

**Problem set 5 – ECON 4921, November 2, 2009**

1) How would you describe the main building blocks of Moene's theory of bureaucracy? Discuss.

2) Consider a model where the bureau head cares about  $U(X,Z)$ , where  $X$  is size,  $Z=B-C(X)$  is budgetary slack,  $B$  is the budget, and  $C(X)$  is minimum cost of  $X$ . Society's willingness to pay for  $X$  is  $W(X)$ . Let  $X_a$  be social optimum defined by  $W'(X_a)=C'(X_a)$ .

- a. Let the sponsor (e.g. a local council) decide the budget and the bureau head decide the activity level of the bureau. Show that the level of  $X$  is smaller than  $X_a$  when the sponsor set the budget, perceiving the bureau's response.
- b. Let  $X$  reflect expansion of existing bureau. The sponsor decide both the budget and the expansion of the bureau, but the bureau has an information advantage. When will there be underexpansion?