# Takings of Land by Self-interested Governments Economic Analysis of Eminent Domain Law

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Part 1

# Eminent Domain (Takings) Law

The Eminent Domain Laws:

- Empower the executive and its agencies to take away private property
  - for public purpose, and
  - for private projects (to different degrees)
- Entitle the affected property owners to compensation for land and other investment in their property
- The government takes the takings decision and makes the compensation offer.
- The affected owners
  - can accept the decision and compensation; Or
  - In several jurisdictions, the owners can seek restitution of their property - Judicial Review of the Taking Decisions

# Existing Literature: Limitations I

Existing Literature on Eminent Domain (See, Blume and Rubinfeld (1984), Krier, Serkin, and Merrill (2005), Miceli (2011)) :

- Assumes that decisions of property owners as well as Government agencies are guided by the compensation amount.
- That is, applies models of Civil Liability to examine behaviour of Government and Property owners
- Full compensation is suggested as the way to curb the problem of misuse (Fiscal Illusion)
  - Less than full compensation excessive takings by Govt
  - Full compensation efficient number of takings
- The role of Judicial Review of government's decision is not analyzed.

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### Government's Decision-making I

- Public Choice Literature: Government decision are not solely guided by the associated costs
  - See Cohen (1990), Garnett (2006), Brennan and Boyd (2009), Levinson (2000).
  - For survey see Fischel (2015).
- State Liability literature also shows that the resultant costs cannot explain the state's decision making

"We might better direct our efforts to designing effective "political" markets instead of attempting to use economic signals to influence state and bureaucratic action". Cohen (1990)

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# Government's Decision-making II

"Government does not internalize costs in the same way as a private firm. Government actors respond to political incentives; not financial ones-to votes; not dollars." Levinson (2000)

- Empirical literature on Eminent Domain also shows that political considerations play major role in government's decisions. See
  - Israel Levine-Schnur 2017
  - The USA Somin 2015; Garnett 2006; Boudreaux 2005
  - India Singh 2012

# Eminent Domain: Less-than-full Compensation I

#### **Full Compensation:**

According to the Differential method for calculating the damage in civil liability

#### **Eminent Domain Compensation**

- The UK Compulsory Purchase Code (2002): ... the right [of the owner] to .... gains a money payment not less than the loss imposed on him in the public interest, ...
- US Constitution Fifth amendment (1791): Nor shall private property be taken for public use, without just compensation.
- Indian Law Land Acquisition Act, 1894, and LAAR 2013 provided for: Market value compensation for the affected owners *Plus* solatium

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# Eminent Domain: Less-than-full Compensation II

- German Constitution: "Such compensation shall be determined by establishing an equitable balance between the public interest and the interests of those affected." Art. 14 (3)
- French Law 'sur les expropriations pour cause d'utiZit publique' provides for Market Value (See Rogers (1979))
- Republic of Korea "just compensation" (Art. 23,3)
- UN resolution on the "New International Economic Order": "just compensation"

#### Legal rationale for less than full compensation

- Civil liability is for a wrongful act and therefore demands full compensation
- Eminent Domain Taking: is a legal act of the state in public interest, for which the affected citizen might also contribute

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#### Controversies over Eminent Domain: US I



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### Controversies over Eminent Domain: US II



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#### Land protests bring Delhi to standstill

August 26, 2010



new road in a demonstration that highlights the difficulties of building infrastructure in India. The farmers, most lin traditional while derss, gathered near the national pariament in the airly afternoon to listen to speeches from the leaders of the movement. They came from the northern state of Utar Pradesh to protest against what they perceive as a land grab to build a new highway between Agra.

#### THE ECONOMIC TIMES

#### Politics and Nation

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You are here: Home > Collections > Farmers									
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Rahul Gandhi on dharna with Greater Noida	LUCKNOW/NEW DELHI: Violent protests by farmers against forcible land acquisition continued for the second consecutive day in Greater Noida, and spread to other parts of western Uttar Pradesh, including Agra								

May 12, 2011

# The Indian **E**

#### Anna protests against Land Acquisitio

By: Press Trust of India | New Delhi | Updated: February 23, 2015 7:25 pm



Hazare said he will not allow AAP or Congress to share stage with him at the protest venue an parties can join it as part of common people.

#### Takings of Land

Part 1 10 / 24

# **THIS LAND IS OUR LAND**

The Land Acquisition Bill becomes a hot potato against a backdrop of farmer strife poe-11





A recent rally in New Delhi to protest the Land Bill

Part 1 11/24



Part 1 12 / 24

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### In our paper I

We ask:

Question

Can full compensation ensure that takings are in public interest?

Question

Can less than full compensation be justified on grounds of efficiency?

#### Question

Can Judicial Review of government decision - Injunction/ Restitution of condemned properties ?

Part 1

14/24

### In our paper II

We provide a model of use of Eminent Domain power, with following features:

- behaviour of the government actors is also guided by their self-interests
- the (probability of) takings decision depends on investments made by the owners
- there is judicial review of the takings decisions

We examine the outcomes under various settings

### Results

#### 'Public Purpose' Takings:

- Under full compensation, the outcome cannot be efficient even with provision of the judicial review:
  - Politically preferred but socially inefficient projects will be taken up
  - Investment choices will be inefficient
  - the proportion of inefficient takings can increase with budget constraints
- Less-than-full compensation with provision of Restitution: We show that under 'reasonable' conditions,
  - Investment choices will be relatively efficient
  - All takings result in improved social welfare
  - However, the First Best cannot be achieved

#### 'Private Purpose' Takings:

• Full compensation can be desirable only for 'private purpose' takings.

#### **Time-line**

- *t* = 0: Constitutional and sub-constitutional laws related to Eminent Domain and Judicial Review are made.
- t = 1: Owners choose investment levels
- t = 2: Government makes the following (Takings) decisions:
  - Whether to use Eminent Domain (ED) or not Compensation is paid, if ED is used
  - If yes, for which project public park, slip road, or golf course?
- t = 3: Action for restitution Judicial Review: Litigation over legality of the taking, (if any)

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### Model I

- A neighborhood can be under consideration for taking
- The neighborhood consists of I homogeneous properties of same size
- Different properties are owned by different owners

Let

- $x_i$  denote the (self-interested) investment made by owner i = 1, ..., I
- $v_i(x_i)$  be the value of the property to owner *i*,

$$v_i = v_i(x_i), \ v'_i(\cdot) > 0, \ v''_i(\cdot) < 0.$$

If Takings happen, all / properties will be taken

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#### Model

#### Model II

• P projects are possible. Let,

$$\mathbb{P} = \{1, 2, \dots, P\} \tag{4.1}$$

be the set of feasible projects.

- Public-Park, Slip-road, or Golf-course
- However, only one of these projects can be taken up.
- $\beta_p^S$  be the social benefit from project  $p = 1, \dots, P$ .
- $\beta_p^S$  depends on the state of nature at t = 2,
- $\theta$  denotes the state of nature at t = 2,

$$\theta \in [\underline{\theta}, \overline{\theta}], \ \underline{\theta} < \overline{\theta}$$

• At t = 1,  $\theta$  is a random variable.

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#### Model

# Model III

Let

- $\mathbf{x} = (x_1, \dots, x_l)$  be any given profile of investments.
- π<sup>S</sup><sub>p</sub>(θ, x) denotes the net social gains from project p ∈ P, for given θ and x. Clearly,

$$\pi_{p}^{S}(\theta, \mathbf{x}) = \beta_{p}^{S}(\theta) - \sum_{i=1}^{l} v_{i}(x_{i})$$

$$\pi^{S*}(\theta, \mathbf{x}) = \beta^{S*}(\theta) - \sum_{i=1}^{l} v_{i}(x_{i}),$$
(4.2)

where  $\beta^{S*}(\theta) = \max\{\beta^{S}_{p}(\theta) | p \in \mathbb{P}^{S+}\}$ 

If  $\beta^{S*}(\theta) = \beta^{S}_{\hat{p}}(\theta)$ , the  $\hat{p}$ th project is most efficient one. Let

$$\mathbb{P}^{S+}(\theta, \mathbf{X}) = \{ \boldsymbol{p}' | \boldsymbol{p}' \in \mathbb{P} \& \pi_{\boldsymbol{p}'}^S > \mathbf{0} \}$$

$$(4.3)$$

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#### First Best I

At t = 2, feasible projects are

PublicPark, Sliproad, Golfcourse

If given  $\theta$ ,  $\beta_P^S(\theta) > \beta_S^S(\theta) > \beta_G^S(\theta)$  then  $\beta^{S*}(\theta) = \beta_P^S(\theta)$ .

Now, at t = 2,  $\mathbf{x} = (x_1, x_2, ..., x_l)$  is given, so

• Taking should happen iff  $\theta$  is such that  $\beta^{S*}(\theta) > \sum_{i=1}^{l} v_i(x_i)$ , i.e.,

$$\theta \in \Theta^*(\mathbf{x}) = \{\theta | \beta^{S*}(\theta) - \sum_{i=1}^l v_i(x_i) > 0\}$$
(4.4)

Without loss of generality, let  $\frac{\partial \beta^{S*}}{\partial \theta} > 0$ , and let  $\theta \sim F$ .

Note: An increase in Investment levels

increases individual welfares if takings does not occur

#### Model

#### First Best II

reduces the probability of takings by increasing the opportunity cost

• Define 
$$\hat{\theta}(\mathbf{x}) = \{ \theta \in \Theta | \beta^{S*}(\theta, \mathbf{x}) = \sum_{i=1}^{l} v_i(x_i) \}.$$

- Therefore,  $\theta \in [\hat{\theta}(\mathbf{x}), \bar{\theta}] = \Theta^*(\mathbf{x}) \iff \pi^{\mathcal{S}*}(\theta, \mathbf{x}) > 0.$
- Therefore, taking should happen iff  $\theta \geq \hat{\theta}(\mathbf{x})$

At 
$$t = 1$$
,  $\mathbf{x} = \{x_1, x_2, \dots, x_l\}$  solve:  

$$\max_{x_1, x_2, \dots, x_l} \left\{ F(\hat{\theta}(\mathbf{x})) \sum_{i=1}^l v(x_i) + \int_{\hat{\theta}(\mathbf{x})}^{\overline{\theta}} \beta^{S*}(\theta) f(\theta) d\theta - \sum_{i=1}^l x_i \right\}$$

$$\max_{\mathbf{x}} \left\{ F(\hat{\theta}(\mathbf{x})) \sum_{i=1}^l v_i(x_i) + [1 - F(\hat{\theta}(\mathbf{x}))] E[\beta^{S*}(\theta)|\theta \ge \hat{\theta}(\mathbf{x})] - \sum_{i=1}^l x_i \right\}$$
(4.5)

### First Best III

The first order conditions reduce to the following:

$$F(\hat{\theta}(x_i, x_{-i}))v'(x_i) - 1 = 0 \quad \forall i = 1, 2, \dots, I$$
(4.7)

Note:

Given the homogeneity of land parcels and their owners, the optimum investment choices would also be identical, i.e., (x<sub>1</sub><sup>\*</sup>, x<sub>2</sub><sup>\*</sup>, ..., x<sub>l</sub><sup>\*</sup>) = (x<sup>\*</sup>, x<sup>\*</sup>, ..., x<sup>\*</sup>).

• Let, 
$$(x^*, x^*, \dots, x^*) \equiv \mathbf{x}^*$$
.

• *x*<sup>\*</sup> uniquely solves the following optimization problem:

$$\max_{x} \{ F(\hat{\theta}(\mathbf{x}^*)) v(x) - x \}.$$

• That is, *x*\* uniquely solves the following first order condition:

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#### Model

#### First Best IV

$$F(\hat{\theta}(\mathbf{x}^*))v'(x) - 1 = 0 \tag{4.8}$$

So in the First Best:

- the optimum investment choices are identical i.e.  $x_i = x^*$
- investment take into account that the taking can happen
- Government opts for the best possible project
- takings happens if and only if  $\theta \in \Theta^*(\mathbf{x}^*)$ , where

$$\Theta^*(\mathbf{x}^*) = \{\theta | \beta^{\mathsf{S}*}(\theta) > I\nu(x^*)\} = [\hat{\theta}(\mathbf{x}^*), \bar{\theta}]$$
(4.9)

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