3. Revenue $\theta_t g(n_t)$ realized and consumed by P.
4. P's next-period type $\theta_{t+1} \in \{\theta^l, \theta^h\}$ observed by P where the types are iid.
5. $\hat{\theta}_t$ announced and bonus b_t paid to A.

Key Assumptions

- No formal contracts, aside from constant payment w_t; effort n_t is observable but not verifiable.
- P observes her type in *the next period*, i.e., the future value of the relationship, before paying bonus.
- E.g., management possessing superior information about future demand.

Benchmark: public types

- A also observes P's type in the next period.
- Dynamic Enforcement (DE): the bonus must be smaller than the continuation value of the relationship.
- In the case of observable types, every deviation is observable; no need to burn any surplus on the equilibrium path.
- There exists an optimal stationary contract which leaves no rent to A and IC binds after any history.

Private types

- Now only P knows tomorrow's type.
- Truth Telling (TT): P must truthfully reveal her private information.
- A deviation cannot be detected.
- P can earn information rent, which makes it harder to implement any level of effort.

Private types

- A tension between the two constraints.
- DE suggests that P can credibly pay higher bonus when tomorrow's type is high.
- P would then be tempted to falsely claim her type when it is high.
- Given $b^h \geq b^l$, P has incentive to claim the type is low when it is actually high.

Results

- Effort levels in low periods are contingent on the history.
- n_i^l where i denotes the number of low periods after the last high period.
  - If discount factor δ is close to one, the first-best can be implemented.
  - If δ is in some intermediate range, $n_0^l < n_l^{FB} < n^h < n_h^{FB}$ and $n_i^l = n_l^{FB}$ for all $i = 1, 2, ...$
  - If δ is even lower, under some conditions, effort levels oscillate.

Intuition for the second result

- An interesting case arises when δ is too low to implement e_h^{FB} but high enough to implement e_l^{FB}.
- Simple transfers do not work because they affect both on-path and off-path equally.
  - To relax TT, announcing "low" should be sufficiently unattractive (more rent to A).
  - But then, this violates DE for low type.
  - It requires effort distortions (for one period).

Intuition for the second result

- The distortion hits a lying off-path principal harder.
- A smaller e_0^l
  - reduces the surplus for low type;
  - reduces the off-path surplus (exerting e^l when the type is actually high).
- The first effect is of second order around the first-best while the second effect is of first order.

Summary

- A very interesting paper.
- The tension between DE and TT may result in effort distortions.
- It captures a virtue of downsizing as a commitment device.

Comment 1

- It would be nice if full characterization were obtained, but it is prohibitively complicated for $\delta < \underline{\delta}$... (perhaps not worth the effort).
  - These cases are not important anyway: enforceable efforts are constrained, and the value of private information is small when δ is low.
- Let e_I^{PUB} denote the optimal effort level under public types.
- Is $e_I^{PUB} > e_0^I$ (or better yet, $e_i^{PUB} > e_i^I$ for $i > 0$) for $\delta < \underline{\delta}$?

Comment 2

- How large is $(\underline{\delta}, \overline{\delta})$?
- How does it depend on q?
- Many motivating stories (downsizing and recovery after a short period of time) are based on this case.
- Private information has less bite when q is close to zero or one, or alternatively $\theta^h - \theta^l$ small (stable demand?).

Comment 3

- Timing is crucial: P is informed when she pays the bonus.
- P has incentive to commit to paying the bonus first and then observing the type, if it is her choice at all.
- Some justification for this timing structure would help.
  - Information must be acquired in advance to be useful.
  - Information about the type comes through effort monitoring; effort and type are not separable.

More minor comments

- What if revenue $\theta_t g(n_t)$ is observable to A?
  - A can infer θ_t through this observation and detect a deviation (with some time lag).
- What if the game begins with $\theta_1 = \theta^I$?
  - The optimal contract may be a bit more complicated.