Midterm Exam
June 14, 2010
15:10 – 16:10

- This exam is 60 minutes long, and is worth 100 points.
- You can draw figures and graphs, if it helps.
- Define clearly all the letters you use, like "let P represent the price of a bond."
- Write in clear letters so that you can appropriately be evaluated.
- The number in a bracket after each question represents the points allocated.
- No student is allowed to see textbooks or handouts.
- Non-native students in English are allowed to use English dictionaries.

Part 1

1. Cash currency makes up (large part / nearly half / small part) of *M1*. [4]
2. Interest rates of Japanese government bonds (seldom/ sometimes / frequently) change. [4]
3. It takes a (short / long) time for an asset market to reach its equilibrium. [4]
4. *M1* includes ordinary deposits at Japan Post Bank (*Yucho Ginko*). True or false? [4]
5. When GDP grows at an annual rate of 10 percent, it takes less than 8 years to be doubled. True or false? [4]

Part 2 Answer briefly in five lines at most

1. What is "coupon" of a bond? [5]
2. How does money function in our economy? Explain briefly. [10]
3. Give a rough distinction among the definitions of money stock, M1, M2, M3, and L by the Bank of Japan. [10]
4. If you today make a simple loan of 100,000 yen with an annual interest rate of 3 percent and a maturity of 3 years, how much money will you finally receive? [5]
5. Explain the Keynes' classification of various financial assets in his model. Be sure to define "liquidity." [10]
6. Suppose we do not have money as a common unit of account. Then how many relative prices do we need to calculate when we have 7 varieties of goods? Show also how you calculated. [5]

Part 3 Detailed explanation with examples, equations, or graphs

1. Money improves the efficiency of our economy by giving us a medium of exchange. Explain how it does so. You can give a example. [15]
   (*You can give an example.)
2. Determine which is more profitable investment, a 2-year discount bond with the face value of 108,900yen selling for 100,000 yen, or a 3-year coupon bond with the face value of 100,000 yen and a coupon rate of 0.07 selling for 90,000 yen? Also show your algebraic work. [10]
3. Suppose that the equilibrium interest rate is 7 percent. If the market interest rate is now 4 percent, what will happen and what will be the final outcome? [15]