Third-Party Opportunism and the (In)Efficiency of Public Contracts

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The "story" about TPO

Theoretical model: some interesting insights

Cases where TPO is explanatory—ideas for empiricists

Characteristics of Public Contracts

- inefficient
- low quality
- delays
- expensive
- corruption, favoritism
- bureaucratic, red tape

- politics
- intricate, convoluted
- scrutiny, regulation
- controls, inspections
- protests, courts
- ...

Characteristics of Public Contracts (cont.)

• ... third parties...

Characteristics of Public Contracts (cont.)

• ... third parties...



Figure: Monster-in-Law

Characteristics of Public Contracts (cont.)

• ... third parties...



Figure: Monster-in-Law

... not necessarily interested in the success of the relationship (political opponents, excluded bidders, and interest groups)

Research Question

What is the impact of **third parties** in public procurement and acquisition?

Findings

- Third-party opportunism (TPO) as key hazard of public transactions
- Specificity and rigidity in public contracting are a political risk adaptation by public agents
 - Public agents limit the risk of third parties' challenges through formalities and rigidities
 - ... externalizing the associated costs to the public at large
- Scrutiny increases public contracting efficiency in costly litigation environments, concentrated (politically) contestable markets, and with upwardly biased beliefs about benefits of challenge

Signaling Process: Hazards into Rigidity—Agents

Preliminaries:

- Public agent's perspective
- Simple short-term contract for standard good/service
- Ignore sunk costs to abstract from governmental opportunism

Four agents explicitly and implicitly involved in public contracting:

- Incumbent public agent
- Private contractor
- Third-party challengers, i.e., political opponents to the incumbent public agent, competitors to the contractor, and interest groups ("anti-arbitrators")
- Public at large, i.e., voters and courts

Signaling Proces: Hazards into Rigidity—Timing

Public agent:

- Receives project features and budget P^{bud}
- Perceives threat of potential TPO challenges
- Minimizes political risks by contract specificity and rigidity R^*

Private contractor:

- Observes contract specificity and rigidity R^*
- Less adaptability equals higher contracting and implementation costs, and hence higher final price P^{min}

Third parties:

- Operation of the property o
- \bullet Contract features R^* affect third parties' strategies, thereby affecting political outcomes

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Modeling Hazards, Rigidity, and Pricing—Cheat Sheet

Variable	Description	f(R)	In Paper
au	Likelihood of success of TPO challenge	<u>\</u>	Assumption 1
c	Litigation costs	ightharpoons	Assumption 2
K	Private K_{pr} and public K_{pu} adaptation costs to TPO: ex ante contracting and ex post penalties, implementation, and enforcement costs (time, lawyers, documentation, and control)	Ì	Assumption 3
ho	Likelihood of TPO challenge	\searrow	Proposition 1
$\mathbb{E}(T)$	$=T_0\rho\tau$ Expected political costs of the loss of office, reputation, and support	\hookrightarrow	Definition 1 & Proposition 2

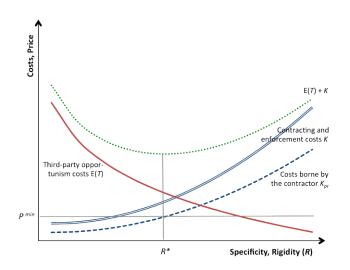
Nature of the Game

We define the following objective functions for the agents:

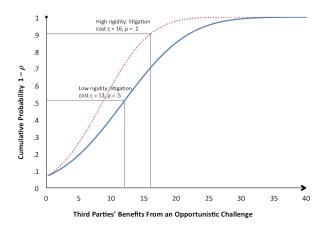
$$\begin{cases} \text{Incumbent public agent:} & \min _{R} = \mathbb{E}[T(R) \mid \tau] + K(P,R) \\ & \text{subject to} & K = K_{pr}(R) + K_{pu}(P,R), P^{bud} \geq K_{pr} \\ \text{Private contractor:} & \max _{P} = (P - K_{pr}) \mid R \\ & \text{subject to} & P^{bud} \geq P \geq K_{pr} \\ \text{Third-party challengers:} & \max _{q \in \{0,1\}} = q[\widetilde{T_0}\zeta\tau - c] \mid R \end{cases}$$

where $\zeta \in (0,1]$ is the political (market) concentration and $\widetilde{T} = \widetilde{T_0} \zeta \tau$ reflects opportunistic third party's beliefs about her potential internalization of the incumbent public agent's costs

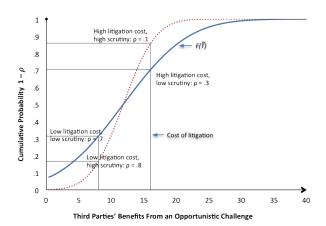
Optimal Contract Specificity and Rigidity



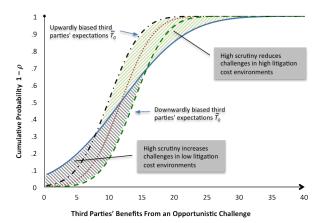
Endogeneity of Opportunistic Challenge



Scrutiny: Calibration of Beliefs



Scrutiny with Biased Third Parties' Expectations



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Scrutiny: A Two-Sided Sword

- On the one hand, better informed third parties due to scrutiny may increase or decrease the likelihood of TPO, depending on calibration and update of beliefs
- On the other hand, scrutiny increases the level of internalization of adaptation costs by the public agent
- ⇒ It is equivocal whether open information policies (as the case of California or Berlin) lead to more efficient public contracts

Proposition

Assuming away administrative scrutiny costs, an increase in scrutiny reduces contract rigidity R^* only if the internalization of adaptation costs effect is larger than the increase of political costs due to calibration and update of beliefs by opportunistic third parties

Political and Market Structure

- \bullet If the political opposition is fragmented, benefits from a challenge can go to any of the political competitors, not necessarily to the challenger who bears costs c
- As $\zeta \approx 0$ (atomized political opposition), there will be no TPO challenges (mono-partisan or autarky system)
- Analogically, a loser bidder will challenge a contract output only if benefits \widetilde{T} are higher than litigation costs c
- In this case, ζ describes the challenger's market structure: $\zeta=1$ for symmetrical Bertrand duopolies (one's contractor losses are the gains for the other), $\zeta<1$ for oligopolies, and $\zeta\approx0$ for perfect competition, where an individual competitor has no incentives to challenge a public tender outcome

Applications

- Bureaucracies
- Fixed-Price vs. Cost-Plus Contracts
- Public-Private Partnerships
- External Consultants and Certification of Contractors
- Efficient Small Communities and Authoritarian Regimes
- Privatization of Government-Owned Companies

Fixed-Price vs. Cost-Plus Contracts

- In theory, fixed-price better when adverse selection < moral hazard
 - Fixed-price: standardized goods, low informational asymmetry
 - Cost-plus: **complex projects**, i.e., technological uncertainties > inefficiencies from incomplete monitoring
- In practice, cost-plus subject to more TP challenges
 - GAO 2008 on defense acquisition: **cost overruns** of 26% (\$295B)
 - More adaptable, but also abusable ("blank check")
 - US Presidential Memorandum of 3/4/2009: "there shall be a preference for fixed-price type contracts."
- Under TPO, fixed-price preferred where cost-plus more efficient
 - Fixed-price does not provide adaptable risk-sharing mechanisms
 - Costs underestimation in 9/10 of transport projects
 - Event study—Poland: 29% of contracts to lowest price bidder in 2004; 91% in 2010: EU increased frequency and depth of controls

Public-Private Partnerships

- PPPs: ex ante flexibility in contracting to gain efficiency
- Ex ante flexibility makes PPPs vulnerable to TPO $(\uparrow \rho) \rightarrow \uparrow P$
- Response: KPIs as *ex post* quality control and signal that service remains publicly accountable
 - Australia (2001): the PPPs inferior—more expensive or lower quality of services—than the standard model of public procurement
 - Response: formal procedures for *ex ante* assessment using the Public Sector Comparator (PSC) and Value-for-Money (VfM), i.e., more contractual *ex ante* specificity and costs
 - New Zealand (2009): "there is little reliable empirical evidence about the costs and benefits of PPPs" and that "the advantages of PPPs must be weighed against the *contractual complexities and rigidities* they entail"
- TPO → PPPs only when gains from contract flexibility and better private management > costs of compliancy with ex ante cost-benefit assessment and ex post KPIs

Concluding Remarks

TPO theory combines political hazards and adaptation costs to explain apparent inefficiencies in public contracts

- High ex ante payment volatility or ex post flexibility in implementation may trigger drawbacks, leading to contract failure or costly adaptation by the public official, whether in terms of time or political career
- High specificity and rigidity, and high prices of public contracts is a sequential equilibrium: public agents minimize political third-party costs with contract specificity and rigidity, which induce high contracting prices
- True inefficiency in public contracting should pass Williamson's (1999) remediableness test

