

CHAPTER 10

1. Marshall's & Co. purchased a corner lot in Eglon City five years ago at a cost of \$660,000. The lot was recently appraised at \$800,000. At the time of the purchase, the company spent \$57,000 to grade the lot and another \$3,300 to build a small building on the lot to house a parking lot attendant who has overseen the use of the lot for daily commuter parking. The company now wants to build a new retail store on the site. The building cost is estimated at \$1,110,000. What amount should be used as the initial cash flow for this building project?
2. Ernie's Electrical is evaluating a project which will increase sales by \$80,000 and costs by \$45,000. The fixed asset required for the project will cost \$150,000 and belongs in a 15 percent CCA class. The applicable tax rate is 31 percent. What is the operating cash flow in the first year for this project?
3. Peter's Boats has sales of \$790,000 and a profit margin of 6 percent. The annual depreciation expense is \$80,000. What is the amount of the operating cash flow if the company has no long-term debt?
4. Sun Lee's Furniture just purchased some fixed assets classified which belong in a 40 percent CCA class. The assets cost \$30,000. What is the amount of the depreciation expense for the third year?
5. Ronnie's Custom Cars purchased some fixed assets two years ago for \$41,000. The assets belong in a 35 percent CCA class. Ronnie is considering selling these assets now so he can buy some newer fixed assets which utilize the latest in technology. Ronnie has been offered \$22,000 for his old assets. What is the net cash flow from the salvage value if the tax rate is 30 percent Ronnie's cost of capital is 12.0 percent, and the firm has additional assets in this CCA class?
6. A project is expected to create operating cash flows of \$23,500 a year for three years. The initial cost of the fixed assets is \$48,000. These assets will be worthless at the end of the project. An additional \$4,000 of net working capital will be required throughout the life of the project. What is the project's net present value if the required rate of return is 11 percent?
7. Tool Makers, Inc. uses tool and die machines to produce equipment for other firms. The initial cost of one customized tool and die machine is \$860,000. This machine costs \$9,000 a year to operate. Each machine has a life of 5 years before it is replaced, at which time it will have no salvage value. The machine belongs in a 40 percent CCA class. What is the equivalent annual cost of this machine if the required return is 12 percent and the firm faces a tax rate of 30 percent? (Round your answer to whole dollars)

CHAPTER 11

8. A firm is reviewing a project with labor cost of \$8.50 per unit, raw materials cost of \$21.21 a unit, and fixed costs of \$8,000 a month. Sales are projected at 12,000 units over the 3-month life of the project. What are the total variable costs of the project?
9. You are considering a new project. The project has projected depreciation of \$760, fixed costs of \$5,000, and total sales of \$12,260. The variable cost per unit is \$5.00. What is the accounting break-even level of production?
10. Ann Marie has noted that every time the sales quantity increases by 2 percent for a particular project, the operating cash flow for the project increases by 3.54 percent. What is the degree of operating leverage for this project if the contribution margin is \$6?

CHAPTER 16

11. Becker Industries is considering an all equity capital structure against one with both debt and equity. The all equity capital structure would consist of 30,500 shares of stock. The debt and equity option would consist of 17,000 shares of stock plus \$278,000 of debt with an interest rate of 6.5 percent. What is the break-even level of earnings before interest and taxes between these two options? Ignore taxes.
12. Martin and Sons (M and S) currently is an all equity firm with 40,000 shares of stock outstanding at a market price of \$15 a share. The company's earnings before interest and taxes are \$90,000. M and S has decided to add leverage to its financial structure by issuing \$550,000 of debt with a 6 percent interest rate. This \$550,000 will be used to repurchase shares of stock. You own 1,200 shares of M and S stock. You also loan out funds at a 6 percent rate of interest. How many of your shares of stock in M and S must you sell to offset the leverage that the firm is assuming? Assume that you loan out all of the funds you receive from the sale of your stock.
13. The Winter Wear Company has expected earnings before interest and taxes of \$1,800, an unlevered cost of capital of 14 percent and a tax rate of 33 percent. The company also has \$2,400 of debt that carries a 7 percent coupon. The debt is selling at par value. What is the value of this firm?
14. Anderson's Furniture Outlet has an unlevered cost of capital of 10 percent, a tax rate of 35 percent, and expected earnings before interest and taxes of \$1,400. The company has \$2,600 in bonds outstanding that have an 8 percent coupon and pay interest annually. The bonds are selling at par value. What is the cost of equity?

15. Your firm has expected earnings before interest and taxes of \$1,900. Your unlevered cost of capital is 11 percent and your tax rate is 33 percent. You have debt with both a book and a market value of \$2,400. This debt has an 8 percent coupon and pays interest annually. What is your weighted average cost of capital?

CHAPTER 17

16. You own 350 shares of Abco, Inc. stock. The company has stated that it plans on issuing a dividend of \$0.40 a share at the end of this year and then issuing a final liquidating dividend of \$2.00 a share at the end of next year. Your required rate of return is 8 percent. Ignoring taxes, what is the value of one share of this stock today?
17. Merlo, Inc. maintains a debt-equity ratio of 0.30 and follows a residual dividend policy. The company has after-tax earnings of \$1,800 for the year and needs \$1,500 for new investments. What is the total amount Merlo will pay out in dividends this year?

CHAPTER 21

18. How many euros can you get for \$2,500 given the following exchange rates?

Country: Euro
 C\$ Equivalent: 1.2927
 Currency per C\$: 0.7736

19. Currently, C\$1 will buy US\$0.87 while C\$1.45 will buy €1. What is the exchange rate between the U.S. dollar and the euro?

Use the following to answer question 20:

<u>Country</u>	<u>U.S. \$ Equivalent</u>	<u>Currency per U.S. \$</u>
Canada	?	1.3500
U.K.	1.8305	?

20. Assume that you can buy 245 Canadian dollars with 100 British pounds. How much profit can you earn on a triangle arbitrage given the following rates if you start out with 100 U.S. dollars?

21. The camera you want to buy costs \$318 in Canada. If absolute purchasing power parity exists, the identical camera will cost _____ in the U.S. if the exchange rate is US\$1 = C\$1.0610.
22. The spot rate for the Japanese yen currently is ¥113 per \$1. The one-year forward rate is ¥111 per \$1. A risk-free asset in Japan is currently earning 4 percent. If interest rate parity holds, approximately what rate can you earn on a one-year risk-free Canadian security?

CHAPTER 22

23. Saturn, Inc. is trying to decide whether to lease or buy some new equipment. The equipment costs \$54,000, has a 3-year life and is worthless after the 3 years. The equipment belongs in a 30 percent CCA class. The pre-tax cost of borrowed funds is 9 percent and the tax rate is 35 percent. The equipment can be leased for \$21,700 a year. What is the net advantage to leasing?
24. Big Top, Inc. is contemplating the acquisition of some new tents. The purchase price is \$144,000. The tents have a 3-year life after which time they are worthless. The tents belong in a 20 percent CCA class. The tents can be leased for \$53,700 a year. The firm can borrow money at 9 percent and has a 33 percent tax rate. The firm does not expect to pay any taxes for the next 6 years because of their accumulated net operating losses. What is the net advantage to leasing?
25. Your firm is considering either leasing or buying some new equipment. The lessor will charge \$22,200 a year should you decide to lease. The purchase price is \$62,000. The equipment has a 3-year life after which time it will be worthless. The equipment belongs in a 45 percent CCA class. Your firm can borrow money at 10 percent and faces a tax rate of 32 percent. Your firm has sufficient tax loss carryovers to offset any potential taxable income the firm might have over the next five years. What is the net advantage to leasing?
26. Your firm is considering either leasing or buying some new equipment. The lessor will charge \$16,900 a year should you decide to lease. The purchase price is \$55,000. The equipment has a 3-year life after which time it is expected to have a resale value of \$10,300. The equipment belongs in a 25 percent CCA class. Your firm can borrow money at 10 percent and faces a tax rate of 31 percent. Your firm has sufficient tax loss carryovers to offset any potential taxable income the firm might have over the next five years. What is the net advantage to leasing?

27. Your firm is considering either leasing or buying some new equipment. The lease payments will be \$14,600 a year. The purchase price is \$58,000. The equipment has a 5-year life after which time it will be worthless. The equipment belongs in a 30 percent CCA class. Your firm borrows money at 8 percent and has a 33 percent tax rate. What is the net advantage to leasing?
28. Your firm is considering either leasing or buying some new equipment. The lease payments will be \$17,900 a year. The purchase price is \$47,000. The equipment has a 3-year life after which time it is expected to have a resale value of \$5,100. The equipment belongs in a 20 percent CCA class. Your firm borrows money at 10 percent and has a 33 percent tax rate. What is the net advantage to leasing?
29. Your firm is considering either leasing or buying some new equipment. The lease payments will be \$6,890 a year. The purchase price is \$39,000. The equipment has a 7-year life after which time it is expected to have a resale value of \$2,900. The equipment belongs in a 45 percent CCA class. Your firm borrows money at 10 percent and has a 35 percent tax rate. What is the incremental cash flow for year 1 if the company decides to lease the equipment rather than purchase it?
30. Toytown Industries is contemplating the acquisition of some new equipment. The purchase price is \$37,000. The equipment has a 8-year life. The company expects to sell the equipment at the end of year 8 for \$3,400. The equipment belongs in a 35 percent CCA class. The equipment can be leased for \$5,750 a year. The firm can borrow money at 9 percent and has a 34 percent tax rate. What is the incremental annual cash flow for year 4 if the company decides to lease the equipment rather than purchase it?
31. Toytown Industries is contemplating the acquisition of some new equipment. The purchase price is \$30,000. The equipment has a 6-year life. The company expects to sell the equipment at the end of year 6 for \$4,000. The equipment belongs in a 40 percent CCA class. The equipment can be leased for \$5,480 a year. The firm can borrow money at 8 percent and has a 35 percent tax rate. What is the depreciation tax shield for year 3?

Answer Key

1. \$1,910,000
2. \$27,638
3. \$127,400
4. \$5,760
5. \$21,997
6. \$8,352.52
7. \$192,767
8. \$356,520
9. 1,300 units
10. 1.77
11. \$40,824.81
12. 1,100 shares
13. \$9,406.29
14. 10.46 percent
15. 10.30 percent
16. \$2.09
17. \$646
18. €1,935
19. US\$0.87 = €0.6897
20. \$.86
21. \$299.60
22. 5.87 percent
23. \$-1,398
24. \$-4,164
25. \$1,271
26. \$1,031
27. \$-2,006
28. \$-1,181
29. \$7,550
30. \$5,330
31. \$5,760