Université des Sciences Sociales de Toulouse
MPSE
Année universitaire 2005-2006
DEA Macroéconomie II — Cours de Franck Portier

September Exam (1h30)

Choose 3 questions out of the 4 below

*For each question, propose a structured answer with as much economic content as possible. Define the main terms and use math if needed.*

1. The AD/AS model: Discuss of the usefulness and drawbacks of the Aggregate Supply/Aggregate Demand model.
2. Ricardian Equivalence: What is it and why might it not hold?
3. The Equity Premium Puzzle:
   (a) State the puzzle as it was discovered by Mehra & Prescott
   (b) Show that the period-0 price of an asset that yields a stream of dividends $\{d_t\}_{t=0}^{\infty}$ is given by
   $$P_0 = \sum_{t=0}^{\infty} \beta^t \left[\frac{U'(c_t)}{U'(c_0)}\right] d_t$$
   *Hint: use the first order condition of the intertemporal utility maximization of a consumer that can buy and sell the asset*
   (c) Let $R^s$ and $R^b$ be the returns of a stock and a riskless bond. Assume that $u(c) = \frac{c^{1-\alpha}}{1-\alpha}$. Comment in economic terms the two following equations:
   $$E_t\left[\beta\left(\frac{c_{t+1}}{c_t}\right)^{-\alpha}(R^s_{t+1} - R^b_{t+1})\right] = 0 \quad (1)$$
   $$\beta E_t\left[\left(\frac{c_{t+1}}{c_t}\right)^{-\alpha} R^b_{t+1}\right] = 1 \quad (2)$$
   (d) What are the solutions proposed in the literature to solve the equity premium puzzle?
4. Business Cycles: How do we define and measure business cycles? What are their main properties in developed market economies?