

# POLITICAL ECONOMY FIELD EXAM

August 17, 2012

Please answer both questions. Each question will be graded equally. You have three hours to complete the exam.

## 1. Electoral rules and Policy Outcomes

- (a) Consider a society with three distinct groups of voters, denoted  $J = 1, 2, 3$ . Each group has a continuum of voters with unit mass. Preferences over

$$W^J = u(c^J) + H(g) = u(1 - \tau + f^J) + H(g).$$

Here,  $c^J$  is the private consumption of the average individual in group  $J$ ,  $\tau$  is a common tax rate,  $f^J$  is a transfer targeted to individuals in group  $J$ , and  $g$  is the supply of a public good, evaluated by the concave and monotonically increasing function  $H(g)$ . Assume  $u(\cdot)$  to be concave as well. The public policy vector  $q$  is defined by

$$q = [\tau, g, r, \{f^J\}] \geq 0,$$

where all components are constrained to be non-negative. Any feasible policy must satisfy the government balanced budget constraint

$$3\tau = \sum_J f^J + g + r.$$

The component  $r$  reflects rents to the politicians and is a deliberate object of choice. Rent extraction is associated with some transaction cost  $1 - \gamma$ , such that only  $\gamma r$  benefit the politician.

Before the elections, two parties or candidates ( $A$  and  $B$ ) commit to policy platforms  $q_A$  and  $q_B$ . They act simultaneously and do not cooperate. The winning platform is implemented. Party  $P$  maximizes the expected value of rents,

$$E(v_P) = p_P \cdot (R + \gamma r),$$

where  $R$  denotes the ego rents associated with winning the elections, and  $p_P$  denotes the probability that  $P$  wins the right to set policy, given  $q_A$  and  $q_B$ .

We assume probabilistic voting. Let  $W^J(q)$  denote the preferences of voters in group  $J$  over government policy, and let  $\delta + \sigma^{iJ}$  denote voter  $i$ 's ideological preference for party  $B$ . Assume that  $\delta$  is uniformly distributed on  $\left[-\frac{1}{2\psi}, \frac{1}{2\psi}\right]$  and  $\sigma^{iJ}$  differs across groups  $J$  and is uniformly distributed on  $\left[-\frac{1}{2\phi} + \bar{\sigma}^J, \frac{1}{2\phi} + \bar{\sigma}^J\right]$ ,  $J = 1, 2, 3$ . Assume further that  $\bar{\sigma}^1 < \bar{\sigma}^2 = 0 < \bar{\sigma}^3$ ,  $\phi^2 > \phi^1, \phi^3$ , and  $\bar{\sigma}^1\phi^1 + \bar{\sigma}^3\phi^3 = 0$ .

- i. Compute the social planner's policy choice.
    - ii. How do transfers in this proportional election model compare with the social optimum?
    - iii. Write down the condition for the choice of rents,  $r$ , in equilibrium.
  - (b) Does the empirical evidence support the hypothesis that electoral rules matter for policy outcomes?
    - i. Describe the cross-country relationship between political institutions and government spending documented in Persson and Tabellini (2003). Briefly discuss their data, econometric methodology, as well as any limitations.
    - ii. Briefly discuss two other papers that have tried to address this question using subnational variation. What are the strengths and weaknesses of these papers?
2. Civil conflict, state capacity and economic development
- (a) Describe the cross-country relationship between civil conflict incidence and per capita income levels. Which world regions have particularly high rates of civil conflict? Have global civil conflict rates been rising or falling over the past decade? (Hint: these relationships are described in Blattman and Miguel 2010.)
  - (b) Causality remains a key issue in interpreting the cross-country relationship between income and political violence. Briefly describe one theoretical explanation for why poverty (low income levels) could increase civil conflict risk, and one explanation for how civil conflict could increase poverty.
  - (c) Describe the main implications of the Besley and Persson (2010) model of state capacity, development and conflict. Why might shocks to resource rents affect conflict risk in their framework?
  - (d) Describe the relationship between different types of economic shocks and conflict risk documented in Dube and Vargas (2011). Briefly discuss their data and econometric methodology, and evaluate the credibility of their findings. Then relate their findings to the predictions of the Besley and Persson (2010) model regarding resource rents and political violence.