

Review Topics for FE 486B – Exam 1

A) Introduction to the Financial System

Key Concepts:

Financial market	Diversification	Financial institution
Security	Mutual fund	Bank
Bond	Asymmetric information	Private loan
Interest	Adverse selection	Indirect finance
Stock	Moral hazard	Direct finance

Questions to Ponder:

- 1) Why is a healthy financial system important for economic growth?
- 2) Suppose there are two investors. One has a project to build a factory; the other has a project to visit a casino and gamble on roulette. Which investor has a greater incentive to issue bonds, and why? Which investor's bonds are a better deal for savers, and why?
- 3) Firms such as Moody's and Standard & Poor's study corporations that issue bonds, and publish "ratings" for these bonds. Suppose these rating companies went out of business. What effect would this have on the bond market? What effect would it have on banks?
- 4) National credit bureaus collect information on people's credit histories. Suppose that a new privacy law makes it illegal for credit bureaus to collect this information. What effect would this have on the banking industry?

B) Asset Prices and Interest Rates

Key Concepts:

Future and present value

Asset price bubble

Classical theory of asset prices

Margin requirement

Dividend

Yield to maturity

Risk premium

Capital gains and losses

Risk-adjusted interest rate

Term structure of interest rates

Gordon growth model

Yield curve

C) Securities Markets

Key Concepts:

Asset allocation	Underwriter	Modigliani-Miller theorem
Securities firms	Primary and secondary markets	Efficient markets hypothesis
Hedge fund	Initial public offering	Index fund
Leverage	Dealer market	Derivatives
Broker	Bid-ask spread	Futures contract
Dealer	Stock market index	Option (call and put)
Investment bank	Capital structure	Credit default swap

Questions to Ponder:

- 1) What are the benefits and costs to a person of holding a large fraction of her wealth in stock?
- 2) What factors influence a firm's decisions about its capital structure?
- 3) When investment banks underwrite IPOs, they typically sell stock for 5 to 10 percent more than they paid for it. When they underwrite new stock for companies that are already public, the typical markup is 3 percent. What explains the difference?
- 4) Assume that bonds pay a real return of 2 percent. Stocks pay 22 percent half the time and -6 percent half the time. Suppose you initially have wealth of \$100, and let X be your wealth after 1 year. What fraction of your wealth should you hold in stock under each of the following assumptions?
 - a) You want to maximize the average value of X .
 - b) You want to maximize the value of X when the return on stocks is -6 percent.
 - c) You want to be certain that X is at least \$100 (that is, you don't want to lose any of your initial wealth). Subject to that constraint, you maximize the average value of X .
- 5) Suppose everyone in the world becomes convinced that the efficient market hypothesis is true. Will it stay true? Explain.
- 6) Suppose company A has a pretty stable stock price. Company B has a pretty uncertain stock price. Would you pay more for a call option on A's stock or B's stock? Explain.

D) Banking

Key Concepts:

Commercial bank	Net worth	Insolvency
Savings institution	Reserves	Equity ratio
Credit union	Return on assets and equity	Bank runs and panics
Finance company	Liquidity	Deposit insurance
Subprime lender	Federal funds	Capital requirements
Securitization	Collateral	Bank supervision
Mortgage-backed securities	Interest rate risk	Forbearance
Balance sheet	Rate sensitivity gap	

Questions to Ponder:

- 1) Securitization has spread from mortgages to student loans, auto loans, and credit-card debt. However, few loans to business have been securitized, except for loans guaranteed by the government's Small Business Administration. Explain why.
- 2) Describe the major items on the assets and liabilities sides of a bank's balance sheet.
- 3) Suppose Hibbard's Finance Company raises most of its funds by issuing long-term bonds. It uses these funds for floating-rate loans.
 - a) How does the company's rate-sensitivity gap differ from those of most banks?
 - b) What deal could the company make with a bank to reduce interest rate risk for both parties?
- 4) Suppose a bank has \$200 million in assets, \$10 in profits, and \$40 million in capital.
 - a) What is the bank's return on assets?
 - b) What is the bank's return on equity?
- 5) Suppose an economy has a high level of loans from one bank to another. How might this fact affect the likelihood of a bank panic?

6) Explain how deposit insurance works, the reasons that governments provide deposit insurance, and the problems that deposit insurance can create.