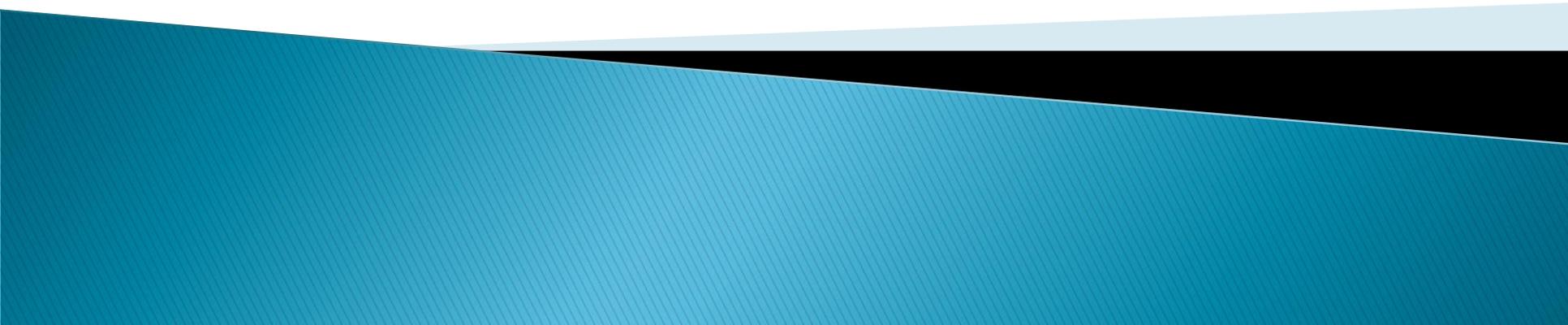


A Theory of Local Resource Allocation with Electoral Constraints

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Overview of Presentation

- ▶ Dissertation Overview
- ▶ Game Theoretic Model
 - Complete information (2 specifications)
 - Incomplete information possibilities
- ▶ Empirical Implications and Hypotheses
- ▶ Data and Measurement
- ▶ Conclusions

The Big Question

- ▶ How do institutional shifts shape mass and elite political behavior?
- ▶ More specifically:
 - How do decentralization reforms impact representation at the local level of government?
 - Two perspectives
 - Citizens
 - Elected officials (mayors and councilors)

The Dissertation Overview

▶ 1) Mass behavior

- Does decentralization shape citizen participation in and perceptions of local government?
- Data: Mass survey data (Americas Barometer)

The Dissertation Overview

▶ 2) Elite behavior

- How do decentralization and local politics constrain the strategic choices of elected mayors?
- Data: Elite survey and interviews from Ecuadorian counties

The Dissertation Overview

▶ 3) Assessing representation

- How can we assess the quality of local representation and its relationship to decentralization?
- Data: Elite and mass survey data from Americas Barometer and Ecuador

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Elite Behavior: EITM Approach

- ▶ Theoretical model:
 - Decision making
- ▶ Statistical model
 - Discrete choice
- ▶ Theoretical analogue:
 - Utility maximization (game theory)
- ▶ Statistical analogue:
 - Logistic regression

Decentralization Background

- ▶ Political
 - Local elections
 - Party and electoral competition
- ▶ Administrative
 - “Competencies” or responsibilities for the provision of public goods
- ▶ Fiscal
 - Transfer or own source revenue

Given fiscal decentralization, how does political decentralization shape administrative decentralization (public goods provision)?

The Elite Behavior Puzzle

- ▶ Mayors have two representational roles
 - 1) Administrators – produce public works
 - 2) Politicians – get re-elected
 - Resource allocation is an administrative task with political implications
- ▶ How do politics shape and constrain administrative behaviors?
 - Case of resource allocation
 - Investment of fiscal resources (transfers or own source revenue) in either private or public goods

Resource Allocation

▶ Discretionary Funds

- Own source revenues or non-targeted transfers

▶ Public Goods

- Basic services (water, sanitation, solid waste)
- Education and health care (supportive role)
- Transportation (streets, car registration)
- Sidewalks, parks, and public spaces

▶ Private Goods

- Jobs and contracts
- Audiences and access
- Tangible assistance—food, shelter, medicine

Theory: Intuitions

- ▶ Elections are a mechanism of accountability
- ▶ Mayors care about getting re-elected
- ▶ Citizens care about receiving benefits from either public or private goods
- ▶ Capacity matter (personal and situational)
- ▶ Political preferences matter (to a certain extent)

Theory: The Mayor

- ▶ Maximize utility over payoff parameters
 - The value of holding office: λ_M
 - The administrative and personal cost of providing a public or private good is inversely related to capacity: $1/\delta_{Mj}$ where (i =public and j =private)
- ▶ Choice Set:
 - Invest one additional unit into providing a public good or a private good
 - Note: The mayor's capacity to deliver the public good (δ_{Mi}) can differ from the private good (δ_{Mj})

Theory: The Voter

- ▶ Maximize utility over payoff parameters:
 - The benefit to the citizen of the public good: θ_{vi}
 - The benefit to the citizen of a private good: θ_{vj}
 - The multipliers for the capacity of the mayor to provide the good: δ_{Mi} and δ_{Mj}
 - The status of the citizen as in (or out) of the mayor's support coalition: $l_v = \{-1, 1\}$
 - The percentage of goods remaining: φ_v
- ▶ Choice Set:
 - The voter (pivotal voter) chooses whether to retain or replace the current mayor

Complete Information Game

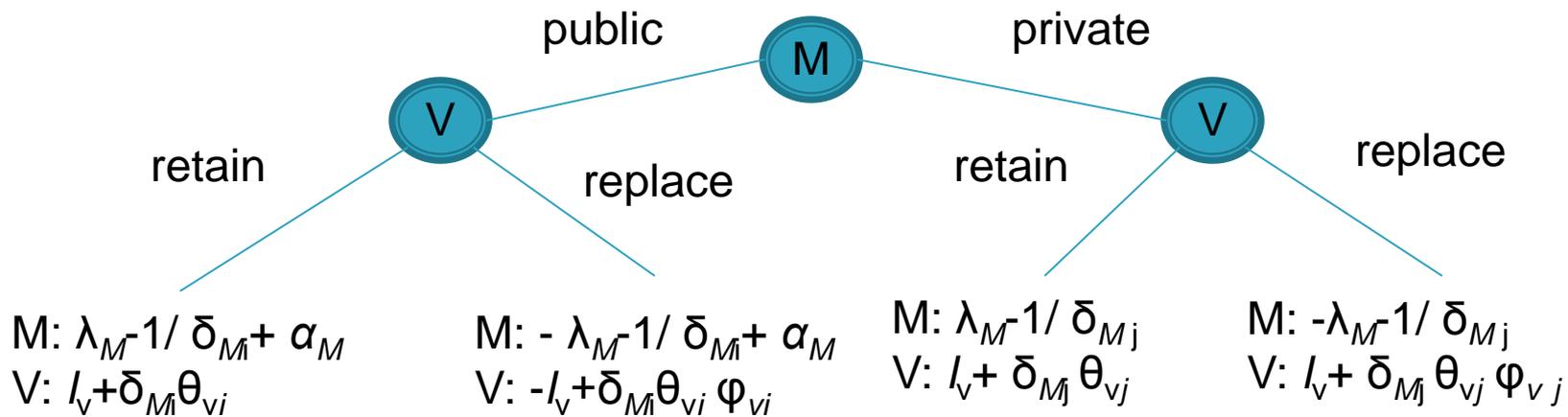
▶ *Players:*

- A mayor (M) and the pivotal voter (V)

▶ *Actions:*

- M: {private, public} where the mayor chooses to invest one additional unit in either public or private goods
- V: {retain, replace} where the voter chooses whether to retain or replace the mayor

Game Tree



Assumptions

- ▶ “Perfectly crass politicians”
 - Mayors do not have a personal preference between private and public goods—expect related to capacity and administration
- ▶ “Equally crass voters”
 - Voters only care about policy in so much as they approve of the mayor
 - Incorporating spatial components?
- ▶ Complete Information
 - Both mayor and voter know each other’s payoffs

Equilibria Cases

- ▶ If $I_v = 1$ (median voter supports mayor)
 - Voter will choose to retain the mayor (dominant strategy)
 - Mayor will choose between public and private goods based on how their capacity and administrative reward
- ▶ If $I_v = -1$ (median voter opposes mayor)
 - Voter will choose to replace the mayor if
 - $\phi_v < (2 / \delta_M \theta_v) - 1$
 - Voter will choose to retain the mayor if
 - $\phi_v > (2 / \delta_M \theta_v) - 1$

The Unpopular Mayor

- ▶ When the voter is clearly not a part of the mayor's coalition ($\beta = -1$) :
 - Equilibrium strategy is to replace him/her
 - Except in the case where the Mayor provides either a public good or a private good with high capacity
 - Private goods to non-coalition members?

Providing goods can overcome unpopularity

Can doing nothing overcome popularity?

The Administrative Mayor

- ▶ In equilibrium, the mayor's strategy depends on his/her capacity for provide the good.
- ▶ Specifically, the mayor chooses public when
 - $a > (1/d) - (1/v)$
 - Administrative incentives change the decision calculus for the mayor away from just doing whatever is easiest.

Implications for the impact of decentralization on responsiveness?

The Clientelistic Mayor

- ▶ Administrative rewards deter the provision of private goods, but not always.
- ▶ The cost of providing the private good relative to the public good is sufficiently low

This happens when:

- ▶ Low capacity of the mayor
- ▶ Low administrative reward
 - Amazonian counties

Incomplete Information

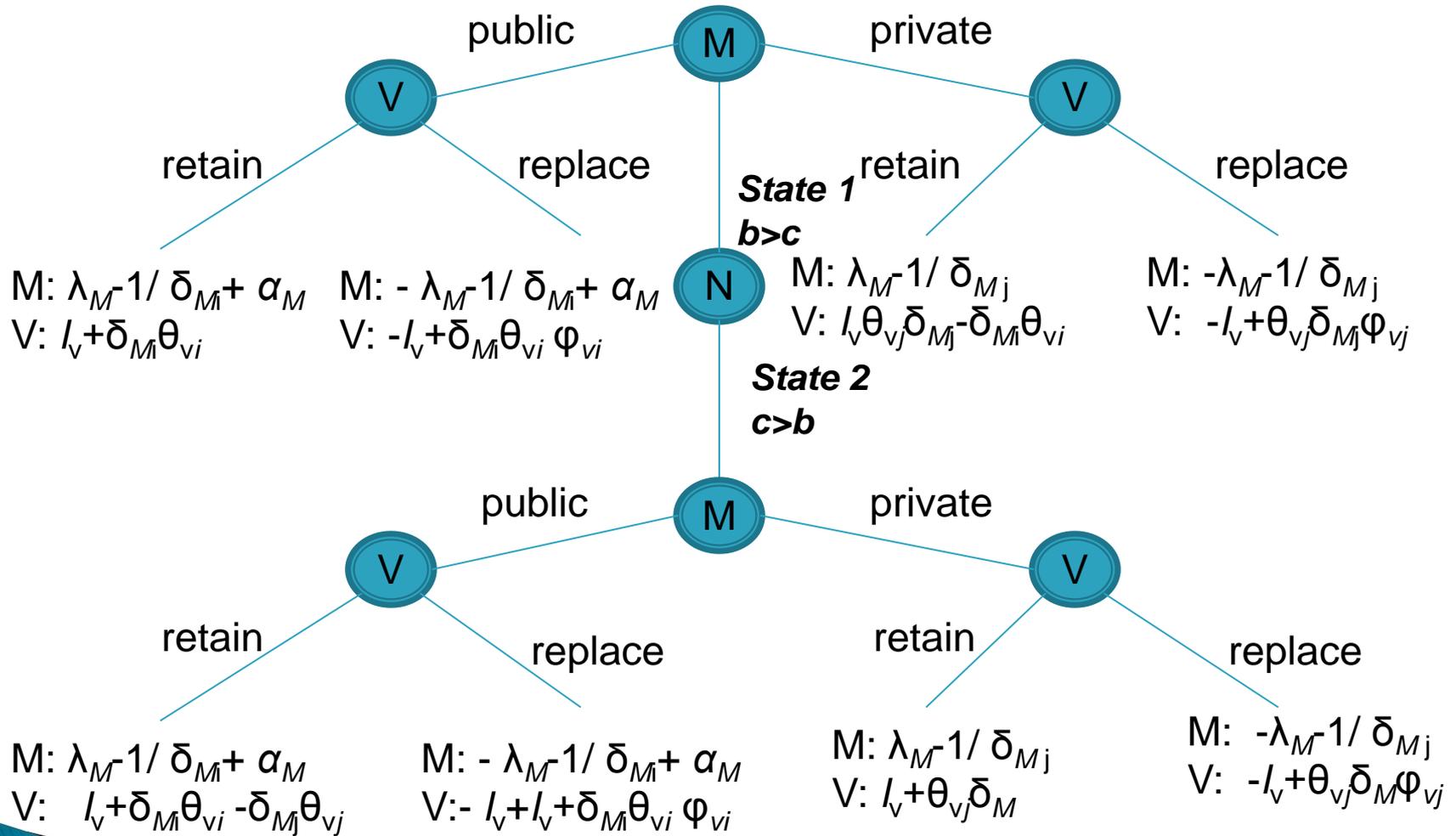
▶ *States:*

- State 1: $b > c$
- State 2: $c > b$

▶ *Beliefs:*

- M assigns some probability p to being in State 1 of the world where $b > c$ and $1 - p$ to being in State 2 of the world.
- V knows the true state of the world in which the game is being played.

Incomplete Information Alternative



Other Theoretic Modifications

- ▶ Voter is uncertain
 - Uncertainty about the mayor's capacity
 - Uncertainty about the future of good's provision
- ▶ Unite the utility of the voter with the utility of the mayor
 - Decision theoretic model that accounts for the capacity of the challenger to the mayor
 - Spatial model for mayor and voter

Empirical Implications

- ▶ The probability that the mayor provides a public (or private) good is positively related to his/her capacity for providing that type of good.
 - *It is less costly for mayors who are trained engineers or lawyers to provide public goods. (Teodoro forthcoming, Avellaneda 2012)*
 - *The capacity to provide private goods is related to membership in the landed elite or a major party (Faust and Harbers 2012)*

Hypotheses

▶ Capacity

- H1 a: Mayors with great capacity for providing public goods will have an increased probability of investing in public goods.
- H1 b: Mayors with great capacity for providing private goods will have an increased probability of investing in private goods.

▶ Clientelism

- H2: Mayors with small administrative rewards will be more like to provide the private goods (and vice versa)

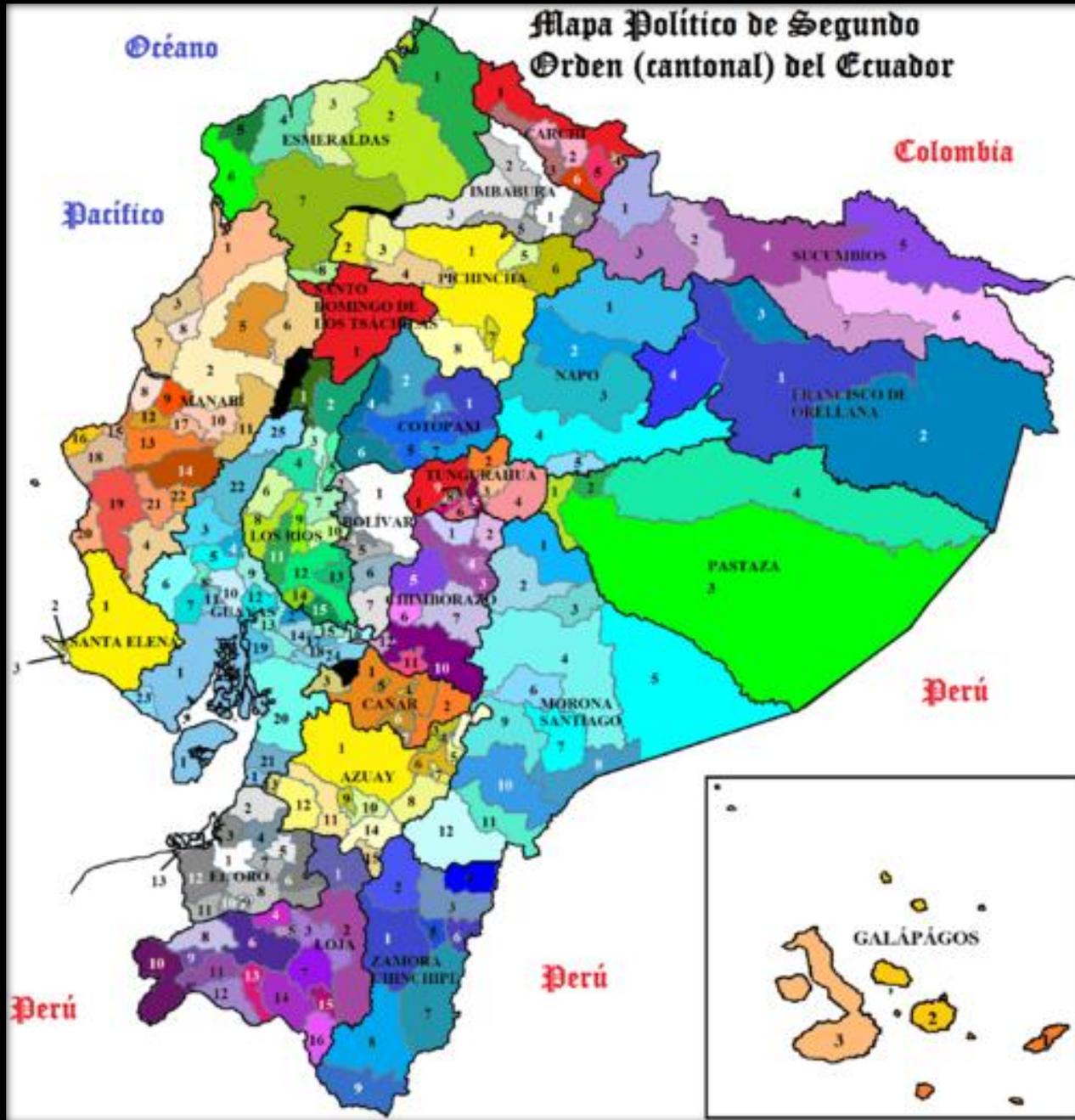
Hypotheses

- ▶ Unpopular mayor
 - Electoral success of the mayor increases as the amount of goods provided increases
 - Mayors that are unpopular have an increases probability of continuing in office if they are capable and provide goods.
- ▶ Administrative mayor
 - Mayors with any (non-zero) capacity for providing a public good will have an increased chance of doing so as the rewards for doing so increase.

Data and Case Selection

- ▶ Local officials (mayors and vice-mayors) in Ecuador
 - Moderately decentralized as a whole
 - Reputation for clientelism / private goods
 - Variation in capacity and level of administrative decentralization
- ▶ Types of Data
 - Interview (Semi-structured)
 - Survey data (closed-ended)
 - County-level budgetary data (income & expenditure)

Mapa Político de Segundo Orden (cantonal) del Ecuador



Interview and Survey Data



Operationalization

▶ Dependent variable

- Concept: Do investments in public goods exceed investments in private goods?
- Data: Budgetary options (investment/payroll expenditures)

▶ Independent variables

- Desire for office—answer to interview question
- Capacity—occupational and party proxies
- Mass preference for public goods—survey data
- Mayor's coalition—survey data

Estimation Strategy

- ▶ $Y_{Pr(Public)} = \beta(\text{holding office}) + \beta(\text{public goods capacity}) + \beta(\text{private goods capacity}) + \beta(\text{administrative incentives}) + \epsilon$
- ▶ $Y_{Pr(Retain)} = \beta(\text{mayor's coalition}) + \beta(\text{value of public goods} * \text{public capacity}) + \beta(\text{value of public goods}) + \beta(\text{public capacity}) + \beta(\text{private goods valuation} * \text{private capacity}) + \beta(\text{value of private goods}) + \beta(\text{private capacity}) + \epsilon$

Estimation Strategy

- ▶ Statistical Backwards Induction (SBI) or Quantal Response Equilibrium (QRE)
 - Bas et al (2008)
 - Signorino (1999)
- ▶ Discrete choice modeling that incorporates the strategic interaction
 - SBI is for recursive extensive for games

Conclusions

- ▶ Future of project
 - Fine tune empirical model
 - Estimation of empirical model
- ▶ Future research
 - What the implications of the model for government responsiveness at the local level?
 - Implications for mass preferences
 - Mayoral re-election

A scenic landscape featuring a wide river in the foreground, a dense forest of dark green trees on the banks, and rolling mountains in the distance. The sky is filled with dramatic, grey clouds, with a bright sun breaking through on the left side, creating a shimmering reflection on the water's surface. The overall mood is serene and majestic.

Thank you!