ECON 4640
Spring 2012
Willumsen

Problems for seminar 6

Problem 1: Exam 2010, short question 2.

Problem 2: Exam 2008, Part I, question 3.

Problem 3: Exam 2008, Part II, all questions.

Problem 4: Diff–in–diff. Khwaja and Mian (2005, QJE) estimate the effect of political connections on the size of the loans a firm obtain in government banks using a "diff–in–diff" approach. Assume now that the expected value of the loan size in the absence of any effect of political connections can be written as

$$E\left[Y_{0ij}|P_i, G_j\right] = \alpha_P + \alpha_G$$

where Y_{ij} is the size of a loan to firm i from a bank of type j (private vs. gov.), P_i is a dummy for whether firm i is politically connected, G_j is a dummy for whether bank j is government controlled, α_P is a fixed effect for type of firm (politically connected or not), and α_G is a fixed effect for type of bank (government owned or not). Assume further that the effect of being politically connected when meeting a government bank has a constant "treatment" effect on the loan size the firm obtains:

$$E\left[Y_{1ij} - Y_{0ij}|P_i = 1, G_j = 1\right] = \beta$$

Note that Y_{1ij} and Y_{0ij} denote the potential outcomes, i.e. respectively the effect in the presence and absence of "treatment".

(a) Why is loan size a particularly relevant measure in Khwaja and Mian's context?

(b) If we compare the loan sizes across different (types of) banks for politically connected firms and see that the loans the firms obtain are larger in government banks, can we conclude that the government banks are giving favors to the politically connected firms?

(c) If we compare the loan sizes across different types of firms (connected vs. not connected) in government banks and see that the loans the politically connected firms get are larger, can we conclude that government banks are giving favors to the politically connected firms?

(d) Suggest a comparison across banks and firms that allow you to estimate the causal effect of favoritism β. Can you implement your suggested comparison as a regression?

(e) What is the crucial assumption you need for β to estimate the causal effect of political favoritism? Do you think that this assumption is likely to hold here?

(f) If you use firm fixed effects (α_i) rather than a dummy for being politically connected, can you still identify β? Why or why not?