Lecture 1 Outline

1. Asymmetry in economic models. Hansen (2014). Inside vs. Outside. Why not just ask agents what their parameters are? (Answer: models are just approximations, but usually our models don't acknowledge this).
2. This is only an issue if we attempt to estimate structural models. Why not let the data 'speak for themselves'?
3. Counterfactuals. Lucas Critique. Lucas' computer program.
4. Simple LQ tax example. Note: (1) Soln. is 'forward-looking', (2) Cross-Eq. restrictions, (3) Appeal to RE when solving, (4) Policy rules vs. Policy actions.
5. "Regime changes"? Note how REH switches roles of who's optimizing and who's not.
6. Why not assume both optimize? $\Rightarrow$ Dynamic game.
   Sims. "Autoregressions, Expectations and Advice". Positive/normative tension. Stigler vs. Friedman.
7. Distinction between REE and SCE restores a role for policy advice? Sargent (2008).
8. Dynamic game approach suggests loss of recursive structure. Time Inconsistency. Need to rethink what a state variable is.
9. "Commitment technology"? Reputation as a state variable. APS. Interpreting history-dependence.
10. Back to Hansen. Two ways to respond to Uncertainty - Learning vs. Coping.
11. BDT $\Rightarrow$ No Uncertainty. Priors, hypermodels, model-averaging.
12. Savage vs. Wald/Bayes vs. Minmax/Small Worlds vs. Large Worlds. Savage quote about picnics. Note 2nd 1/2 of Savage devoted to minmax!
13. Martingales as unstructured Uncertainty. Relative entropy. Detection Error Probabilities.
14. Retreat from REH is empirically motivated, as opposed to 'realism'. Uncertainty premia vs. Risk premia.
15. Current research frontier - Blending Savage & Wald. Learning and Coping as complements, not substitutes. Goal - be able to read and understand HS work on Fragile/Tenuous Beliefs.
16. Python jargon. Comparison to Matlab.
17. LQ/PI model as prototype. Three solutions strategies: (1) Classical (Euler Eq.), (2) Recursive (DP), (3) Invariant subspace. Pros & cons of each. Start by solving Euler eq. 'by hand'.
18. Assumptions of LQ/PI. Alternative interpretations of the LQ/PI. Empirical estimation and testing.