Study Guide for the FIN 330 Challenge Exam  
The Arthur J. Bauernfeind College of Business  
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An Overview of Managerial Finance
You should be able to explain:
1. the three traditional functions of finance (anticipating funds, acquiring funds, and allocation of funds)
2. the primary differences between the accounting and finance disciplines.
3. what is meant by agency theory and be able to give two examples of it.
4. the difference in the choice of depreciation methods for financial statements and for tax purposes.
5. the difference between the average tax rate and the marginal tax rate.
6. the taxation treatment of interest paid, interest received, dividends paid, and dividends received.
7. the advantages that each of these forms of organization offers over other forms of organization: sole proprietorship, partnership, corporation (also known as C-corporation), LLC, and Subchapter-S corporation.

You should be able to calculate:
1. the annual depreciation for an asset using the MACRS table.
2. the tax owed by a corporation, when presented information on:
   - ordinary income,
   - sale of a depreciable asset,
   - sale of securities, and
   - receipt of dividends.
   (Note: You do not have to memorize the tax rates or the levels of income for these rates.)

The Financial Environment: Markets, Institutions, and Investment Banking
You should be able to explain the:
1. various types of markets, including money market, capital market, primary market, and secondary market.
2. characteristics of U.S. Treasury bills, registered and bearer bonds, and commercial paper.
3. concepts of buying on margin and selling short.
4. major steps involved in a typical underwriting and sale of securities (i.e., the major functions of an investment banker).
5. two major factors that influence the flotation costs (i.e., the investment banker's fee or commission).

Leverage
You should be able to define:
- operating leverage, financial leverage, and combined (or total) leverage.
You should be able to explain:
1. the concept of leverage. This is one of our eight principles of finance.
2. why volume of sales is so crucial to a firm that has a high degree of operating leverage.
3. in what ways risk increases as financial leverage increases.
4. the effect that the degree of operating leverage has upon the financing options available to the company.

You should be able to calculate:
- the degrees of operating leverage, financial leverage, and combined leverage, using the percentage change equations.
Financial Planning and Control

You should be able to construct (or calculate):
1. a cash budget,
2. a pro forma income statement, and
3. a pro forma balance sheet.

Time Value of Money

You should be able to explain the:
1. concept of the time value of money.
2. difference between an ordinary (or deferred) present value table and a due present value table.
3. relationship between a single-period present value table and an annuity present value table.

You should be able to calculate the:
- present value and future value of a variety of cash flows.
- geometric mean return (1) for a stream of cash flows and (2) if you only have a beginning and ending value for a given time period.

Bonds (Debt) - Characteristics and Valuation

You should be able to explain:
1. the principle of valuation.
2. the three major types of risks confronting bondholders
3. the call feature, put feature, and sinking fund provisions of bonds.
4. the key characteristics of municipal bonds (e.g., tax status, income [or revenue] bonds vs. general obligation bonds, etc.)
5. why bonds are always discounted (or capitalized) at the market rate of interest for bonds of similar risk.

Be able to calculate:
1. the fair price to pay for a bond.
2. the internal rate of return (IRR) for a series of cash flow payments.

Risk and Rates of Return

You should be able to explain:
1. the concept of the risk-return tradeoff.
2. the concept of the portfolio effect (or diversification).
3. the concepts of systematic and unsystematic risk.
4. how beta is calculated and be able to state clearly exactly what beta measures.
5. when the use of standard deviation is an appropriate measure of risk for a stock and when beta is the most appropriate measure.
6. the relationship among the risk-return tradeoff principle, the capital asset pricing model, and the security market line.
7. how the security market line (SML) is used in practice.
8. what causes (1) parallel shifts and (2) changes in the slope of the SML.

You should be able to calculate:
- the value of the capital asset pricing model (CAPM) for a specific company's stock.
Stocks (Equity) - Characteristics and Valuation

You should be able to explain:
1. the Efficient Market Hypothesis, including its three forms (i.e., weak, semi-strong, and strong forms).
2. whether research results indicate that each form of the efficient market hypothesis is true.
3. the difference between the required rate of return and the expected rate of return.
4. what is meant by the term dividend discount model (DDM).
5. the Gordon model (also called the constant growth model).

You should be able to calculate the:
1. geometric mean return (to calculate the average compound growth rate)
   • fair price to pay for a stock, using the "P/E ratio" approach to estimate the future price of the stock

You should be able to draw or graph:
• the Security Market Line (i.e., plot the risk-free rate and the expected market return) and then plot several stocks’ expected rates of return on the graph.

Capital Budgeting Techniques

You should be able to explain:
1. the limitations of the payback period as a method of capital budgeting.
2. which capital budgeting method is better (net present value or internal rate of return) and why.

You should be able to calculate the:
1. net present value (NPV) of a proposed acquisition
2. internal rate of return (IRR) of a proposed acquisition
3. modified internal rate of return (MIRR) of a proposed acquisition
4. payback period of an acquisition.

Project Cash Flows and Risks in Capital Budgeting

You should be able to explain:
1. the three items that must be recovered for a capital budgeting analysis to have a recommendation to accept the project.
2. how one can adjust for risk in capital budgeting proposals.
3. how you distinguish relevant cash flows from sunk costs.
4. the major difference between expansion decisions and replacement decisions (i.e., incremental cash flows)

You should be able to set-up and calculate the:
1. cash outflows (initial investment) associated with a capital budgeting project. These include the cost of the new asset, the salvage value of the old asset, the working capital requirements, and any relevant taxes associated with the sale of the old asset.
2. after-tax cash inflows associated with a capital budgeting project. These include the conversion of pre-tax savings to after-tax cash flows (including changes in depreciation) as well as the terminal cash flows: recovery of working capital, salvage value of the new asset, and tax on the sale of the new asset.

Financial Statement Analysis

You should be able to explain:
1. the two major ways of interpreting ratios: industry (cross-sectional) and trend (time-series) analysis.
2. the cautions of using ratio analysis (see the schematic diagram link for financial statement analysis).
3. Which group of people is most interested in each of the types of ratios: liquidity, asset management (turnover), leverage, and profitability.
4. The tradeoff between liquidity and profitability. This is one of our eight principles of finance.
5. Each of the most commonly used ratios (shown on the class handout). Even though you will not be asked to calculate the ratio, you should be familiar with the formula for each of these ratios.

You should be able to:
1. Identify the strengths and weaknesses of a company by conducting a ratio analysis of the firm. If presented with three companies’ ratios, be able to identify the one with the highest financial strength.
2. Calculate a break-down of ROE into four parts using the duPont method of analysis, as presented in class.

Managing Short-Term Liabilities
For current liabilities, you should be able to explain:
1. The appropriate way to finance "permanent current assets” [also called "permanent working capital”] (see the schematic diagram)
2. The characteristics of commercial paper (registration, secondary market, does it have collateral, etc.)
3. What is meant by the prime rate of interest and LIBOR
4. What is meant by the loan-to-value ratio and how it varies with various types of collateral
5. The primary difference between a line of credit and a revolving charge agreement.
6. The three differences between pledging and factoring of accounts receivable (see the schematic diagram).
7. The reason that pledging was much more popular than factoring for many years.
8. The three major forms of using inventory as a short-term financing device (see schematic diagram)
   • Floating inventory liens (or blanket loans)
   • Trust receipts
   • Warehouse financing
9. The two legal requirements for establishing a warehouse financing arrangement.
10. The characteristics of inventory that will qualify for coverage under a trust receipt.

You should be able to calculate:
• The approximate cost of failing to pay within the discount period on your accounts payable.

Managing Short-Term Assets
You should be able to explain the:
1. Various cash management techniques in the textbook.
2. Various techniques for monitoring accounts receivable.

Multinational Financial Management
You should be able to explain:
1. The Eurodollar market
2. The concept of interest rate parity.
3. The concept of purchasing power parity.
4. The difference between spot and forward exchange rates.
5. Fixed exchange rates, floating exchange rates, and pegged exchange rates.
6. How financial managers are able to hedge against foreign exchange fluctuations.
7. The impact that devaluation (and revaluation) of a country’s currency has on exports/imports and the country’s inflation rate.