① Define the problem
② Frame them in financial theory
③ Analysis
④ Recommendation

2

Financial Ratio Analysis

- have a bus. plan?
- no more capacity to internally finance
- NI ↓
- cash position & CF weak
- fiercely competitive
- Andre is not a fin. mgr.
- good contacts/relationships
- doubled store size in 3rd year

Bigger Isn't Always Better!

- need to improve financials to:
  ① keep supplier credit line
  ② need bank loan for expansion
- strong sales expected in future

Andre Pires opened his automobile parts store, Quickfix Auto Parts, five years ago, in a mid-sized city located in the mid-western region of the United States. Having worked for an automobile dealership, first as a technician, and later as the parts department manager, for over 15 years, Andre had learned the many nuances of the fiercely competitive automobile servicing business. He had developed many contacts with dealers and service technicians, which came in really handy when establishing his own retail store. Business had picked up significantly well over the years, and as a result, Andre had more than doubled his store size by the third year of operations. The industry and local forecasts for the next few years were very good and Andre was confident that his sales would keep growing at or above recent levels.

However, Andre had used up most of his available funds in expanding the business and was well aware that future growth would have to be funded with external sources of funds. What was worrying

Andre was the fact that over the past two years, the store's net income figures had been negative, and his cash flow situation had gotten pretty weak (See Tables 1 and 2). He figured that he had better take a good look at his firm's financial situation and improve it, if possible, before his suppliers found out. He knew fully well that being shut out by suppliers would be disastrous!

Andre's knowledge of finance and accounting, not unlike many small businessmen's, was very limited. He had often entertained the thought of taking some financial management courses, but could never find the time. One day, at his weekly bridge session, he happened to mention his problem to Tom Andrews, his long time friend and bridge partner. Tom had often given him good advice in the past and Andre was desperate for a solution. "I'm no finance expert, Andre," said Tom, "but you might want to contact the finance department at our local university's business school and see if you can hire an MBA student as an intern. These students can often be very insightful, you know."

That's exactly what Andre did. Within a week he was able to recruit Juan Plexo, a second semester MBA student, who had an undergraduate degree in Accountancy and was interested in concentrating in Finance. When Juan started his internship, Andre explained exactly what his concerns were. "I'm going to have to raise funds for future growth, and given my recent profit situation, the prospects look pretty bleak. I can't seem to put my finger on the exact cause. The bank's commercial loan committee is going to want some pretty convincing arguments as to why they should grant me the loan. I need to put some concrete remedial measures in place, and was hoping that you can help sort things out, Juan," said Andre. "I think I may have bitten off more than I can currently chew."

• Int. exp. in 1999 • D/TA ↑ in 2002
• NI ↓
• CF?
• retained ↓

• cash ↓
• receivables ↑
• inventory ↑

Table 1

Quickfix Autoparts
Balance Sheets

ASSETS	2000	2001	2002	2003	2004
Cash and marketable securities	$155,000	$309,099	$75,948	$28,826	$18,425
Accounts receivable	10,000	12,000	20,000	77,653	90,078
Inventory	250,000	270,000	500,000	520,000	560,000
Current assets	$415,000	$591,099	$595,948	$626,480	$668,503
Land, buildings, plant, and equipment	$250,000	$250,000	$500,000	$500,000	$500,000
Accumulated depreciation	(25,000)	(50,000)	(100,000)	(150,000)	(200,000)
Net fixed assets	$225,000	$200,000	$400,000	$350,000	$300,000
Total assets	$640,000	$791,099	$995,948	$976,480	$968,503
LIABILITIES AND EQUITIES					
Short-term bank loans	$50,000	$145,000	$140,000	$148,000	$148,000
Accounts payable	10,000	10,506	19,998	15,995	16,795
Accruals	5,000	5,100	7,331	9,301	11,626
Current liabilities	$65,000	$160,606	$167,329	$173,296	$176,421
Long-term bank loans	$63,366	$98,000	$196,000	$190,000	$183,000
Mortgage	175,000	173,000	271,000	268,000	264,000
Long-term debt	$238,366	$271,000	$467,000	$458,000	$447,000
Total liabilities	$303,366	$431,606	$634,329	$631,296	$623,421
Common stock (100,000 shares)	$320,000	$320,000	$320,000	$320,000	$320,000
Retained earnings	16,634	39,493	41,619	25,184	25,082
Total equity	$336,634	$359,493	$361,619	$345,184	$345,082
Total liabilities and equity	$640,000	$791,099	$995,948	$976,480	$968,503

Table 2

Quickfix Autoparts
Income Statements

	2000	2001	2002	2003	2004
Net sales	$600,000	$655,000	$780,000	$873,600	$1,013,376
Cost of goods sold	480,000	537,100	655,200	742,560	861,370
Gross profit	$120,000	$117,900	$124,800	$131,040	$152,006
Admin and selling exp	$30,000	$15,345	$16,881	$43,680	$40,535
Depreciation	25,000	25,000	50,000	50,000	50,000
Miscellaneous expenses	2,027	3,557	5,725	17,472	15,201
Total operating exp	$57,027	$43,902	$72,606	$111,152	$105,736
EBIT	$62,973	$73,998	$52,194	$19,888	$46,271
Interest on ST loans	$15,000	$15,950	$14,000	$13,320	$13,320
Interest on LT loans	8,000	7,840	15,680	15,200	14,640
Interest on mortgage	12,250	12,110	18,970	18,760	18,480
Total interest	$35,250	$35,900	$48,650	$47,280	$46,440
Before-tax earnings	$27,723	$38,098	$3,544	($27,392)	($169)
Taxes	11,089	15,239	1,418	(10,957)	(68)
Net income	$16,634	$22,859	$2,126	($16,435)	($102)
Dividends on stock	0	0	0	0	0
Addition to retained earnings	$16,634	$22,859	$2,126	($16,435)	($102)
EPS (100,000 shares)	$0.17	$0.23	$0.02	($0.16)	($0.00)

Questions:

1. How does Quickfix's average compound growth rate in sales compare with its earnings growth rate over the past five years?

2. Which statements should Juan refer to and which ones should he construct so as to develop a fair assessment of the firm's financial condition? Explain why?

3. What calculations should Juan do in order to get a good grasp of what is going on with Quickfix's performance?

4. Juan knows that he should compare Quickfix's condition with an appropriate benchmark. How should he go about obtaining the necessary comparison data?

5. Besides comparison with the benchmark what other types of analyses could Juan perform to comprehensively analyze the firm's condition? Perform the suggested analyses and comment on your findings.

6. Comment on Quickfix's liquidity, asset utilization, long-term solvency, and profitability ratios. What arguments would have to be made to convince the bank that they should grant Quickfix the loan?

7. If you were the commercial loan officer and were approached by Andre for a short-term loan of $25,000, what would your decision be? Why?

8. What recommendations should Juan make for improvement, if any?

9. What kinds of problems do you think Juan would have to cope with when conducting a comprehensive financial statement analysis of Quickfix Auto Parts? What are the limitations of financial statement analysis in general?

10

Bond Analysis and Valuation

Corporate Bonds–They Are More Complex Than You Think

Jill Dougherty was hired as an investment analyst by A.M. Smith Inc. for the Cincinnati, Ohio office based on her sound academic credentials, which included an MBA from a top ranking university and a CFA designation. At the time of her recruitment she was told that one of her responsibilities would be to conduct educational seminars for current and prospective clients.

A.M. Smith Inc., a prestigious investment services firm, with branches in 30 major metropolitan areas, had achieved most of its success due to its excellent client relations and focus on client support. The firm ranked among the very best in terms of the number of successful equity underwriting deals undertaken. Recently, a large utility company had hired it as the leading investment banker for a major corporate bond issue. Since most of its retail customers were more familiar with stock investments, John Sullivan, the branch manager at the Cincinnati office,

asked Jill to prepare and present a seminar outlining the various implications of fixed income investments. "About 60% of our investors are in the 55+ age group, Jill, so we should not have much trouble convincing them of the benefits of investing in bonds" remarked John. "However, they may need clarifications regarding various terms and concepts associated with fixed income investing. Your job is to convince them of the relative safety and income potential of corporate bonds" said John.

In preparation for the seminar, Jill called up a few of her best clients and queried them regarding their awareness of the risk and return potential associated with corporate bond investments. She realized that apart from a good knowledge about the current level and stability of interest rates and inflation, most customers were not very familiar about the finer aspects of bond investing. Bond features like callability, convertibility, sinking fund provision, bond ratings, debentures, interest rate risk, etc. were not well understood by most of the clients she interviewed. Most of them seemed awfully interested in knowing more about the opportunities offered by bond investing and Jill knew that she would have a good turnout at the seminar. She decided to refer back to her Finance textbook and dig out some definitions and examples that she could use in her PowerPoint presentation. She downloaded current data for outstanding bonds of various maturities, ratings, and coupon rates (see Table 1) and started preparing her slides.

Table 1

Corporate Bond Information

Issuer	Face Value	Coupon Rate	Rating	Quoted Price	Years until maturity	Sinking Fund	Call Period
ABC Energy	$1,000	5%	AAA	$703.1	20	Yes	3 Years
ABC Energy	$1,000	0%	AAA	$208.3	20	Yes	NA
TransPower	$1,000	10%	AA	$1092.0	20	Yes	5 Years
Telco Utilities	$1,000	11%	AA	$1206.4	30	No	5 Years

Questions:

1. How should Jill go about explaining the relationship between coupon rates and bond prices? Why do the coupon rates for the various bonds vary so much?

2. How are the ratings of these bonds determined? What happens when the bond ratings get adjusted downwards?

3. During the presentation one of the clients is puzzled why some bonds sell for less than their face value while others sell for a premium. She asks whether the discount bonds are a bargain. How should Jill respond?

4. What does the term "yield to maturity" mean and how is it to be calculated?

5. What is the difference between the "nominal" and effective yields to maturity for each bond listed in Table 1? Which one should the investor use when deciding between corporate bonds and other securities of similar risk? Please explain.

6. Jill knows that the call period and its implications will be of particular concern to the audience. How should she go about explaining the effects of the call provision on bond risk and return potential.

7. How should Jill go about explaining the riskiness of each bond? Rank the bonds in terms of their relative riskiness.

8. One of Jill's best clients poses the following question, "If I buy 10 of each of these bonds, reinvest any coupons received at the rate of 5% per year and hold them until they mature, what will my realized return be on each bond investment?" How should Jill respond?

11

Application of Stock Valuation Methods

How Low Can It Go?

Dwayne sat at his desk wondering what he should do. Having opted for early retirement, six months ago, he knew that he needed to make some changes in the way his investment portfolio was structured. However, being primarily focused on science during his career, he had a fairly limited knowledge of stock selection and portfolio management. One thing was certain, though, Dwayne had an eagerness to learn and that's exactly what he planned to do during his appointment with his broker, Jonathan Price.

Dwayne Stevenson, aged 58, had joined the Pharmacopia Company approximately thirty years ago, as a post-doctoral researcher in the field of immunology. His strong work ethic and knowledge of science enabled him to progress steadily along the research track of the company. He won a number of awards and earned many promotions along the way. Five years ago, Dwayne earned the coveted title of "Research 5 Scientist" enjoyed by only 4 other individuals in the corporation. One of the main

advantages of gaining the "Research 5" status was that he was given stock options as part of his remuneration package. At that time, shares of Pharmacopia (PCU) were trading at $30 per share. The company had annual sales in excess of $5 billion and the sales and earnings growth forecasts for the next few years were good. The company had applied for Food and Drug Administration (FDA) approval for two highly promising drugs and had a number of others in the pipeline.

However, as luck would have it, about 3 years later, the firm suffered a few setbacks. The FDA did not approve a couple of its applications and the Environmental Protection Agency (EPA) was investigating Pharmacopia for possible dumping violations. Besides, the patents on two of its best selling drugs had expired and generic versions began to flood the market. Needless to say, the firm's sales began to suffer and profits began to shrink sending its stock price into a downward spiral. "Downsizing" and cost cutting were buzzwords that could be heard throughout the firm and on Wall Street.

About a year later, Dwayne was offered the option to take early retirement, primarily because his project was one that had not gained FDA approval. The severance package offered by the company was too good to turn down so Dwayne opted for early retirement. Part of the retirement package included a significant amount of company stock, which was trading at $12 at the time.

As a result of having exercised stock options and his early-retirement package, Dwayne had accumulated over 100,000 shares of PCU's common stock. This caused his investment portfolio to not be well diversified and Dwayne knew that he needed to restructure it. With PCU's stock price having declined to $8 per share in recent months, Dwayne wondered whether he should sell the stock or hold it until it reached a better price. Having had very little financial and investment training, Dwayne contacted his broker, Jonathan Price, for some advice. His main question to Jonathan was, "How low can it go?"

Jonathan told him to hold on to the stock because his calculations showed that it was significantly undervalued at $8 per share and should rise to about $28 per share in a few months. He felt that the company was having temporary regulatory problems and should be able to weather the storm quite well. He said that the current intrinsic value of the stock, in his opinion, was in the range of $10 - $20. Not convinced, Dwayne asked him to explain how he arrived at that range. Jonathan

replied that he used alternate forms of the dividend discount model, to which Dwayne responded, "Dividend what?" Jonathan realized that he would have to give Dwayne a primer on stock valuation and set up an appointment for the following week.

In preparation for the appointment, Jonathan prepared Table 1 showing the sales, net income, earnings per share, and dividend per share data for the prior 10-year period. In addition, he estimated the firm's beta and noted down the risk-free rate, market risk premium, and the expected growth rate of the pharmaceutical industry (shown in Table 2). Jonathan knew that he would have to keep his explanations simple, yet convincing, and expected to be faced with many difficult questions.

Table 1

Pharmacopia Company
Key Financial Data for Prior 10-year Period
(in $ millions except EPS, DPS)

Year	Sales	Net Income	EPS	DPS
1995	3,000	150	1.50	0.6
1996	3,200	160	1.60	0.64
1997	4,000	200	2.00	0.80
1998	4,400	220	2.20	0.88
1999	4,800	240	2.40	0.96
2000	5,000	250	2.50	1.00
2001	5,200	260	2.60	1.04
2002	5,100	255	2.55	1.02
2003	4,900	245	2.45	0.98
2004	4,700	235	2.35	0.94

Table 2

Systematic Risk, Industry Growth Rate, Interest Rates

Beta	1.1
30-year Treasury Bond Yield	5.1%
Expected Market Risk Premium	9%
Industry Average Growth rate	10%

Estimate the intrinsic value of the stock; give a range

Questions:

1. How should Jonathan describe the rationale of the dividend discount model (DDM) and demonstrate its use in calculating the justifiable price of common stock?

2. Being a researcher, Dwayne asked Jonathan a key question, "How did you estimate the growth rates used in applying the model?" Using the data given in Tables 1 and 2 explain how Jonathan should respond.

3. What is the rationale of the required rate of return that Jonathan used and how did he estimate it?

4. "What other variations of the DDM can one use and why?" asked Dwayne. What should Jonathan's response be?

5. "Why are you using dividends and not earnings per share, Jonathan?" asked Dwayne. What do you think Jonathan would have said?

6. Dwayne wondered whether Pharmacopia's preferred stock would be a better investment than its common stock, given that it was paying a dividend of $1.50 and trading at a price of $15. He asked Jonathan to explain to him the various features of preferred stock, how it differed from common stock and corporate bonds, and the method that could be used for estimating its value.

13

Estimating Cash Flow – New Project Analysis

The Lazy Mower: Is It Really Worth It?

If there was one thing the folks at Innovative Products Inc. (IPI) knew well, it was how to come up with useful and unique products in the midst of economic adversity. With current year revenues considerably lower and profit margins shrinking due to severe price competition, the firm's engineers had been pushed really hard to develop a prototype of a useful, and hopefully, highly profitable "unique" product. Then, last month, the design team unveiled a fully-tested prototype of their latest innovation, the "remote-controlled" lawn mower, nick-named the "The Lazy Mower."

Surveys of retailers and customers, conducted by the marketing department, indicated that demand would be excellent, provided the price was lower than a riding lawn mower. The testing and development phases took almost 3 years and the final product passed all safety hazard tests with flying colors. After the unveiling, the product was exhibited at various home shows nationwide and received raving reviews. Full

production had not yet started, however, because there had been a change in CEOs and the new CEO was highly conservative.

Before being given the "go ahead" to go into full-scale production of the Lazy Mower, the design team had to present a detailed feasibility study to the Capital Investment Committee (CIC), which was chaired by the Vice President of Finance, Pete Fieldstone. As was typical in a major undertaking of this type, the proposal had to include detailed cost and revenue estimates with sufficient documentation to substantiate the numbers.

Having been involved with more than a few of these kinds of proposals before, the head of the Design team, Dan Conklin, knew that he had better take every possible factor into consideration and be prepared for a tough and demanding question and answer session at the next committee meeting. Luckily for Dan, his assistant, Ron Howard, who had recently earned his Chartered Financial Analyst (CFA) designation, was an experienced and dependable employee. Prior to being hired by CPC three years ago, Ron had worked for another large engineering company for over 10 years. "Ron, we have to dot all the "i's" and cross all the "t's" on this one!" said Dan. "Or else, the big guys are going to tear us apart, coz we're talking major dollars here. Their main question is going to be, IS IT REALLY WORTH IT?"

So Dan and Ron began collecting the necessary information. They knew that to have a comprehensive feasibility study they would have to include the following:

1. Pro Forma statements showing expected annual revenues, variable costs, fixed costs, and net cash flows over the economic life of the project with appropriate supporting documentation;
2. Break-Even Analysis;
3. Sensitivity of the cash flows to alternative scenarios of sales growth and profit margins;

Based on the data provided by the Marketing department, they prepared Table 1, showing the expected unit sales of the Lazy Mower over its 10-year economic life and the expected selling price per unit. Note that the price of $1000 per unit was estimated to gradually drop to $900 per unit over the 10-year period reflecting competitive pressures. Depreciation for this project was based on the 7-year MACRS rates as shown in Table 2. The cost of equipment, including shipping, handling, and installation,

was estimated at $20 million. It was estimated that after 10 years, the equipment and tools could be sold for $4 million.

The manufacturing would be done in an unused plant of the firm. Similar plant locations could be leased for $10,000 per month. Fixed costs were estimated to be $1,500,000 per year while variable production costs per unit were expected to be $400. To get the project under way, additional inventory of $500,000 would be required. The company would increase its accounts payable by $600,000 and its accounts receivable by $1,000,000. Dan and Ron estimated that each year thereafter, the net working capital of the firm would amount to 5% of sales. The weighted average cost of capital was calculated to be 14%. Interest expenses on debt raised to fund the project were estimated to be $400,000 per year. The company's tax rate was expected to remain constant at 34%.

Table 1

Projected Unit Sales and Price for Lazy Mower

Year	Unit Sales	Unit Price
1	30,000	$1000
2	34,000	1000
3	38,800	1000
4	38,000	950
5	36,000	950
6	36,000	950
7	35,500	950
8	35,000	900
9	34,500	900
10	34,000	900

Table 2

Modified ACRS Depreciation Allowances

Year	3-Year	5-Year	7-Year
1	33.33%	20.00%	14.29%
2	44.44	32.00	24.49
3	14.82	19.20	17.49
4	7.41	11.52	12.49
5		11.52	8.93
6		5.76	8.93
7			8.93
8			4.45

Questions:

1. Prepare a Pro Forma Statement showing the annual cash flows resulting from the Lazy Mower project.

2. Use a scenario analysis to show how the cash flows would change if the sales forecasts were 15% worse (Pessimistic) and 15% better (Optimistic) than the stated forecast (base).

3. Realizing that the CIC will demand some kind of sensitivity analyses, how should Dan and Ron prepare their report? Which variables or inputs are obvious ones that need to be analyzed using multiple values? Explain by performing suitable calculations.

4. How should the annual interest expenses of $400,000 be treated? Explain.

5. Using the base case estimates calculate the cash, accounting, and financial breakeven of the Lazy Mower project. Interpret each one.

6. Let's say that the company had spent $500,000 in developing the prototype of the Lazy Mower. How should Dan and Ron treat this item in their report? Please explain.

7. Calculate the IRR of the project. Based on your calculations what would you recommend? Why?

8. How sensitive is the Net Present Value of the project to the cost of capital?

9. Calculate the operating leverage entailed by this project. What does it indicate?

10. What other types of contingency planning should Dan and Ron include to make the report comprehensive? Please explain the relevance of each suggestion.

- Frame problem: portfolio theory
- name to $ risk with retirement
- different perspectives toward risk
- high/low β portfolios
- discuss β

17

Flirting with Risk

When Mary Owens' husband, Ralph, passed away about three months ago he left behind a small fortune, which he had accumulated by living a very thrifty life and by investing in common stocks. Ralph had worked as an engineer for a surgical instruments manufacturer for over 30 years and had taken full advantage of the company's voluntary retirement savings plan. However, instead of buying a diversified set of investments he had invested his money into a few high growth companies. Over time his investment portfolio had grown to about $900,000 being primarily comprised of the stocks of 3 companies. He was very fortunate that his selections turned out to be good ones and after numerous stock-splits the prices of the three companies had appreciated significantly over time.

Mary, on the other hand, was a very conservative and cautious person. She had devoted her life to being a stay-home mom and had raised their two kids into fine adults, each of whom had a fairly

successful career. Jim, 28, had followed in Ralph's footsteps. In addition to being gainfully employed as an engineer, he was pursuing an MBA at a prestigious business school. Annette, 26, was completing her residency at a major metropolitan hospital. Although Mary and Ralph had enjoyed a wonderful married life, it was Ralph who managed almost all the financial affairs of their family. Mary, like many spouses of their generation, preferred to focus on other family matters.

It was only after Ralph's passing on that Mary realized how unprepared she was for the complex decisions that have to be made when managing one's wealth. Upon the advice of her close friend, Agnes, Mary decided to call the broker's office and request that her account be turned over to Bill May, the firm's senior financial advisor. Agnes, a widow herself, had been very happy with Bill's advice and professionalism. He had helped her rebalance and re-allocate her portfolio with the result that her portfolio's value had steadily increased over the years without much volatility.

At their first meeting, Bill examined the Owens' portfolio and was shocked at how narrowly focused its composition had been. In fact, just during the past year --due to the significant drop in the technology sector --the portfolio had lost almost 30% of its value. "Ralph, certainly liked to flirt with risk," said Bill. "The first thing we are going to have to do is diversify your portfolio and lower its beta. As it stands you could make a lot of money if the technology sector takes off, but the reverse scenario could be devastating. I am sure you will agree with me that given your status in life you do not need to bear this much of risk." Mary shrugged her shoulders and looked blankly at Bill. "Diversify…Beta… what are you talking about? These terms are new to me and so confusing. You are right, Bill, I don't need the high risk but can you explain to me how the risk level of my portfolio can be lowered?" Bill realized right away that Mary needed a primer on the risk-return tradeoff and on portfolio management. Accordingly, he scheduled another appointment for later that week and prepared the following exhibit to demonstrate the various nuances of risk, expected return, and portfolio management.

$\sigma(R) = [.2(-10\% - 5.9\%)^2 + .2(-6\% - 5.9\%)^2 + \dots]^{1/2}$

Exhibit 1

$E(R) = 5.9\%$

Expected Rate of Return

Scenario	Probability	Treasury Bill (R_f)	Index Fund	Utility Company	High-Tech Company	Counter-Cyclical Company
		0	1.0	0.21	1.93	-1.01
Recession	20%	5%	-10%	6%	-25%	20%
Near Recession	20%	5%	-6%	7%	-20%	16%
Normal	30%	5%	12%	9%	15%	12%
Near Boom	10%	5%	15%	11%	25%	-9%
Boom	20%	5%	20%	14%	35%	-20%

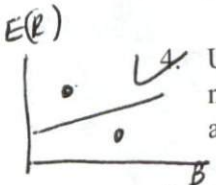
- $E(R)$, $\sigma(R)$
- Obtain req. ror from CAPM and compare w/ $E(R)$ for each stock

Questions:

1. Imagine you are Bill. How would you explain to Mary the relationship between risk and return of individual stocks?

2. Mary has no idea what beta means and how it is related to the required return of the stocks. Explain how you would help her understand these concepts.

3. How should Bill demonstrate the meaning and advantages of diversification to Mary?



4. Using a suitable diagram explain how Bill could use the security market line to show Mary which stocks could be undervalued and which may be overvalued?

5. During the presentation. Mary asks Bill "Let's say I choose a well diversified portfolio, what effect will interest rates have on my portfolio?" How should Bill respond?

6. Should Bill take Mary out of investing in stocks and preferably put all her money in fixed-income securities? Explain.

7. Mary tells Bill, "I keep hearing stories about how people have made thousands of dollars by following their brokers' 'hot tips.' Can you give me some hot tips regarding undervalued stocks?" How should Bill respond?

8. If Mary decided to invest her money equally in high-tech and counter-cyclical stocks, what would her portfolio's expected return and risk level be? Are these expectations realistic? Please explain.

9. What would happen if Mary were to put 70% of her portfolio in the High-Tech stock and 30% in the Index Fund? Would this combination be better for her? Explain.

10. Based on these calculations what do you think Bill should propose as a possible portfolio combination for Mary?

19

Determining the Cost of Capital

Can One Size Fit All?

The Oceanic Corporation, a Chesapeake, VA based company, was established in 1994. Glenn Rodgers III founded the corporation, which was privately owned at the time, after his retirement from Norentech Corporation.

The Oceanic Corporation was originally formed to provide ship repair services and quickly earned a Department of Defense (DOD) certified Alteration Boat Repair (ABR) designation. Among its specialties were structural welding, piping system installation and repairs, electrical, painting, rigging, machinery and dry-dock work, as well as custom sheet metal fabrication. Other divisions of The Oceanic included Habitability Installation, Industrial Contracting, and Alteration/Installation Teams (AIT). With its initial success and good return on investment the firm opened and operated facilities in California, New Jersey, Florida, Maryland, Pennsylvania and Washington.

In 1998, the company went public and its initial public offering was very successful. The stock price had risen from its initial value of $10 to its current level of $35 per share. There were currently 5 million shares outstanding. In 1999, the company issued 30-year bonds at par, with a face value of $1000 and a coupon rate of 10% per year, and managed to raise $40 million for expansion. Currently, the AA-rated bonds had 25 years left until maturity and were being quoted at 91.5% of par. YTM ↑ 10%

Over the past year, The Oceanic Corporation utilized a new method for fabricating composite materials that the firm's engineers had developed. In June of last year, management established the Advanced Materials Group (AM Group), which was dedicated to pursuing this technology. The firm recruited Larry Stone, a senior engineer, to head the AM Group. Larry also had an MBA from a prestigious university under his belt.

Upon joining Oceanic, Larry realized that most projects were being approved on a "gut feel" approach. There were no formal acceptance criteria in place. Up until then, the company had been lucky in that most of its projects had been well selected and it had benefited from good relationships with clients and suppliers. "This has to change," said Larry to his assistant Stephanie, "we can't possibly be this lucky forever. We need to calculate the firm's hurdle rate and use it in future." Stephanie Phillips, who had great admiration for her boss, replied, "Yes, Larry, why don't I crunch out the numbers and give them to you within the next couple of days?" "That sounds great, Stephanie," said Larry. "My years of experience tell me that when it comes to the hurdle rate for new projects, one size hardly ever fits all!"

As Stephanie began looking at the financial statements, she realized that she was going to have to make some assumptions. First, she assumed that new debt would cost about the same as the yield on outstanding debt and would have the same rating. Second, she assumed that the firm would continue raising capital for future projects by using the same target proportions as determined by the book values of debt and equity (see Table 1 for recent balance sheet). Third, she assumed that the equity beta (1.5) would be the same for all the divisions. Fourth, she assumed that the growth rates of earnings and dividends would continue at their historical rate (see Table 2 for earnings and dividend history). Fifth, she assumed that the corporate tax rate would be 34%, and finally, NO!

she assumed that the flotation cost for debt would be 5% of the issue price and that for equity would be 10% of selling price. The 1-year Treasury bill yield was 4% and the expected rate of return on the market portfolio was 10%.

Table 1

The Oceanic Corporation Balance Sheet *('000s)*			
Cash	5000	Accounts Payable	8000
Accounts Receivables	10000	Accruals	5000
Inventory	20000	Notes Payable	10000
Total Current Assets	*35000*	*Total Current Liabilities*	*23000*
Land&Buildings (net)	43000	Long-term debt	40000
Plant and Equipment (net)	45000	Common stock	
Total Fixed Assets	*88000*	*(5 million shares outstanding)*	50000
		Retained Earnings	10000
Total Assets	*123000*	*Total liabilities and shareholders' equity*	*123000*

Table 2

The Oceanic Corporation
Sales, Earnings, and Dividend History
('000s)

Year	Sales	Earnings per Share	Dividends per Share
1998	$24,000,000	$ 0.48	$ 0.10
1999	28,800,000	0.58	0.12
2000	36,000,000	0.72	0.15
2001	45,000,000	0.86	0.18
2002	51,750,000	0.96	0.20
2003	62,100,000	1.06	0.22
2004	74,520,000	1.20	0.25

Questions:

1. Why do you think Larry Stone wants to estimate the firm's hurdle rate? Is it justifiable to use the firm's weighted average cost of capital as the divisional cost of capital? Please explain.

2. How should Stephanie go about figuring out the cost of debt? Calculate the firm's cost of debt.

3. Comment on Stephanie's assumptions as stated in the case. How realistic are they?

4. Why is there a cost associated with a firm's retained earnings?

5. How can Stephanie estimate the firm's cost of retained earnings? Should it be adjusted for taxes? Please explain.

6. Calculate the firm's average cost of retained earnings.

7. Can flotation costs be ignored in the analysis? Explain.

8. How should Stephanie calculate the firm's hurdle rate? Calculate it and explain the various steps.

9. Can Larry assume that the hurdle rate calculated by Stephanie would remain constant? Please explain.

20

Divisional Costs of Capital

We Are Not All Alike!

Pamela Sanderson was at it again! It seemed like she made waves wherever she went. At her previous job, which incidentally was also with a Fortune 500 company, Pamela had successfully implemented a system of evaluating projects based on differential (risk-adjusted) hurdle rates. However, the change caused so much uproar and unpleasantness among divisional heads that Pamela knew her days at the job were numbered. Eventually she quit and given her sound credentials had no trouble finding another job.

At her current job as Vice President of Finance for Southern Modular Systems, Pamela had to evaluate proposals that came in for funding from the firm's three product divisions: Defense, Consumer Products, and Industrial Supply. During her very first month at the job, she was presented with three funding requests, one from each department (see Table 1 for project cost and cash flow projections). Being unclear as to what the policy was regarding the hurdle rate to be used in evaluating

such projects, Pamela decided to calculate the company's weighted average cost of capital herself. After carefully analyzing the firm's financial statements and talking to the underwriters, Pamela estimated that the firm's weighted average cost of capital was around 14%. When she consulted with her boss, Marty Puchala, she was pleased to learn that the firm had been using 14% recently as the hurdle rate for all project evaluations. What troubled her was the fact that like her previous employer, these folks too were not using differential hurdle rates for the three different divisions. "Here we go again," thought Pamela. "I should have asked about this at the interview. Oh well! I guess it's too late now. I've got to do what I've got to do!"

Southern Modular Systems Inc., based in Charlotte, NC, employed 5200 people at its various corporate and manufacturing facilities. Its three divisions, Defense, Consumer Products, and Industrial Supply, were organized on the basis of the type of products manufactured and the clientele served. The Defense Division accounted for around 55% of the sales volume, while the other two divisions split the balance. The company manufactured and supplied high quality storage units made from aluminum, plastic, and wood. During the past few years the Defense division had done extremely well and was bringing in the majority of the firm's profits. However, as is typical of most defense contractors, there had been significant volatility in its sales and earnings figures over the past eight years. The Consumer Products and Industrial Supply divisions had been far less volatile but their profit margins had been lower. Overall though, the firm was fairly well diversified and its beta had been estimated at 1.1.

Pamela decided that she had better figure out a more logical method of adjusting the divisional hurdle rates, because she strongly believed that failure to do so would result in the firm making unwise capital budgeting decisions. Given her training and philosophy there was no way she was going to allow projects to be evaluated without due consideration being given to their respective volatilities. "We are not all alike," she said to her boss, Marty, "and we should not pretend to be. Don't you agree?" To her good luck, Marty agreed. So Pamela went to work.

The first thing she did was refer back to her notes from graduate school (they do come in handy sometimes, you know) and remembered that there were two ways she could go about doing the adjustment for

differences in risk across corporate divisions. One way was to measure or collect the equity betas of comparable homogeneous companies and substitute those in place of the firm's overall beta when calculating the weighted average cost of capital. The other way was to simply adjust the firm's weighted average cost of capital up or down based on the relative variability of each division's sales and/or earnings. After doing some research on the Internet, Pamela decided against the first option because most of the firm's competitors were involved in multiple industry sectors. Accordingly, she decided to go ahead with the second alternative and requested the accounting department to provide her with quarterly sales data for the prior eight years broken down by divisions (Table 2). She decided to calculate the relative variability of each division's revenues with respect to that of the overall firm and accordingly adjust the firm's hurdle rate when evaluating proposals submitted by each department.

After doing some quick calculations, Pamela sent off emails to the Vice-Presidents of the three divisions setting up a time for a meeting. Somehow, Pamela knew that it was not going to be a pleasant meeting.

Table 1

Projected Costs, Lives, and Cash inflows of Divisional Proposals

Division	Cost	Life	Annual Net Cash Flow
Defense	$ (1,400,000)	5	$400,000
Consumer Products	$ (1,600,000)	6	$390,000
Industrial Supply	$ (1,800,000)	7	$396,000

Table 2

Divisional Breakdown of Quarterly Revenues

	------Quarterly Revenues-------			
Quarter	Defense Products	Consumer Products	Industrial Products	Consolidated
1	2,800,000	1,725,000	1,620,000	6,145,000
2	2,940,000	1,776,750	1,668,600	6,385,350
3	3,087,000	1,830,053	1,718,658	6,635,711
4	3,241,350	1,884,954	1,770,218	6,896,522
5	3,403,418	1,941,503	1,823,324	7,168,244
6	3,573,588	1,999,748	1,878,024	7,451,360
7	3,680,796	2,059,740	1,934,365	7,674,901
8	3,791,220	2,121,532	1,992,396	7,905,148
9	3,904,957	2,185,178	2,052,168	8,142,302
10	4,022,105	2,250,734	2,113,733	8,386,571
11	4,142,768	2,318,256	2,177,145	8,638,169
12	4,267,051	2,387,803	2,242,459	8,897,314
13	4,395,063	2,459,438	2,309,733	9,164,233
14	4,526,915	2,533,221	2,379,025	9,439,160
15	4,662,722	2,609,217	2,450,395	9,722,335
16	4,429,586	2,687,494	2,523,907	9,640,987
17	4,695,361	2,768,119	2,599,624	10,063,104
18	4,883,176	2,851,162	2,677,613	10,411,951
19	5,078,503	2,936,697	2,757,942	10,773,141
20	5,281,643	3,024,798	2,840,680	11,147,121
21	5,492,909	3,115,542	2,925,900	11,534,351
22	5,712,625	3,209,008	3,013,677	11,935,310
23	5,941,130	3,305,278	3,104,088	12,350,496
24	6,178,775	3,404,437	3,197,210	12,780,422
25	6,487,714	3,506,570	3,325,099	13,319,382
26	6,812,100	3,611,767	3,424,852	13,848,718
27	7,152,705	3,720,120	3,527,597	14,400,422
28	7,510,340	3,831,724	3,668,701	15,010,764
29	7,885,857	3,946,675	3,778,762	15,611,294
30	8,280,150	4,065,075	3,892,125	16,237,350
31	8,694,157	4,187,028	4,008,889	16,890,074
32	9,400,000	4,300,000	4,125,000	17,825,000

$\frac{\sigma_1}{\bar{X}_1}$ $\frac{\sigma_2}{\bar{X}_2}$ $\frac{\sigma_3}{\bar{X}_3}$ $\frac{\sigma}{\bar{X}}$

Questions:

1. Using the data given in Table 2, determine the relative variability of each division's sales as compared to that of the consolidated firm. Which one is the riskiest and why?

2. Explain the process by which Pamela must have determined the hurdle rate for the entire company. The corporate tax rate was 40%, the yield on outstanding bonds was 11%, treasury bills were yielding 4% and the market risk premium was estimated at 10%. The company currently had 30% of its capital in the form of debt and the remaining in the form of common stock.

3. What is meant by the "pure play" approach to estimating the required return on an investment?

4. Using Pamela's methodology of adjusting the firm's hurdle rate based on the relative variability of each division's sales in relation to that of the consolidated firm, calculate the divisional hurdle rates.

5. Comment on this methodology of estimating the divisional hurdle rates. Do you agree with it or not? Explain your answer.

6. Using the firm's overall weighted average cost of capital evaluate the three divisions' project proposals. What are your findings?

7. How are the decisions affected when the divisional hurdle rates are used instead?

24

Debt Versus Equity Financing

- finance $5m?
- use debt @ 10%
- use equity @ $15 share
- make a recommendation

Look Before You Leverage!

- model both impacts with a pro forma
- analyze results
- decide

"Why do things have to be so complicated?" said Bob to Andrew, as he sat at his desk shuffling papers around. "I need you to come up with a convincing argument." Bob's company, Symonds Electronics, had embarked upon an expansion project, which had the potential of increasing sales by about 30% per year over the next 5 years. The additional capital needed to finance the project had been estimated at $5,000,000. What Bob was wondering about was whether he should burden the firm with fixed rate debt or issue common stock to raise the needed funds. Having had no luck with getting the board of directors to vote on a decision, Bob decided to call on Andrew Lamb, his Chief Financial Officer, to shed some light on the matter.

Bob Symonds, the Chief Executive Officer of Symonds Electronics, established his company about 10 years ago in his hometown of Cincinnati, Ohio. After taking early retirement at age 55, Bob felt that he could really capitalize on his engineering knowledge and contacts

within the industry. Bob remembered vividly how easily he had managed to get the company up and running by using $3,000,000 of his own savings and a five-year bank note worth $2,000,000. He recollected how uneasy he had felt about that debt burden and the 14% per year rate of interest that the bank had been charging him. He remembered distinctly how relieved he had been after paying off the loan one year earlier than its five-year term, and the surprised look on the bank manager's face.

Business had been good over the years and sales had doubled about every 4 years. As sales began to escalate with the booming economy and thriving stock market, the firm had needed additional capital. Initially, Bob had managed to grow the business by using internal equity and spontaneous financing sources. However, about 5 years ago, when the need for financing was overwhelming, Bob decided to take the company public via an initial public offering (IPO) in the over-the-counter market. The issue was very successful and oversubscribed, mainly due to the superb publicity and marketing efforts of the investment underwriting company that Bob had hired. The company sold 1 million shares at $5 per share. The stock price had grown steadily over time and was currently trading at its book value of $15 per share.

When the expansion proposal was presented at last week's board meeting, the directors were unanimous about the decision to accept the proposal. Based upon the estimates provided by the marketing department, the project had the potential of increasing revenues by between 10% (Worst Case) and 50% (Best Case) per year.

The internal rate of return was expected to far outperform the company's hurdle rate. Ordinarily, the project would have been started using internal and spontaneous funds. However, at this juncture, the firm had already invested all its internal equity into the business. Thus, Bob and his colleagues were hard pressed to make a decision as to whether long-term debt or equity should be the chosen method of financing this time around.

Upon contacting their investment bankers, Bob learned that they could issue 5-year notes, at par, at a rate of 10% per year. Conversely, the company could issue common stock at its current price of $15 per share. Being unclear about what decision to make, Bob put the question to a vote by the directors. Unfortunately, the directors were equally divided in their opinion of which financing route should be chosen. Some of the directors felt that the tax shelter offered by debt would help reduce the

firm's overall cost of capital and prevent the firm's earnings per share from being diluted. However, others had heard about "homemade leverage" and would not be convinced. They were of the opinion that it would be better for the firm to let investors leverage their investments themselves. They felt that equity was the way to go since the future looked rather uncertain and being rather conservative, they were not interested in burdening the firm with interest charges. Besides, they felt that the firm should take advantage of the booming stock market.

Feeling rather frustrated and confused, Bob decided to call upon his chief financial officer, Andrew Lamb, to resolve this dilemma. Andrew had joined the company about two years ago. He held an MBA from a prestigious university and had recently completed his Chartered Financial Analysts' certification. Prior to joining Symonds, Andrew had worked at two other publicly traded manufacturing companies and had been successful in helping them raise capital at attractive rates, thereby lowering their cost of capital considerably.

Andrew knew that he was in for a challenging task. He felt, however, that this was a good opportunity to prove his worth to the company. In preparation of his presentation, he got the latest balance sheet and income statement of the firm (see Tables 1 and 2) and started crunching out the numbers. The title of his presentation read, "Look Before You Leverage!"

Table 1

Symonds Electronics Inc.
Latest Balance Sheet

Cash	1,000,000	Accounts Payable	3,000,000
Accounts Receivables	3,000,000	Accruals	2,000,000
Inventories	4,000,000		
Current Assets	8,000,000	Current Liabilities	5,000,000
Net Fixed Assets	12,000,000	Paid in Capital	5,000,000
		Retained Earnings	10,000,000
Total Assets	20,000,000	Total Liabilities & Owner's Equity	20,000,000

Table 2

Symonds Electronics Inc. Latest Income Statement	
Sales	15,000,000
Cost of Goods Sold	10,500,000
Gross Profit	4,500,000
Selling and Adm. Exp	750,000
Depreciation	1,500,000
EBIT	2,250,000
Taxes (40%)	900,000
Net Income	1,350,000

Questions:

1. If Symonds Electronics Inc. were to raise all of the required capital by issuing debt, what would the impact be on the firm's shareholders?

2. What does "homemade leverage" mean? Using the data in the case explain how a shareholder might be able to use homemade leverage to create the same payoffs as achieved by the firm.

3. What is the current weighted average cost of capital of the firm? What effect would a change in the debt to equity ratio have on the weighted average cost of capital and the cost of equity capital of the firm?

4. The firm's beta was estimated at 1.1. Treasury bills were yielding 4% and the expected rate of return on the market index was estimated to be 12%. Using various combinations of debt and equity, under the assumption that the costs of each component stay constant, show the effect of increasing leverage on the weighted average cost of capital of the firm. Is there a particular capital structure that maximizes the value of the firm? Explain.

5. How would the key profitability ratios of the firm be affected if the firm were to raise all of the capital by issuing 5-year notes?

6. If you were Andrew Lamb, what would you recommend to the board and why?

7. What are some issues to be concerned about when increasing leverage?

8. Is it fair to assume that if profitability were positively affected in the short run, due to the higher debt ratio, the stock price would increase? Explain.

9. Using suitable diagrams and the data in the case explain how Andrew Lamb could enlighten the board members about Modigliani and Miller's Propositions I and II (with corporate taxes).

26

Dividend Policy

Is It Much Ado About Nothing?

It was the end of the fourth quarter. The financial statements had been prepared and circulated to the directors of The New Wave Corporation (see Tables 2 and 3). The firm's revenues had surpassed the previous quarter's revenues by over 20% and the annual sales were approximately 15% higher as well. More importantly, the net income figures for the year were up by more than 25%. The restructuring and cost cutting seemed to have paid off. Needless to say, the mood at the corporate headquarters in Dallas, Texas was upbeat and full of cheer. This year's performance ended a long streak of "down" years and mounting losses. The big question weighing heavily on everyone's minds was "When will they ever pay a dividend?" That exactly was to be the main topic of discussion at that day's meeting of the board of directors.

Edwin Rosewood, a retired biochemist, founded The New Wave Corporation, approximately 12 years ago in his hometown of Skokie, Illinois. With $500,000 of his own money and the rest borrowed from a local banker, Edwin started manufacturing various patented lotions, hair

color dyes, and facial creams in his small facility. Initially, business was slow and it took the company almost 3 years before it made its first profit. Soon thereafter, having struck some major deals with overseas clients, New Wave began to do well. Sales started to climb and the company shifted its headquarters to Dallas, Texas, after issuing 1,000,000 shares in an initial public offering. Although the company made good profits during the next 4 years, the board of directors had decided to retain all of the earnings and reinvest them into the business. They did so for a couple of years and then owing to a downturn in the economy and excessive expenses, the company ended a number of years in the red. Luckily, the company had not accumulated excessive amounts of debt and was able to withstand the difficult times quite well. During this down period the stock price went from a high of $25 to a low of $2. It was currently trading at $8 per share with a P/E ratio of 8.33.

As the directors gathered together for the meeting, Ed, the President and Chief Executive officer, knew that this was going to be an interesting meeting given the significantly different backgrounds, personalities, and beliefs of the directors. No sooner had he completed his introductory remarks and popped the question regarding the dividend policy issue than....Joe Smolinski raised his hand, "Why fix it, if it ain't broke?" he said in his usual flippant style. "I think we should continue retaining all our earnings and use the money for future investments. I think it would be financially imprudent for us to pay dividends when we know that we are going to have to raise $1,000,000 for that expansion project we had approved last month. Why pay the flotation costs? Besides, don't stock prices almost always drop after the payment of dividends?"

Edwin knew that he had opened a can of worms. He could just feel the room begin to erupt. Right enough, up went Jim Baker's long arm. "I think we owe it to our shareholders. They have waited a long time for a dividend and might vote with their feet if we don't pay any dividends. I think we should identify our existing shareholder groups and make a decision based on what the majority prefers" (see Table 1 for shareholding information).

Janet Long, who had a degree in finance from one of the top schools in the country, and had read about Modigliani and Miller's (M&Ms) "dividend irrelevancy" proposition, couldn't hold back any longer. "Gentlemen," she said. "Isn't this much ado about nothing? I

think we are wasting our time arguing about whether or not dividends should be paid and if so, how much. I think it really doesn't matter one way or the other as far as stock prices are concerned. Those shareholders who don't like our dividend policy can create 'homemade dividends' for all I care. I think we need to move on to more important issues, like where we are going to have our next annual general meeting." Surprisingly, nobody smiled. "Folks, I'm just kidding." she said. "I think we should use the 'residual dividend' approach," said Bob McKay. "That way we can keep our shareholders happy and maintain our target capital structure. I tend to agree with Jim. The shareholders are expecting some kind of dividend and if we don't deliver, we could be hurting the stock price. But we have to be able to continue supporting whatever dividend payout ratio we go with or else the negative information backlash could come back to haunt us."

Edwin, who had kept silent through much of this discussion, finally broke in, "I have somewhat of a different suggestion," he said. "Why don't we figure out how much we can afford to pay out based on our immediate investment needs and target capital structure and then repurchase stock at the prevailing market price with what's left over. That way there would be less of a tax disadvantage to our rich clients and it wouldn't be bad for our EPS either. What do you all think?" There was a long pause in the room. The directors had not considered this option and were stumped. "Let's all go back and rework the numbers," said Edwin, eager to break the silence. "We'll sort this out by tomorrow. Now, let's move on to the next item on the agenda."

Table 1

The New Wave Corporation
Analysis of shareholder groups

Investor group	Number of shareholders	Shares held	% of total shares held
Pension funds	20	240,000	24%
Insurance companies	10	60,000	6%
Mutual Funds	50	130,000	13%
Individuals	10,000	570,000	57%
	10,080	1,000,000	100%

Table 2

The New Wave Corporation
Income Statement

	Current Year
Sales	$ 20,000,000
Cost of goods sold	14,400,000
Gross profit	5,600,000
Selling and administration expenses	3,365,000
Depreciation	300,000
Earnings before interest and taxes	1,935,000
Interest expense	335,000
Earnings before taxes	1,600,000
Taxes	640,000
Net Income	960,000

Table 3

The New Wave Corporation
Balance Sheet

Cash	$ 250,000	Accounts Payable	$ 300,000
Accounts Receivable	$ 450,000	Accruals	$ 250,000
Inventory	$ 675,000	Deferred taxes	$ 100,000
Total Current Assets	$ 1,375,000	**Total Current Liabilities**	$ 650,000
		Long-term debt	$ 3,350,000
Net Fixed Assets	$ 8,000,000	**Total Liabilities**	$ 4,000,000
		Common stock:	
Intangibles	$ 625,000	Par Value	$ 2,000,000
		Paid In Capital	$ 3,000,000
		Retained Earnings	$ 1,000,000
		Shareholders' Equity	$ 6,000,000
Total Assets	$ 10,000,000	**Total Liabilities& Shareholders' Equity**	$10,000,000

Questions:

1. Comment on Joe Smolinski's suggestion of not paying any dividend. What are the pros and cons of such a policy?

2. Critically evaluate Jim Baker's argument that shareholders are expecting a dividend and if not paid one the share price will suffer. Does he have a point? Please explain.

3. What did Janet Long mean when she said, "those shareholders who don't like our dividend policy can create 'homemade dividends'"? How can one make homemade dividends? Assume you are a shareholder who owns 1000 shares and are expecting the company to pay at least $0.25 per share. If the company decides to retain all its earnings, how can you create homemade dividends?

4. What does the composition of shareholder groups within a corporation have to do with dividend policy? Based on the majority shareholding groups and their relative proportions of ownership in the company, what sort of dividend policy should New Wave adopt?

5. How does a residual dividend policy work? Based on a residual dividend policy how much dividend per share can the company afford to pay? Assume that the company's bonds are trading at par value.

6. What are some of the drawbacks of following a strict residual dividend policy? What do firms typically do in practice?

7. Critically evaluate Ed's suggestion of following a residual dividend policy accompanied by a repurchase of stock at $8 per share. What are the pros and cons of using a stock repurchase option instead of a cash dividend to distribute returns to shareholders?

8. Comment on the dividend policy debate at the New Wave Corporation. In your opinion should they pay dividends at all? Why or why not? If they decide to pay dividends, what kind of dividend policy should they adopt? Please explain.