ECON 4335 – fall 2014

Problem set 1 – seminar # 1 (September 2, 2014)

Take the Tobin model from the first lecture, and derive the optimality condition for a bank with random deposits when loans are decided before deposits are realized.

Compare the random case with the one where deposits are known and equal to expected deposits in the uncertainty case, and show the impact on the bank's lending policy when:

- Expected deposits are higher
- Higher equity
- There is a recession that lowers the marginal expected return from lending
- Other banks start to hoard liquidity

Show also the value to the bank of having more equity both under full certainty and under uncertainty. (Hint: Show the impact on the objective function of having more equity, use the envelope theorem.)

At last you should try to explain what might happen to the bank's lending policy if the distribution of X should become more risky; say by having a higher variance.