

OLLSCOIL NA hEIREANN, GAILLIMH  
NATIONAL UNIVERSITY OF IRELAND, GALWAY

AUTUMN EXAMINATIONS 2002

**THE ECONOMICS OF FINANCIAL MARKETS (EC 362)**

Third Arts, Third Commerce

Professor H. Dixon  
Professor M. Cuddy  
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Time allowed: **TWO** hours

Please answer **SIX** questions from Part A and **TWO** questions from Part B. Each question in Part A is worth 8 points and each question in Part B 26 points.

**PART A**

1. Suppose investors expect nominal interest rates on government bonds to increase in the future. Explain the effect of this on the current nominal interest rates on corporate bonds.
2. Discuss the factors that explain the fact that over the last 40 years interest rates on US government bonds have exceeded the rates on municipal bonds with the same maturity.
3. How can the segmented markets theory of the term structure explain an upward sloping yield curve ?
4. Explain how long term inflationary expectations affect the slope of the yield curve.
5.
  - (a) Find the yield to maturity for a consol with face value £1,000, price £950 and coupon rate 5%.
  - (b) Consider a Treasury Bill with maturity 270 days, face value £1,000 and price £900. Find the yield on a discount basis. How would you expect this yield to differ from the yield to maturity ?
6. Explain briefly the meaning of the following:
  - (a) Primary Market
  - (b) Treasury Bill
  - (c) Interest Rate Risk
  - (d) Asset Liquidity
7. Consider two assets A and B with expected returns  $R_A = 8\%$  and  $R_B = 4\%$  and

standard deviations  $\sigma_A = 4\%$  and  $\sigma_B = 2\%$ . Find the expected return and the standard deviation of returns of the two-asset portfolio in two cases: (a) The correlation coefficient of returns  $\rho$  is -1 and (b)  $\rho = 0.5$ . Plot the feasible and efficient set in each of the two cases and explain your answer.

8. (a) State the assumptions of portfolio theory.
- (b) Consider two assets A and B with expected returns  $R_A = 10\%$  and  $R_B = 6\%$  and standard deviations  $\sigma_A = 6\%$  and  $\sigma_B = 4\%$ .
  - (i) Assuming the correlation coefficient of returns  $\rho = -1$ , determine the shares of assets A and B in the zero-risk portfolio.
  - (ii) Assuming the correlation coefficient of returns  $\rho = 0$ , determine the shares of assets A and B in the minimum-risk portfolio.

### **PART B**

1. (a) Explain under what conditions an unanticipated decline in the rate of money supply growth will lead to a decline in short-term interest rates, both in the short run and the long run. (11 points)
- (b) (i) Explain the concept of an efficient market. (5 pts)
- (ii) Explain the distinction between the effects of anticipated and unanticipated monetary policy on short-term interest rates under the efficient market approach to monetary policy. (10 pts)
2. (i) Explain the Fisher effect using the Loanable Funds theory. (10 pts)
- (ii) How can economic theory justify the empirical finding of the weak form of the Fisher effect ? (16 pts)
3. Explain the functions of financial intermediaries in modern financial systems. How can they account for the relative importance of indirect versus direct finance in total external business finance ?
4. (i) State the three empirical regularities that apply with regards the relationship between short-term and long-term interest rates. (6 pts)
- (ii) Explain the assumptions of the expectations theory and the preferred habitat theory of the term structure. (5 pts)
- (iii) Explain which of these empirical regularities and how the expectations theory and the preferred habitat theory can explain. (10 pts)
- (iv) Explain the price-risk hypothesis of a variable term premium. (5 pts)