

Discussion of  
**“Organizational Capacity and Project Dynamics”**

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# Motivation and research questions

Study the role of organizational capacity on public policy outcomes

## Questions

- ▶ How does **organizational capacity** impact **public policy projects**?
  - ▶ What is the role of **political transitions** in project design?
  - ▶ How do institutional context and **regulation** interact with it?

## This paper

- ▶ Capacity  $\equiv$  how fast the bureaucracy can advance through stages in a project
- ▶ Theory of project dynamics affected by political turnovers and institutional rigidity
  - ▶ Impacts on: 1) *Project scale*, 2) *Distribution of Benefits*, and 3) *Induced Delays*

# Theoretical Framework Review

▶ **Players:**  $i = A, B$ , **Time:**  $t = 0, 1, 2, \dots$

▶ **Timing:** At  $t = 0$ ,  $A$  starts a project:  $\{s, (w, 1 - w)\}$   
 $\forall t \geq 1$ ,  $i$  in control can revise:  $(w, 1 - w)$

▶ **Project's states:**  $d$  development,  $e$  executed ( $t = \mathbb{T}$ )

$p$  prob. from  $d$  to  $e$  (organizational capacity)

$r$  prob.  $A$  has control in  $t + 1$

▶ **Exogenous:**  $q$  prob. revision succeeds (inst. rigidity)

$v$  value generated by the project

$s$  project scale

▶ **Endogenous:**  $w$  share of the benefit for  $A$

$\Delta$  inequality  $\equiv w - (1 - w)$

$\sigma^i(\Delta)$  revision strategies

▶ **Payoffs at completion:**  $U^A = w \cdot v \cdot s - \mathbb{T} \cdot c(s)$   
 $U^B = (1 - w) \cdot v \cdot s - \mathbb{T} \cdot c(s)$

▶ **Additional assumptions:**

– No discounting

–  $c(s)$  continuous,  $\varepsilon(s) \geq 1$ ,  $c(0) = 0$ ,  $c' > 0$ ,  $c'' > 0$

– reduce analysis to

$w^A, \Delta^A$  if  $w \geq 0.5$

$w^B, \Delta^B$  if  $w \leq 0.5$

▶ **Equilibrium Concept:** MPE

▶ **Extension:**

– Two stage project:  $s_1, s_2$

–  $c(s_\tau) = m_\tau s_\tau^2$   $m_1 = 1$   
 $m_2 = 1/s_1$

▶ Model insights and results

# Assessment and Contributions

Fascinating and thought-provoking paper with lots of potential to analyze contexts beyond the US

- ▶ Novel approach to model bureaucratic capacity and project dynamics
  - Organizational Capacity  $\equiv$  transition probability of a **Markov process**
  - **Expected** and **induced** delays that could lead to strategic over or under scaling
  - Main mechanism in the model: *Avoidance of revisions*
- ▶ Take-home message: *In highly litigious environments with frequent power transitions enhancing organizational capacity may not necessarily lead to improvements in overall welfare and project performance*
- ▶ Consistent with recent empirical works on the potential costs of political competition, turnover, and regulation on state effectiveness  
(Fergusson, Larreguy, Riaño, 2022; Muratza, 2023; Akhtari, Moreira, and Trucco, 2020)
- ▶ It made me reflect on three sets of comments and potential extensions

# 1. On the no-discounting and common value assumptions


## Intuitively for empirical applications

- ▶ Common project valuation is unlikely
  - $v_A \neq v_B, c_A(s) \neq c_B(s)$
- ▶ No impatience for completion too
- ▶ In reality, the opposition might have
  - different valuation (even  $v_i < 0$ )
  - discount project completion differently: have more/less impatience for it
- ▶ What would be the implications of relaxing these assumptions, especially **costs** and **discounting**?

## On the methodological side

- ▶ What are the conditions to make this MPE hold without **discounting**?
- ▶ MPE exists in this type of game if it is *Continuous at Infinity* (Maskin & Tirole, 2001)
  - Satisfied if distant future events are relatively unimportant (**discounting**)
  - per-period payoffs are u. bounded
- ▶ If guaranteed by other features in the modeling or new results, please refer the reader to the relevant conditions

## 2. On the rationalization of “White Elephants”

- ▶ Project abandonment is prevalent across many bureaucracies worldwide   
(Bancalari, 2022; Williams, 2017; Rasul and Rogger, 2017, Robinson & Torvik, 2005)
- ▶ Yet, in the model players are **always** interested in project completion
  - ▶ i.e., in the end, the model becomes a simple credit-claiming race (zero-sum game)
- 1. How much of the *surprising* welfare losses for matching  $p, q$  could be explained by the fact that players **cannot stop** the project even when  $wvs - \mathbb{T}c(s) < 0$
- 2. What are the welfare implications of allowing incumbents to abandon projects?
  - ▶ The current model extension only accounts for cancellations (never starting the project), but could it rationalize the emergence of these “White Elephants”?

### 3. On the political influence in $p$ and $q$ , and capacity building

1. Politicians also influence bureaucratic capacity and institutional rigidities directly (See, Spenkuch, Teso, Xu, 2023; Colonnelli, Prem, Teso, 2020)
2. But also, Incumbents might have different comparative advantages in completing projects relative to the opposition  $p^A \neq p^B$  (see, Fergusson, Larreguy, Riaño, 2022)
  - ⇒ Allowing for  $p^A, p^B, q^A, q^B$  with  $p^A \neq p^B, q^A \neq q^B$  would give us further implications in terms of inequality  $\Delta$  and project completion times  $\mathbb{T}$ ,
  - ⇒ Additional insights about the mechanisms behind these documented effects

#### 3. Bureaucracies are dynamic organizations

Introducing **learning**, capacity **depreciation** and strategic **capacity destruction** would help us to understand project stagnation and inequality further

- ▶ A simple addition for the extension with two stages: beyond costs, connect stages through an evolution rule of bureaucratic capacity such that  $p_2 = \alpha p_1$  with  $\alpha \gtrsim 1$

# Conclusion

- ▶ Great paper, novel theoretical contribution to understanding the effects of organizational capacity on public policy outcomes
- ▶ Lots of potential to analyze empirical contexts beyond the US
- ▶ I discussed potential refinements & extensions consistent with empirical literature
  1. Assumptions on no-discounting, common values, and costs that might be hard to match in empirical applications and that could lead to very different insights
  2. Potential extensions to understand the emergence of “white elephants.”
  3. Account for the direct influence of politicians on bureaucratic capacity and the evolution of organizational capacity over time



Thanks!

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Hundreds of steel bollards have sat unused since construction on Donald Trump's wall stopped in the Guadalupe Canyon, Arizona. (Adriana Zehbrauskas for The Atlantic)

POLITICS

## TRUMP'S BIG BORDER WALL IS NOW A PILE OF RUSTING STEEL

Worth at least a quarter billion dollars, the steel bollards are a relic of the Trump era.

◀ Back



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# Model insights

A dynamic theory of the effects of organizational capacity on public policy ◀ Model

## I. Benchmark: No transitions

1. Initiating politicians award themselves the entire benefit of the project,  $\Delta = 1$
2. High organizational capacity  $\Rightarrow$  no induced delays,  $\downarrow$  costs  $\Rightarrow \uparrow$  scale  $\equiv S^{NT}$

## II. Adding transitions but no scale limits

1. No revisions in equilibrium (well... at most one)
  - i.e., no induced delays since scale impact on costs is enough to prevent them
2. If organizational capacity  $p$  is
  - High  $\Rightarrow s = S^{NT}$ , initiator takes it all,  $\Delta = 1$
  - Mid  $\Rightarrow s > S^{NT}$ , over scaling, preventing revision, initiator takes it all,  $\Delta = 1$
  - Low  $\Rightarrow s < S^{NT}$ , under scaling, at most one revision if  $r < 1/2$ , distribution  $\Delta \leq 1$

# Model insights (Cont'd)

A dynamic theory of the effects of organizational capacity on public policy ◀ Model

## III. Adding transitions and scale limits

1. There exist a  $\bar{s}^{max}$  s.t. everyone revises distributions favorable to the opponent
  - ▶ Scale reaches a ceiling limit  $s^{max} \leq \bar{s}^{max}$  and inequality is maximal  $|\Delta| = 1$
2. *Surprisingly* higher capacity increases revisions and delays in equilibrium
  - ▶ As  $p$  increases, deterrence of revisions by increasing  $s$  gets harder

## IV. Welfare Implications and the Role of institutional constraints

1. Matching combinations of  $q, p$  lead to over-scaling and  $< 0$  welfare when  $r < 1/2$
2. The set of these combinations is larger as  $q$  increases

## V. Allowing for two phases

1. Stronger form of revision, scale in phase 1 is lower than the baseline model
2. There might be projects that never start (cancellations)