Examination: 2051 Monetary Economics Winter Term 2007/08

Examiner: Prof. Dr. Horst Gischer

Devices allowed: Pocket calculator

Please answer *two* of the following three questions, all questions have equal weights.

1. a) Explain why bonds of different maturities have to be perfect substitutes for the expectations theory of the term structure to hold.

   b) By applying the expectations theory, calculate the interest rates in the term structure for maturities of one to five years, and plot the resulting yield curves for the following series of one-year interest rates over the next five years:

   (i) 3%, 3,5%, 3,5%, 4%, 3%
   (ii) 6%, 6%, 5%, 4%, 4%

   How would your yield curve change if people preferred shorter-term bonds over longer-term bonds?

   c) Explain why the "Liquidity Premium Theory" of the term structure can be regarded as a combination of the "Expectations Theory" and the "Segmented Market Theory" of the term structure.

2. a) Describe and explain the "Liquidity Preference Model". Derive the impact of

   - a decreasing income,
   - a rising price level,
   - an increase in money supply

   on the equilibrium interest rate in an economy, respectively.

   b) Assume a situation where Federal Bonds and Corporate Bonds of the same maturity initially have an identical interest rate. Explain in a "Price-Quantity"-framework the effect of an introduced positive default risk for Corporate Bonds on the interest rates and the prices of the two types of bonds.

3. Explain the economic meaning of "Yield to Maturity" and describe the different ways of calculating the yield to maturity for a simple loan, a fixed-payment loan, a coupon bond, and a discount bond, respectively.