Political Economy August 2023 Exam Questions (Select 3 of the following questions to answer based on courses taken).

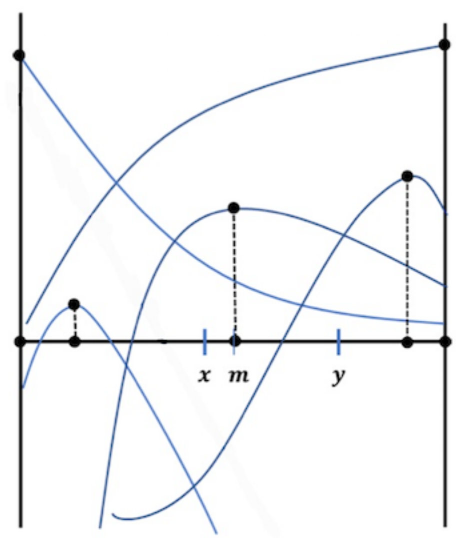
Question for PLSC 721 (Political Economy of Development) for PE exam

This question focuses on Enikolopov, Makarin and Petrova (*Econometrica*, 2020)

a. Discuss what is the role that protests play in existing theories of democratization. How do protests, which are sporadic events, lead to long-standing institutional changes according to these theories?
b. Explain with precision the main identification strategy in Enikolopov, Makarin and Petrova (2020). To do so, you will have to describe the setting and background. What is the research question and what variation is being used to target it?
c. Look at Table 1 in the paper. What is the role of this table in the paper? Why are controls being added to ensure that the coefficient in the first row is significant, but the coefficients in rows 2 and 3 are not?
d. Table 2: What are the main IV results in the paper? Do they have the same sign as the OLS? Discuss the differences between the two and whether it aligns with the main concern that the OLS may be biased.
e. Describe the two main mechanisms presented in the paper through which social media could be conducive to increased incidence and participation in protests.
f. What evidence does the paper present to conclude in favor of one of the two mechanisms you described in the previous question?

Question for PLSC 705 (Introduction to Political Economy) for PE exam

(a) State the median voter theorem.
(b) Prove the median voter theorem (you may use pictures).
(c) How might you challenge the internal consistency of the median voter theorem?
(d) State fully the definition of an *endogenous party Wittman equilibrium* (EPWE) for a unidimensional policy space. You may denote the probability the policy t^A defeats policy t^A by $\pi(t^A, t^B)$.
(e) Explain the condition that models the idea that the parties are endogenous.
(f) Is there a convergence result that relates the median-voter equilibrium with certainty to the EPWE with uncertainty?
(g) Examine Figure 3 in the lecture '8b.Median voter theorem,' reproduced below, which illustrates the utility functions of five voters on a unidimensional space.



The median ideal point

Now delete the voter (and her utility function) whose ideal point is the median ideal point, *m*. Assume we are in the classical situation of two opportunist politicians each of whom wishes to propose policies that will maximize his/her vote share given what the opponent is playing. What will the voting equilibrium look like in this situation?

Question for PSC 518 (Introduction to Game Theory)

Consider a two-player ultimatum (also known as take it or leave it) bargaining game where either a peaceful settlement or war can occur. Country 1 makes an offer to split a territory that is normalized to size 1 and then country 2 decides to accept or reject the offer. Denote 1's offer by x with the interpretation that if the offer x is accepted then 1's payoff is x and 2's payoff is 1-x. If 2 rejects the offer then a war occurs. Let the payoff to country 1 from war be given by p-c and country 2's payoff from war be given by 1-p-k. The term p is interpreted as the probability that 1 will win the war (so it is between 0 and 1). Further assume that while both players know the exact value of c, the value of k is only known by country 2. Assume that country 1 believes the value of k is drawn from a distribution function f on the set [0,1].

a. What is the appropriate equilibrium condition for analyzing this game?
b. First assume that f is the uniform distribution and derive the equilibrium to this game.
c. Derive the equilibrium offer and the equilibrium probability of war as a function of the parameters c and p.
d. Under what conditions does the equilibrium involve a positive probability of war?
e. Under what conditions (if any) is the equilibrium probability of war increasing in the parameter p? Under what conditions (if any) is the equilibrium probability of war deceasing in the parameter p.
f. Now generalize and assume that the distribution f is not necessarily the uniform but rather it is a continuous and differentiable CDF on the unit interval. Provide an implicit characterization of the equilibrium?
g. Under what conditions if any is the equilibrium probability of war increasing in the parameter p? Under what conditions if any is the equilibrium probability of war decreasing in p?
h. Comment on what this exercise tells you about how military capacity impacts the odds of war.

Microeconomics Question for Formal Exam

a. Consider a consumer with Cobb Douglas Utility over two consumption goods, given by $u(x_1,x_2)=x_1^{\alpha}x_2^{1-\alpha}$. Assume the exponent is strictly between 0 and 1. The consumer faces two strictly positive prices, p_1 and p_2 and has an endowment of income given by $y>0$. Does this consumer have homothetic preferences, provide an argument. Are the consumer's preferences strictly convex and locally non-satiated?
b. Solve for the Marshallian Demand, indirect utility function and Hicksian Demand
c. Comment on the value and or interpretation of the three functions you just solved for.
d. Suppose now that there are 2 agents with identical preferences with $\alpha=.5$, but that agent 1 has an endowment of (3,1) and agent 2 has an endowment of (1,4). There is an exchange economy between these two agents. How should we think about the set of possible allocations that may be reached if these two agents are free to trade? Now suppose the endowments are (3,3) and (1,1) respectively, what can you say about possible trades.
e. Now suppose we have three consumers with Cobb Douglas utility but different exponents; assume that $0<\alpha_1<\alpha_2<\alpha_3<1$. Suppose that a planner is going to provide a consumption bundle (x^*_1,x^*_2) that each must consume-no trading is possible. The allocation must satisfy a feasibility constraint that the total value of three such bundles corresponds to $y=3$. Assume that the prices of the two dimensions are 1 and 2 respectively. The allocation is chosen by the following procedure. Each agent, j, is asked to propose an allocation that costs exactly y, call it x^j. Assume that only reports satisfying this feasibility condition can be submitted. Then the allocations are ordered by their first coordinate and the median allocation is implemented (i.e each consumer gets this allocation). Describe the set of reports/proposals that are weakly dominant strategies for the three agents in this simultaneous move reporting game.