Fiscal and Financial System in Japan A Hideyuki Iwamura

Spring 2009

Meiji Gakuin University

Midterm Exam

June 9, 2009

- This exam is 60 minutes long, and is worth 100 points.
- For any questions, you can give (numerical) examples, if it helps.
- You can also draw graphs and figures, if it helps.
- Define clearly all the letters you use, like 'let "i"denote the interest rate.'
- The numbers in brackets after the questions represent the points allocated.

PART 1: Short answer in three to five lines for each question

1. When and how does finance help us to be better off? Give me at least one example and explain it. [5]
2. Explain what the "REAL INTEREST RATE" is, in comparison with the "NOMINAL INTEREST RATE". [5]
3. What is the relationship among the three definitions of money stock by the Bank of Japan, M1, M2, and M3? [5]
4. Explain the "PRICE" and "FACE VALUE" of a bond. [5]
5. Explain "LIQUIDITY". [5]

PART 2: Detailed explanation with examples, equations, or graphs

1. Explain the "FUNCTIONS OF MONEY" and how money improves the efficiency of our economy. [20]
2. Explain how the "YIELD TO MATURITY" is calculated and what it tells us, and derive the relationship between a bond price and its interest rate (yield to maturity). (If you have difficulty, take for example a particular coupon bond and try to show how to calculate its yield to maturity.) [20]
3. Determine which investment is more profitable, (a) a simple loan with the annual interest rate of 2% or (b) a ¥10,000 face value discount bond maturing in three years that sells for ¥9,600? Be sure to show your algebraic work. [15]
4. Suppose that people believe that the default risk on firms' bonds has sharply increased in the recession, and suppose that the other conditions remain constant.
   (1) Draw a graph and show what happens to the money market and the interest rate, applying the model of interest rate determination we have set up in the class. Be sure to label your curves and axes. [5]
   (2) Explain why the curve shifts in the direction it does. [5]
   (3) Describe the process where the market recovers its equilibrium. [10]