Lecture 2 Outline

1. QuantEcon/Python vs. Matlab.
2. Why LQG? Pros & Cons.
3. LQ/PI assumptions. (L^2 vs. TVC).
4. Euler equation.
5. Jensen's inequality and Precautionary Saving. Certainty Equivalence.
6. Hall's martingale result. Consumption-smoothing in complete vs. incomplete markets. (Store this for later).
7. The Hansen-Sargent prediction formula.
8. Empirical evidence. Cross-equation restrictions. Excess sensitivity & excess smoothness.
9. Implications for lifecycle inequality. A 'poor man's Bewley model'.
10. Muth's example.
11. Shocks and information sets. Wold representations and invertibility.
12. Quah's (1990) example. Blaschke matrices.
13. Invertibility depends on conditioning information. Quah (1990) vs. Campbell & Deaton (1989).
14. DP solution of the LQ/PI model.
15. State variables, Bellman equations, and policy functions.
16. A trick to enforce L^2.
17. Value function iteration vs. Policy function iteration.
18. Riccati equations. Controllability, stabilizability & TVCs.