A Theory of Political Transitions[1]

Acemoglu and Robinson (AER, 2001) summary by N. Antić

A model for of political transitions is provided to explain why some countries are democracies while others persistently are not and why attempts at democracy are not always sustainable.

Leading Empirical Facts

■ In democracies, the poor can impose higher tax rates on the rich; the rich therefore may have an incentive to oppose democracy and mount a coup

■ In non-democracies, the poor are excluded from political power, but can pose a (transitory) revolutionary threat, by forcing the rich to make concessions

■ Regime changes are more likely during recessionary periods

Basic Model

■ There are 2 groups of agents:

- poor (denoted by superscript p), and
- elite or rich (denoted by superscript r)

■ There are 2 political states:

- **Democracy** – The median voter (a poor agent by assumption) sets the tax rate; the rich can mount a coup
- **Nondemocracy** – Taxes are set by the rich; the poor can attempt a revolution and the elite can decide whether to establish democracy

■ Income in the economy is stochastic and opportunity cost of coups and revolutions changes with income

- This captures the notion that some periods, such as recessions, may be more conducive to social and political unrest
- Furthermore, those in power cannot commit to future tax rates

■ There is a single consumption good y and a capital asset with total stock h

■ Infinite number of time periods and a continuum of agents

- the poor make up a proportion $\lambda > \frac{1}{2}$, thus in full democracy the median voter is poor
- all poor and rich agents will be defined by a single representative agent

■ At $t = 0$ the elites have political power, the poor agent has exogeneous capital h^p and the rich agent has $h^r > h^p$

- To parameterize inequality, let

$$h^r = \frac{(1-\theta)h}{1-\lambda} \text{ and } h^p = \frac{\theta h}{\lambda},$$

where $\lambda > \theta > 0$, so that lower θ implies higher inequality

■ The production function of an agent type $i \in \{p,\, r\}$ is

$$y_t^i = A_t h^i$$

- A_t is the aggregate productivity and takes two values

$$A_t = \begin{cases} A^h = 1 \text{ with probability } 1 - s \\ A^l = a \text{ with probability } s \end{cases},$$

where $A^l = a < 1$ is a "recession" and A^h is "normal" times

- Assume that $s < \frac{1}{2}$, so that recessions are relatively rare

■ Recessions change the opportunity cost of coups to rich agents in a democracy and of revolutions to poor agents in a nondemocracy

■ The preferences of agent type $i \in \{p,\, r\}$ are:

$$\mathbb{E}_t \left[\sum_{j=0}^{\infty} \beta^j C_{t+j}^i \right],$$

where C_t^i is the consumption of agent i at time t, $\beta < 1$ is a discount factor, $\mathbb{E}_t$ is the expectations operator conditional on time t information

- Post-tax income is:

$$y_t^i = (1 - \tau_t) A_t h^i + T_t^i,$$

where $\tau_t \geq 0$ is the tax rate on income, T_t^i is the lump-sum transfer that an agent of group i receives from the state

■ Assume that it is *costly to raise taxes*

- At tax rate τ_t there is a deadweight cost of $c(\tau_t) A_t h$, where $c \in C^2([0,1])$ and $c(0) = 0$, $c'(0) = 0$, $c'(\tau) > 0$ for all $\tau > 0$, and $c'' \geq 0$
- The government budget constraint implies:

$$T_t = \tau_t A_t(\lambda h^p + (1 - \lambda) h^r) - c(\tau_t) A_t h = (\tau_t - c(\tau_t)) A_t h$$

Transition Dynamics and Timing

■ Society starts in nondemocracy; poor can attempt a revolution in any period $t \geq 1$

- Revolution is always successful if a sufficient portion, $\xi^p \leq 1$, of the poor participate
- Importantly the *revolution is permanent*; after a revolution, the poor expropriate an additional fraction equal to $\pi - \theta$ of the asset stock of the economy
- A fraction $1 - \mu > 0$ of the economy's income is destroyed during the revolution, so each agent receives $\frac{\mu \pi A_t h}{\lambda}$ in the first period, followed by a per-period return of $\frac{\pi A_t h}{\lambda}$
  - The rich lose everything in a revolution so they will always try to prevent it
  - Small μ means revolution is costly; small π means returns from revolution are low
  - Rich can enfranchise the poor without a revolution – regime changes to democracy and the median voter sets the tax rate

■ In democracy the elite can mount a coup, which is always successful if a sufficient fraction, $\xi^r \leq 1$, participate

- A coup destroys a certain fraction $1 - \phi$ of all agents' income and returns society to the status quo with the elite in power

- Agent i's income in the event of a coup is $\phi A_t h^i$

■ In each period of the game the following happens:

1. The state $A_t \in \left\{A^h, A^l\right\}$ is revealed
2. If there has been a revolution in any past period, the poor receive their share of the income, consumption takes place, and the period ends
3. The group in power sets the tax rate τ_t
4. The rich decide whether or not to extend the franchise (in a non-democracy) or whether or not to mount a coup (in a democracy)
   - if they extend franchise or mount a coup, the party that comes to power decides whether to keep the tax rate set at stage 3 or to set a new rate
5. In a nondemocratic regime, the poor choose whether or not to start a revolution
   - if there is a revolution, they share the surviving output of the economy, otherwise the tax rate from stage 3 or 4 remains
6. Consumption takes place and the period ends

Equilibrium

■ Use Markov perfect equilibrium as solution concept

- i.e., strategies depend only on the current state of the world and the prior actions taken within the same period
- The possible states S are

$$(A, D), \ (A, E), \text{or } (A, R),$$

where $A \in \left\{A^h, A^l\right\}$ and E, D and R denote elites in power, democracy and revolution respectively

■ The strategy of the elite is denoted by $\sigma^r(S \mid \tau^p)$ which is a function of the state of the world S and the taxation decision by the poor if $S = (A, D)$

- This strategy determines the elite's actions, given by $\{\gamma, \zeta, \tau^r\}$, where γ is the decision whether or not to extend the franchise in a state (A, E) ($\gamma = 1$ indicates extension of the franchise), ζ is an indicator variable for coup in state (A, D) and τ^r is the tax rate set by the elite in state (A, E) after $\gamma = 0$ or state (A, D) after $\zeta = 1$

■ The strategy of the poor is indicated by $\sigma^p(S \mid \gamma, \tau^r)$ which is a function of the state of the world, the decision of the rich whether to extend the franchise and the tax rate of the elite when they are in power

- This strategy determines the poor's actions, given by $\{\rho, \tau^p\}$, where ρ is an indicator variable for revolution and τ^p is the tax rate set by the poor in state (A, D).

■ Transitions between states are summarised below:

- If $S = (A, E)$ and there is a revolution ($\rho = 1$), then transition to (A, R), which is an absorbing state (revolution is permanent).
- If $S = (A, E)$ and $\rho = 1$, then if $\gamma = 0$, the state remains at (A, E), and if $\gamma = 1$, the state transitions to (A, D).
- If $S = (A, D)$ and there is a coup ($\zeta = 1$), then the state transitions to (A, E).

■ A pure strategy Markov perfect equilibrium is a strategy pair $\{\widehat{\sigma}^r(S \mid \tau^p), \widehat{\sigma}^p(S \mid \gamma, \tau^r)\}$ such that $\widehat{\sigma}^r$ and $\widehat{\sigma}^p$ are best responses to each other for all possible states S

- Agents are not myopic – they maximize their total future welfare, conditional on equilibrium Markov perfect actions by both players

Results

■ The main theorem goes on to construct Markov perfect equilibria under the following assumptions:

| A1 | a coup is never profitable when $A_t = A^h$
| A2 | a revolution is never profitable when $A_t = A^h$
| A3 | democratization will always prevent revolution

■ [*Proposition 1*] Under A1-A3, the equilibria construced have the following properties:

- If the cost of revolution is too high $\mu < \mu^*$ (for some value μ^*), then the society remains nondemocratic forever
- If $\mu > \mu^*$ and coups are excessively costly $\phi < \phi^*$ (for some value ϕ^*), then the society democraticises in the first recessionary period and ϕ is sufficiently low so that a coup is never profitable for the rich, regardless of the tax rate set by the poor (a fully-consolidated democracy)
- If $\mu > \mu^*$ and coups are moderately costly $\phi^* < \phi < \phi'$ (for some value ϕ'), then the society democraticises in the first recessionary period and ϕ is sufficiently low so that a coup is not profitable if the poor set a low enough tax rate when $A_t = A^l$ (a semi-consolidated democracy)
- If $\mu > \mu^*$ and coups are cheap $\phi > \phi'$, then the society switches between democracy and nondemocracy (an unconsolidated democracy)

Consolidating Regimes

■ The paper continues on to discuss how democratic and nondemocratic regimes may be consolidated

■ A democracy can be consolidated through asset redistribution

- Asset inequality determines taxes in democracy and these affect the costs and benefits of coups
- Reducing asset inequality reduces long-run benefits of a coup, since democracy will be less redistributive in the future
- However, anticipated asset redistribution creates a short-run incentive to undertake a coup
- Constitutional limits on taxation and political institutions may be useful in consolidating democracy

■ A nondemocracy may also be consolidated through redistribution of capital assets

- Since reducing inequality increases the loss the poor will incur during revolution (through μ)

■ A nondemocracy may also be consolidated through repression

- Hiring an army to repress potential revolutions may be more profitable than extending franchise and redistribution if society is extremely unequal