A Theory of Political Transitions
Acemoglu and Robinson (AER, 2001) summary by N. Atri

A model for 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
  - Non-democracy - 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
    \[
    h^r = \frac{(1-\theta)h}{1-\lambda} \quad \text{and} \quad h^p = \frac{\theta h}{\lambda},
    \]
    where \( \lambda > \theta > 0 \), so that lower \( \theta \) implies higher inequality
- The production function of an agent type \( i \in \{ p, r \} \) is
  \[
  y^i_t = A_t h^i_t
  \]
- \( A_t \) is the aggregate productivity and takes two values
  \[
  A_t = \begin{cases} \[ h^b_t = 1 \text{ with probability } 1-s \\ A^r_t = a \text{ with probability } s \end{cases} ,
  \]
  where \( A^r_t = a < 1 \) is a "recession" and \( A^b_t \) 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:
  \[
  E_t \sum_{j=0}^{\infty} \beta^j C^i_{t+j} ,
  \]
  where \( C^i_t \) is the consumption of agent \( i \) at time \( t \), \( \beta < 1 \) is a discount factor, \( E_t \) is the expectations operator conditional on time \( t \) information
  - Post-tax income is:
    \[
    y_t^i = (1-\tau_t)A^i_t h^i_t + T^i_t ,
    \]
    where \( \tau_t \geq 0 \) is the tax rate on income, \( T^i_t \) 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 \( \tau_t \) there is a deadweight cost of \( c(\tau_t) A_t h^r \), where \( c \in C^2 ([0,1]) \) and \( c(0) = 0, c'(0) = 0, c'(\tau) > 0 \) for all \( \tau > 0 \), and \( c''(\tau) \geq 0 \)
  - The government budget constraint implies:
    \[
    T_t = \tau_t A_t (\lambda h^p + (1-\lambda) h^r) - c(\tau_t) A_t h = (\tau_t - c(\tau_t)) A_t h
    \]
  - \( \hat{\lambda} \) is the time spent in a recession

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 \( \frac{\mu \pi A_t h}{A} \) in the first period, followed by a per-period return of \( \frac{\pi A_t h}{A} \)
    - The rich lose everything in a revolution so they will always try to prevent it
    - Small \( \mu \) means revolution is costly; small \( \pi \) 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, \( \xi^* \leq 1 \), 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

1 This summary is very descriptive in nature and does not contain detailed proofs; it provides an overview of the model and qualitative results
In each period of the game the following happens:

1. The state $A_t \in \{A^h, A^l\}$ 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 $\tau_t$.
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 $\{(A, D), (A, E), (A, R)\}$.
  - where $A \in \{A^h, A^l\}$ and $E, D$ and $R$ denote elites in power, democracy and revolution respectively.

- The strategy of the elite is denoted by $\sigma^e(S \mid \tau^p)$ 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 $\{\gamma, \zeta, \tau^e\}$, where $\gamma$ is the decision whether or not to extend the franchise in a state $(A, E)$ ($\gamma = 1$ indicates extension of the franchise). $\zeta$ is an indicator variable for coup in state $(A, D)$ and $\tau^e$ 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 $\sigma^p(S \mid \gamma, \tau^p)$ 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 $\rho$ is an indicator variable for revolution and $\tau^p$ 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 $\{\hat{\sigma}^e(S \mid \tau^p), \hat{\sigma}^p(S \mid \gamma, \tau^p)\}$ such that $\hat{\sigma}^e$ and $\hat{\sigma}^p$ 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:

- A coup is never profitable when $A_t = A^h$.
- A revolution is never profitable when $A_t = A^h$.
- Democratization will always prevent revolution.

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

- If the cost of revolution is too high $\mu < \mu^*$ (for some value $\mu^*$), then the society remains nondemocratic forever.
- If $\mu > \mu^*$ and coups are excessively costly $\phi < \phi^*$ (for some value $\phi^*$), then the society democratises in the first recessionary period and $\phi$ 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 $\phi'$), then the society democratises in the first recessionary period and $\phi$ 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 $\mu$).

- 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.