

Solutions Manual for Foundations Of Financial Management 12th Block

SOLUTIONS MANUAL SAMPLE PREVIEW

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RESOURCE TYPE

Solutions Manual

Discussion Questions

- 1-1. Regulation was greatly increased with the Dodd – Frank Act and other measures.
- 1-2. The student should be prepared to pay a higher price for the promised \$2 from the Royal Bank. The risk is lower.
- 1-3. The goal of shareholder wealth maximization implies that the firm will attempt to achieve the highest possible valuation in the marketplace. It is the one overriding objective of the firm and should influence every decision. The problem with a profit maximization goal is that it fails to take account of risk, the timing of the benefits is not considered, and profit measurement is a very inexact process.
- 1-4. Agency theory examines the relationship between the owners of the firm and the managers of the firm. In privately owned firms, management and the owners are usually the same people. Management operates the firm to satisfy its own goals, needs, financial requirements and the like. As a company moves from private to public ownership, management now represents all owners. This places management in the agency position of making decisions in the best interest of all shareholders.
- 1-5. Because institutional investors such as pension funds (Ontario Teachers', CPP) and mutual funds own a large percentage of major companies, they are having more to say about the way publicly owned companies are managed. As a group, they have the ability to vote large blocks of shares for the election of a board of directors, which is supposed to run the company in an efficient, competitive manner. The threat of being able to replace poor performing boards of directors makes institutional investors quite influential. Since these institutions, like pension funds and mutual funds, represent individual workers and investors, they have a responsibility to see that the firm is managed in an efficient and ethical way.
- 1-6. Insider trading occurs when someone has information that is not available to the public and then uses the information to profit from trading in a company's common stock. The provincial securities commissions are responsible for protecting against insider trading.
- 1-7. Regulations set the "rules of the game" in which the firm operates. Shareholder wealth maximization can and should still be sought within the rules, for economic efficiency to be achieved. Society judge's deregulation benefits against the costs of regulation.
- 1-8. Management operates within a competitive market and they should be paid their opportunity cost. If managers do not act to maximize shareholder wealth, share prices will become depressed. To the extent manager's compensation is tied to share price performance, shareholders can fire managers, and there exists a market for corporate control, management will be compensated based on their economic contribution.

Chapter 1

- 1-9. Daily functions- cash management, inventory control, receipt and disbursement of funds. Occasional- share issue, bond issue, capital budgeting and dividend decisions.
- 1-10. There is unlimited liability for the sole proprietorship and partnership forms of ownership. Under the limited partnership, only the general partner(s) has unlimited liability, with limited partners obligated only to the extent of their initial contribution. Finally, all shareholders in a corporation have limited liability, although owner/ shareholders of small businesses often have to give banks their personal guarantees.
- 1-11. The corporate form is best suited to large organizations because of the easy divisibility of ownership through issuance of shares. Also, the corporation has continued existence independent of any shareholder.
- 1-12. Money markets refer to those markets dealing with short-term securities that have a life of one year or less. Capital markets refer to securities with a life of more than one year.
- 1-13. A primary market refers to the use of the financial markets to raise new funds. After the securities are sold to the public (institutions and individuals), they trade in the secondary market between investors. It is in the secondary market that prices are continually changing as investors buy and sell securities based on the expectations of corporate prospects. A liquid secondary market promotes a successful primary market.
- 1-14. Government debt loads require financing. This puts large demands (\$1 trillion in accumulated federal and provincial debt in 2017) on the capital markets, putting upward pressure on interest rates and a corporation's ability to invest in capital projects. When governments finance their deficits abroad they place Canada's economic levers outside of our control and debt servicing payments can impact the foreign exchange markets. As the government debt load relative to GDP been reduced in recent years there has been less pressure on interest rates, corporations have borrowed more, but there have been less 'risk free' government securities available (causing liquidity problems particularly in the money markets).
- 1-15. Stakeholders include: shareholders, creditors, employees, unions, environmentalists, consumer groups, Canada Revenue Agency, government regulatory bodies, customers, managers and others.

Internet Resources and Questions

1. www.nobelprize.org
2. www.fin.gc.ca
3. www.bankofcanada.ca
4. <http://www.onex.com/Our-Goals/Index?Key'GenPage=1073751432>
<http://www.rbc.com/aboutus/visionandvalues.html>
5. <http://www.bce.ca/responsibility/corporateresponsibility>

Problems

1-1. Incubus Corporation

a.	Common stock (contributed capital)	\$40,000
	Retained earnings (deficit)	<u>(7,000)</u>
		\$33,000
b.	Common stock	\$40,000
	Retained earnings $(-7,000 + 15,000 - 6,000)$	<u>2,000</u>
		\$42,000
c.	Common stock	\$60,000
	Retained earnings $(+2,000 + 12,000 - 6,000)$	<u>8,000</u>
		\$68,000

1-2. Puppet Corporation

a.	Common stock	\$20,000
	Retained earnings	<u>2,000</u>
		\$22,000
b.	Common stock	\$20,000
	Retained earnings $(+2,000 + 9,000 - 3,000)$	<u>8,000</u>
		\$28,000
c.	Common stock	\$30,000
	Retained earnings $(+8,000 + 5,000 - 2,500)$	<u>10,500</u>
		\$40,500

- 1-3.** Two to Ten Dollar Corporation would be expected to have the higher valuation because the \$10 per share dividend (although achieved later) is expected to be sustained for a much longer period of time. Building earnings for longer term sustainability is more valuable than quick returns that peter out.

- 1-4.** Share value is a combination of expected earnings (or cash flow) and the risk inherent in those cash flows. Although the financial institution reports lower earnings it is because of restructuring charges that lower reported earnings. Cash flows are not likely to be effected. Future earnings should be more reliable and therefore less risky than those of the new health services company. Therefore the market is likely to suggest a higher value for the financial institution.

1-5. Board of Directors Decision

- a.* A combination of high profit margins and strong consumer acceptance should be positive for share value. However a new product introduces a high degree of risk that will mitigate higher share values.
- b.* More detailed financial information for investors should increase their confidence in the activities of the firm and lower the risk of their investment. This will be offset by the likely increase costs of providing this information. In an environment of questionable ethics by management this should be slightly positive to share value.
- c.* Pollution control devices will increase firm costs. The local residents will view the firm more positively which should have some positive cash flow effects as they may be more willing to purchase the firm's products and will decrease possible litigations or harassment. Overall it is likely to be a neutral or slightly negative effect on share value.
- d.* Aligning management compensation motivators with shareholder goals should be positive for share values with implemented. The effect however may be small.

There is no correct answer. It depends on the tradeoff between risk, returns and costs.

Ratio Analysis

Purpose: The case allows the student to examine ratio analysis within the context of a customer-banking arrangement. The firm has a disagreement with the bank over how much it should be paying in relation to prime (no prior knowledge of banking is required for the case). An item of particular interest is the impact of an extraordinary loss on the firm's income statement. It has a major effect on the analysis of the company. Industry comparisons also are utilized.

Relation to Text: The case should follow Chapter 3.

Complexity: The case is moderately complex. It should require 1 to 1½ hours.

Solutions

1. Ratios	20XV	20XW	20XX
1. $\frac{\text{ROA} = \text{Net income}}{\text{Sales}}$	4.52%	5.42%	3.99%
2a. $\frac{\text{ROA} = \text{Net income}}{\text{Total assets}}$	6.09%	7.23%	5.71%
b. Net income sales $\times$ sales / total assets	4.52×1.35	$5.42\% \times 1.33$	$3.99\% \times 1.43$
3a. $\frac{\text{ROE} = \text{Net income}}{\text{Shareholder's equity}}$	16.04%	18.55%	15.02%
b. $\frac{\text{Net income} / \text{total assets}}{(1 - \text{debt} / \text{total assets})}$	$\frac{6.09\%}{(1 - .620)}$	$\frac{7.23\%}{(1 - .610)}$	$\frac{5.71\%}{(1 - .620)}$
2. Harrod's has suffered a sharp decline in its profit margin, particularly between 20XW and 20XX (5.42% down to 3.99%). Return on assets is also down, but not quite as much due to a slight increase in asset turnover. Return on stockholders' equity is also down.			
3.	20XV	20XW	20XX
1. $\frac{\text{ROA} = \text{Net income}}{\text{Sales}}$	4.522	5.42%	6.19%
2a. $\frac{\text{Net income}}{\text{Total assets}}$	6.09%	7.23%	8.85%
b. Net income sales $\times$ sales / total assets	4.52×1.35	$5.42\% \times 1.33$	$6.19\% \times 1.43$
3a. $\frac{\text{Net income}}{\text{Shareholder's equity}}$	16.04%	18.55%	23.30%
b. $\frac{\text{Net income} / \text{total assets}}{(1 - \text{debt} / \text{total assets})}$	$\frac{6.09\%}{(1 - .620)}$	$\frac{7.23\%}{(1 - .610)}$	$\frac{8.85\%}{(1 - .620)}$
4. After eliminating the effect of the nonrecurring extraordinary loss, the trend is clearly up over all three years. Particularly impressive is the increase in return on shareholders' equity from 16.04% in 20XV to 23.30% in 20XX.			
5. Harrod has a clear superiority in the profit margin (6.19% vs. 4.51%). This is further enhanced by a more rapid asset turnover (1.43 vs. 1.13) to give an even more superior return on total assets (8.85% vs. 5.1%). Finally, return on shareholders' equity greatly benefits from a higher debt ratio (62% vs. 48%) to provide an even larger gap between the firm and the industry (23.30% vs. 9.80%). While debt is not necessarily good, it has hiked up the return on equity to well over twice the industry figure.			

6. Ratios	<u>20XX</u>	<u>Industry</u>
1. $\frac{\text{Sales}}{\text{Receivables}}$	6.31	5.75
2. $\frac{\text{Sales}}{\text{Inventory}}$	4.75	3.01
3. $\frac{\text{Sales}}{\text{Capital assets}}$	2.77	3.20

Harrod's is clearly superior to the industry in receivables turnover (6.31 vs. 5.75) and inventory turnover (4.75 vs. 3.01) and this more than compensates for a lower sales to fixed assets ratio (2.77 vs. 3.20).

7. Becky would appear to have strong grounds for a complaint. It appears that the banker was using unadjusted income statement numbers to arrive at the conclusion that Harrod's was on a downward trend in terms of the profitability ratios. Also, using unadjusted data the profit margin was below the industry average.

However, the inferior performance was due to an extraordinary, nonrecurring loss. In terms of normal operating performance, the company is clearly on an upward trend and well above the industry averages on all counts. One percent over prime appears to be much more reasonable than 2½ percent over prime.

CASE

1

Harrod's Sporting Goods

Jim Harrod knew that service, above all, was important to his customers. Jim and Becky Harrod had opened their first store in Medicine Hat, Alberta eighteen years ago. Harrod's carried a full line of sporting goods including everything from baseball bats and uniforms to fishing gear and hunting equipment. By the year 20XX, there were twelve Harrod stores producing \$5 million in total sales and generating a profit of over \$200,000 per year.

On the positive side, there was an increasing demand for sporting goods as leisure time activities continued to grow. Also, Western Canada, where all twelve stores were located, was experiencing moderate growth. Finally, there had been a sharp upturn in the last decade for women's sporting goods equipment. This was particularly true of softball uniforms for high school, college, and city league women's teams. Jim's wife Becky was one of the top softball players in the city of Medicine Hat, and her extensive contacts throughout the province help to bring in new business. While Alberta is primarily known as a hockey province, Medicine Hat

hosts a Western Canada baseball world series each year in June and this generates a lot of interest in baseball (and softball as well).

Jim, who had been an offensive tackle at the University of Alberta took great pride in his stores as well as his prior university affiliation. He and Becky (also a University of Alberta graduate) contributed \$2,000 annually to the University of Alberta athletic program.

The growth in the stores was the good news for Jim and Becky. The less than good news was the intense competition that they faced. Not only were they forced to compete with nationally established sporting goods stores such as Sport Chek and National Sports, but Walmart also represented intense competition for the sporting goods dollar. The national stores were extremely competitive in terms of pricing. However, Jim, Becky and their employees offered great personal service, and they hoped this would allow them to continue with their specialty niche.

In January of 20XY, Becky, who served as the company's chief financial officer, walked into Jim's office and said, "I've had it with the National Bank here in Medicine Hat. It is willing to renew our loan and line of credit, but the bank wants to charge us 2½ percent over prime. The prime rate is the rate at which banks make loans to their most creditworthy customers. It was 4.75 percent at the time Becky had visited the bank, so that the total rate on the loan would be 7.25 percent. It was not so much the total rate that Becky objected to, as the fact that Harrod's was being asked to pay 2½ percent over prime. She felt that Harrod's was a strong enough company that 1 percent over prime should be all that the bank required. Her banker told her he would review the firm's financial statements with her next week and reconsider the premium Harrod's was being asked to pay over prime.

While Becky knew the bank "crunched all the numbers," she decided to do some additional financial analysis on her own. She had a bachelor's degree in finance with a 3.3 GPA. She began by examining Figures 1, 2, and 3.

Required

1. Compute the profitability ratios (3–1, 3–2, 3–3), including the a and b components (DuPont Methods) of the ratios as shown in the textbook. The profitability ratios should be shown for all three years.
2. Write a brief one-paragraph description of any trends that appear to have taken place over the three-year time period.
3. In examining the income statement in Figure 1, note that there was an extraordinary loss of \$170,000 in 20XX. This might have represented uninsured losses from a fire, a lawsuit settlement, etc. It probably does not represent a recurring event or affect the earnings capability of the firm. For that reason, the astute financial analyst might add back in the extraordinary loss to gauge the true operating earnings of the firm. Since it was a tax-deductible item, we must first multiply by (1-tax rate) before adding it back in.* The tax rate was 35 percent for the year.*

\$170,000	Extraordinary loss
<u>.65</u>	(1-tax rate)
\$110,500	Aftertax addition to profits from eliminating the extraordinary loss from net income

The more representative net income number for 20XX would now be:

Initially reported (Figure 1)	\$200,318
Adjustment for extraordinary loss being eliminated	<u>+110,500</u>
Adjusted net income	<u>\$310,818</u>

Based on the adjusted net income figure (\$310,818), recompute the profitability ratios for 20XX (include parts a and b for ratios 2 and 3).

* This adjustment was made because the \$170,000 deduction saved 35 percent of this amount in taxes. If we eliminate the \$170,000, the tax benefit would also be eliminated. Thus, the firm would only benefit by 65 percent of \$170,000, based on a 35 percent tax rate. The aftertax benefit of the tax adjustment for the extraordinary loss is \$110,500.

Required

4. Now with the adjusted net income numbers as part of the ratios for 20XX, write a brief one-paragraph description of trends that appear to have taken place over the three-year time period (refer back to the data in Question 1 for 20XV and 20XW).
5. Once again, using the revised profitability ratios for 20XX that you developed in Question 3, write a complete one paragraph analysis of the company's profitability ratios compared to the industry ratios (figure 3). Make sure to include asset turnover and debt to total assets as supplemental material in your analysis.
6. Harrod's has superior sales to total assets ratio compared to the industry. For 20XX, compute ratios 3–4a, 3–5a and 3–7a as described in the text and compare them to industry data to see why this is so. Write a brief one-paragraph description of the results. Note: for ratio 4, only half the sales are on credit terms.
7. Conclusion: Based on your analysis in answering Questions 4 and 5, do you think that Becky Harrod has a legitimate complaint about being charged 2½ percent over prime instead of one percent over prime? There is no absolute right answer to this question, but use your best judgment.

Figure 1

Harrod's Sporting Goods			
Income Statement (20XV-20XX)			
	20XV	20XW	20XX
Sales	\$4,269,871	\$4,483,360	\$5,021,643
.....			
Cost of goods sold	<u>2,991,821</u>	<u>2,981,434</u>	<u>3,242,120</u>
.....			
Gross Profit	\$1,278,050	\$1,501,926	\$1,779,523
.....			
Selling and administrative expense	<u>865,450</u>	<u>1,004,846</u>	<u>1,175,100</u>
.....			
Operating profit	\$412,600	\$497,080	\$604,423
.....			
Interest expense	115,300	122,680	126,241
.....			
Extraordinary loss	—	—	170,000
.....			

Net income before taxes	297,300	374,400	308,182
.....			
Taxes	<u>104,100</u>	<u>131,300</u>	<u>107,864</u>
.....			
Net income	\$ 193,200	\$ 243,100	\$ 200,318
.....			

Figure 2**Harrod's Sporting Goods****Balance Sheet
(20XV-20XX)**

	20XV	20XW	20XX
Cash	\$ 121,328	\$ 125,789	\$ 99,670
.....			
Marketable securities	56,142	66,231	144,090
.....			
Accounts receivable	341,525	216,240	398,200
.....			
Inventory	<u>972,456</u>	<u>1,250,110</u>	<u>1,057,008</u>
.....			
Total current assets	\$1,491,451	\$1,658,370	\$1,698,968
.....			
Net plant and equipment	<u>1,678,749</u>	<u>1,702,280</u>	<u>1,811,142</u>
.....			
Total assets	\$3,170,200	\$3,360,650	\$3,510,110
.....			
Liabilities and Shareholders' Equity			
Accounts payable	\$ 539,788	\$ 576,910	\$ 601,000
.....			
Notes payable	<u>160,540</u>	<u>180,090</u>	<u>203,070</u>
.....			
Total current liabilities	\$700,328	\$757,000	\$804,070
.....			
Long-term liabilities	<u>1,265,272</u>	<u>1,292,995</u>	<u>1,372,240</u>
.....			
Total liabilities	\$1,965,600	\$2,049,995	\$2,176,310
.....			
Common stock	367,400	368,000	368,000
.....			

Retained earnings*	837,200	942,665	965,800
.....			
Total shareholders' equity	<u>1,204,600</u>	<u>1,310,655</u>	<u>1,333,800</u>
.....			
Total liabilities and shareholders' equity	\$3,170,200	\$3,360,650	\$3,510,110
.....			

Figure 3

**Harrod's Sporting Goods
Selected Industry Ratios for 20XX**

1.	Net income/Sales	4.51%
2a.	Net income/Total Assets	5.10%
2b.	Sales/Total Assets	1.33 ×
3a.	Net income/Shareholder's Equity	9.80%
3b.	Debt/Total Assets	0.48
4.	Sales/Receivables	5.75 ×
5.	Sales/Inventory	3.01 ×
6.	Sales/Capital Assets	3.20 ×

* Withdrawal of funds in the form of dividends or other means makes the increase in retained earnings less than net income.