

Use these financial statements for the next question:

\$ millions	2012	2013		2012	2013		2013
Cash	14	18	Accts Payable	284	319	Revenues	842
Accts Receivable	62	66	Current Liabs	284	319	Costs	769
Inventory	112	114				Depreciation	47
Current Assets	188	198	Debt	120	72	EBIT	26
						Interest	6
Net Fixed Assets	470	446	Common & paid in	108	96	Taxes	7
			Retained Earnings	146	157	Net Income	13
			Equity	254	253	Dividends	2
Assets	658	644	L+E	658	644	Retained Earnings	11

Q1. (15 points) (a) How much did the firm receive from operating cash flows in 2013?

b) Combined, how much did the firm spend in 2013 on new investments in both net working capital and in net capital expenditures?

c) Calculate the firm's Free Cash Flows from assets. Briefly discuss or interpret it. AND briefly discuss how it was either paid for or used (hint in this case: if its Free Cash Flows were negative, what balance(s) increased, or if its FCFs were positive, what decreased?)

Q2. (10 points) Consider the following cash flows (in \$ millions) for a project:

Year	0	1	2	3	4
Cash Flow	-\$500	\$280	\$300	\$160	-\$260

For this project, you require an 8 percent return on your investment.

(a) Calculate the payback. If a company requires all projects to pay back within 4 years, will it invest in this project? Briefly explain.

(b) Calculate the NPV. Interpret it.

(c) Calculate the profitability index. If you apply the profitability index criterion, will you make this investment if funds are available? Briefly discuss.

Q3. (10 points) A stock has had returns of 30%, -36%, and 15% over the past three years. What was its historical arithmetic average return? What was its historical geometric return? If you invested \$1 in this stock three years ago, how much would it be worth today (that is, calculate the total return index over these three years)?

Q4. (8 points) Stock J has a volatility of 50%, a beta of 0.90, and an expected return of 8%. If the risk-free rate is 2% and the market risk premium is 6%, is this stock undervalued, correctly priced, or overvalued? Briefly explain.

Q5. (12 points) Yesterday Quinella Inc. had no debt and its equity was worth \$500 million. Its equity investors expected 10% returns per year. Today, Quinella announced a financial recapitalization plan to borrow \$200 million at a 6% yield and use the entire proceeds to buyback stock.

a) If Quinella pays no taxes and there are no other special advantages or disadvantages of debt financing, what will the value of the firm's capital be after it issues the debt? Briefly discuss.

b) If Quinella pays no taxes and there are no other special advantages or disadvantages of debt financing, what will the firm's cost of equity be after it issues the debt? Briefly discuss.

c) If Quinella's marginal corporate tax rate is 35% but because of deductions, last year Quinella's average effective tax rate was only 28%, and if there are no other special advantages or disadvantages of debt financing, what will the value of the firm's capital be after it issues the debt? Briefly discuss.

Q6. (12 points) MERT has a 9 day receivables period, a 30 day payables period, and a 55 day inventory period. MERT just announced that it would stretch out its bill payments to 45 days, in order to “control costs and optimize cash flow.” The increased payables period will be in effect for all of the company’s suppliers.

a) Exactly, what impact did this change in payables policy have on MERT’s operating cycle? Its cash cycle?

b) Describe how this policy change will impact the operating cycles for MERT’s suppliers? Their cash cycles?

c) MERT lengthened its payables period to “control costs and optimize cash flow.” Describe specific benefits, emphasizing items from the income statement and/or balance sheet, which will benefit MERT from this change?

Q7. (15 points) Clap Off Manufacturing uses 1,300 switch assemblies per week and then reorders another 1,300. The carrying cost per switch is \$5, and the fixed order cost is \$575. Calculate its existing Carrying Costs and Restocking Costs per year. Is the company’s current inventory policy optimal? If not, what quantity should it order each time and how many orders should it make each year?

Q8. (12 points) You order 500 items for \$20 each, and the supplier's terms are 2/10, net 40.

a) What is the last day you can pay before the account is overdue? And if you pay on that day, how much must you remit?

b) What is the last day you can pay to receive the discount? And if you pay by that day, how much must you remit?

c) What is the implicit Effective Annual Rate that you incur if you wait and pay on the final due date and do not take the discount?

1. Which of the following statements is TRUE?

- A. The average tax rate for most U.S. corporations is 21% while the marginal tax rate actually paid across U.S. corporations is actually been closer to 15%.
- B. A Limited Liability Company (LLC) is legally defined as a person, while a corporation with limited liability is considered a partnership of several persons.
- C. The ability of a corporation to grow can be seriously limited by an inability to raise cash via the primary capital markets for investment.
- D. According to the theory of the firm, among all stakeholders, the stockholders take the most risk.

2. Which of the following statements is FALSE?

- A. Financial ratios help compare over time companies of different sizes and industries, and since not all sources calculate them the same way, managers need to understand how they were derived.
- B. Asset utilization ratios describe how efficiently, or intensively, a firm uses its assets to generate sales.
- C. To a firm's creditors, particularly short-term creditors such as suppliers, the higher the current ratio is, the better.
- D. Higher margin, turnover, leverage, and dividends all generally allow a firm to grow faster over the long run.

3. Fill in the blanks: A perpetuity is worth _____ than an annuity, and a constant annuity is worth _____ than a growing annuity. (assuming the normal circumstance where the discount rate exceeds the growth rate and where the growth is positive)
- A. more, more
 - B. more, less
 - C. less, more
 - D. less, less
4. Which of the following statements is TRUE?
- A. Over time, if yields do not change, the values of premium bonds increase toward par smoothly.
 - B. When yields increase, bonds with longer maturities tend to decrease in value more than bonds with shorter maturities.
 - C. A "call provision" allows the bond holder the option to determine when they want the company to buy back the bond.
 - D. Treasury Bonds are pure discount loans sold by the US government as a means to borrow money for less than one year.
5. Which of the following statements is **FALSE**?
- A. Investors are willing to buy shares in companies that do not currently pay dividends because they believe the company will either eventually start paying dividends or be sold to another company.
 - B. Based on the dividend growth model, the total return on a stock is its dividend yield and its capital gains yield.
 - C. Based on the dividend growth model, both the dividends on a stock and its price must be expected grow at the same rate, at least in the long-run.
 - D. Over time, dividend yields (in percent) fluctuate much less than dividend amounts (in dollars), and dividend yields tend to be high when stock prices are low.
6. Which of the following statements is **FALSE**?
- A. NPV indicates how much a project will improve owners' wealth.
 - B. Payback measures the years to recover the initial cost and break even.
 - C. The average accounting return is estimated similarly to the profit margin.
 - D. IRR measures the dollar-weighted return on an investment.
7. If any, which of the following does NOT have the potential to increase the net present value of a proposed investment?
- A. The ability to immediately shut down a project should the project become unprofitable
 - B. The obligation to pay potential clean-up costs if a project damages the environment
 - C. The option to increase production beyond that initially projected
 - D. All of the above have the potential to increase the NPV of a proposed investment
8. If the financial markets are semi-strong form efficient, then:
- A. only the most talented analysts can determine the true value of a security.
 - B. only individuals with private information have a marketplace advantage.
 - C. technical analysis provides the best tool to use to gain a marketplace advantage.
 - D. no one individual has an advantage in the marketplace.

9. Which of the following statements is **FALSE**?
- A. Asset-specific risks can be diversified in a portfolio of imperfectly correlated assets
 - B. Asset-specific risks can be diversified with numerous assets in a portfolio
 - C. Bearing risk is rewarded with higher expected returns
 - D. Only asset-specific risks, not market-wide risks, should earn rewards
10. Which of the following statements is **FALSE**?
- A. The cost of debt for bonds is the same as the yield implied by their market quoted prices, except when that promised yield is too high due, for example, to the high default probabilities for junk bonds.
 - B. The cost of preferred stock equals its dividend yield as a percent of the current price, rather than the preferred dividend as a percent of its stated liquidating value, which is usually \$100.
 - C. Judgment is typically required when estimating the cost of equity, particularly when a company pays no dividends and when its beta estimate is imprecise.
 - D. Due to its lower priority and greater risk, a firm's cost of equity can sometimes be, and often is, less than its after-tax cost of debt.
11. Which of the following statements is **TRUE**?
- A. Leverage reduces the expected values of both EBIT and net income.
 - B. Leverage increases expected ROE but decreases expected EPS.
 - C. Leverage increases the volatility of both ROE and EPS.
 - D. Investors cannot create their own leverage within their own portfolios.
12. Which of the following statements is **TRUE**?
- A. Bankruptcy occurs whenever a firm is unable to meet obligations or reports negative book equity.
 - B. A Chapter 7 bankruptcy allows a firm to reorganize and continue operations as "debtor-in-possession."
 - C. Under bankruptcy, trade creditors have lower priority than secured bank loans.
 - D. Financial distress and bankruptcy costs cause WACC to decrease as leverage increases.
13. Which of the following statements is **FALSE**?
- A. Shortage costs decrease with the level of investment in current assets.
 - B. Increasing long-term debt is a use of cash.
 - C. A 'fortress' balance sheet is typified by high carrying costs, extra cash, and generous receivables, but creates the risk of a mismatch between short-term assets financed with long-term financial claims like bonds.
 - D. Instability in financial markets has led corporations to choose flexible short-term financial policies.
14. Which of the following statements is **FALSE**?
- A. Credit management trades off the carrying the cost of extending credit to buyers against the goal of increasing sales
 - B. Banker's acceptances are credit commitments made before delivery, are guaranteed by banks, and are common in international trade
 - C. Collection is one of the 5 C's of credit
 - D. Since firms choose their terms of sale, they tend to benefit when their customers forgo incentives, as long as the total amount is paid when it is due