

BASIC CREDIT ANALYSIS

2010

Home Study Problem

"Treetops"

Basic Credit Analysis
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Treetops

The date was August 15, 2010. Driving through the pine forests on his way to the coast, Neil Adams, vice president and loan officer at Quantum National Bank in Dolphin Bay, Georgia, reviewed the credit requests from his clients, Sonny and Brenda Casey. They were to be the principal owners of a combination retail sporting goods store and restaurant called Treetops.

The location was ideal from the viewpoint of the Caseys, who were leaders in wildlife preservation in the Southeast United States. They had arranged with Safari-South, a wild animal park and game preserve that skirted the coastline for several miles, to place their latest store and restaurant on high ground overlooking the most scenic portion of the preserve. Their customers would be able to view the wild animals and exceptional scenery along with shopping and dining at Treetops.

On his arrival at Safari-South, Neil conferred with Sonny and Brenda while reviewing the past financial history of their company as well as their future plans for the expansion through the Treetops facility. Although they were experienced retailers, the new restaurant venture was a slight departure from their usual business plan. Neil agreed that the location selected for the combined store and restaurant was ideal for attracting customers from several nearby towns as well as the seasonal influx of tourists during the summer and fall months.

Because of the planning and development related to the new enterprise, the Caseys were incorporating the name “Treetops” in all of their current business locations and manufactured products. Neil Adams thought that if Treetops progressed as planned that Quantum Bank would benefit from this addition in terms of continuing growth in deposits and loans. On the other hand, he realized there were certain risks involved that he wanted to have time to consider.

As the banker and his clients looked over the area in which Treetops would be placed, the Caseys outlined their credit requests. The construction would be financed by the builder over the final months of 2010, and a long-term loan from Quantum Bank would provide permanent funding for the establishment. The total cost of the building – including equipment and furnishings – was expected to be

\$765,000, of which the bank was requested to finance 75 percent, or \$573,750. The previous long-term debt of the company would be \$1,400, 183, including the current portion of long-term debt, \$50,051 at the end of 2010. The bank's term loan would replace the previous long-term debt and repay the construction loan on January 1, 2011.

The Caseys requested Quantum Bank to extend credit to cover the existing term debt and the new long-term funds. As shown on Exhibit 1, this would result in a total loan of \$1,973,933, requested to be a term of 15 years with the first payment due at the end of January, 2011. Interest and principal would be paid monthly on the declining balance. Shown on Exhibit 1 are the first two years of interest and principal payments, the total principal to be paid in 2011 and 2012, and total interest paid in 2011.

The clients produced a projected cash budget covering the final months of 2010 and the full year 2011. Adams noted that the current short-term line-of-credit that he had approved at the beginning of the year was expected to be repaid before the end of 2010, with the Casey's company closing out the year with a holding of short-term securities equal to \$135,326.

The securities are in addition to the target cash balance that the bank guarantees for the Casey's company at the end of each month under their regular cash management plan. Cash balances in excess of \$50,000 are invested in short-term securities or in repaying all or part of the short-term credit, and any deficit is covered automatically by increasing borrowing on the line-of-credit or sale of securities.

Exhibit 2 shows the Casey's predicted changes in fixed asset investment and depreciation expense during the forecast year, 2011. Gross fixed assets are scheduled to increase by 21.5 percent, while accumulated depreciation will grow by 16.5 percent. Adams sees that the depreciation expense for 2011 is expected to be \$323,871, and that this non-cash expense exceeds the amount of principal due to be paid during the year.

Over past years, Quantum Bank has provided various long-term and short-term credits to business entities owned by Sonny and Brenda Casey. Their payment record to this date in September, 2010, has been outstanding. For this reason Neil Adams is inclined to accept their judgment on the new enterprise.

The sales growth rate for the newly named Treetops Corporation is projected as 5 percent each year in 2011 and 2012. This moderate growth rate takes account of the slowdown in the national economy during the past two years, but reflects the opinion of economists that the local region will not decline and should soon show signs of positive growth.

Exhibit 3 shows seasonal index numbers for Treetops sales during 2011 and 2012. In computing the sales forecast for each month on the cash budget, the total forecast sales for the year is multiplied by the month's index number and the resulting dollar amount is divided by 12. After the cash budget is complete, the seasonal influence may be seen on two charts at the bottom of the budget – one showing monthly cash flows and the second showing securities and short-term borrowing for each month.

Based on the company's past history, Treetops customers will pay according to the following pattern – 10 percent cash, 45 percent bank credit cards, and 45 percent by Treetops charge accounts. Bank card sales are considered the same as cash sales for the cash budget forecast in cash is received from the sponsoring bank within three days of the purchase. Charge account purchases are collected over a three-month period according to the following predicted schedule.

Collected in one month following sales	60 percent
Collected in two months following sales	25 percent
Collected in three months following sales	13 percent
Non-collectible bad debt, end of 3 months	2 percent

Treetops will pay a 3 percent fee on bank credit card sales to Quantum bank in the same months that the sales occur. The company is also responsible for a predicted 2 percent loss on bank credit card sales at the end of three months following the sales. Bank credit card losses are expenses and also cash outflows three months following the purchase, since Treetops must pay back cash that was collected from the sponsoring bank. Bad debts on Treetops charge accounts are expenses, but are not cash outflows

A bank card terminal fee of \$10 per \$100,000 of projected total sales for the year is paid each month, with the amount each month equal to the total fee divided by 12. Treetops must plan for the maximum number of terminals in case of increased bank card usage.

For 2011 and 2012, the cost of goods sold – which includes the cost of purchasing inventory from suppliers and assembly work before sales by Treetops non-salaried employees – is expected to be 70.50 percent of sales. Purchases each month equal the cost of goods sold for the predicted sales two months ahead of the purchase. Payment to suppliers and employees is made in the month following the purchase.

Expenses forecasted to occur in 2011 include salary expense of \$548,000, advertising expense \$204,300, lease expense \$146,000, and education expense for employee training \$93,000. These expenses will each be divided into twelve equal monthly payments on the cash budget.

Sales commissions are paid each month at the rate of 6 percent of sales. In addition, several expenses are combined under the title of Maintenance & Other (M & O). The total of M & O expense for 2011 is projected to be \$432,000. Treetops managers intend to pay out more than this amount to suppliers who are owed money shown by the Accrued Expenses liability account on the company's balance sheet. In 2011, a total of \$522,300 will be paid out for M & O, divided into twelve equal payments on the cash budget. The difference of \$90,300 will be subtracted from Accrued Expenses at the end of the year 2011.

The M & O account represents a number of accrual accounts used by most companies to account for differences between cash payments or collections and the amounts of these transactions entered on financial statements as expenses or income items.

Treetops is a corporation having 50,000 shares of stock at \$1.00 par value per share. Capital surplus of \$150,000 in the capital structure shows the difference between par value and actual price per share of the 50,000 shares when they were sold. Retained earnings, the cumulative amount of net income less dividend payments, are expected to total \$1,455,554 at the end of December, 2010. For the year 2011 the Caseys expect to pay a cash dividend of \$3.00 per share. The dividend will be divided into four quarterly payments of \$37,500 and will be a cash outflow at the end of March, June, September and December.

Several interest rates are expected to apply during 2011. The annual rate of interest on short-term borrowing will be 12 percent, the rate on long-term debt will be 10 percent, and the rate on short-term securities will be 2.5 percent.

Interest on short-term securities is received in the month following a positive balance of securities. The cash inflow is 1/12 the annual 2.5 percent rate. In the

month following an ending balance of short-term borrowing under the line-of-credit a payment is made to the bank equal to 1/12 the annual 8 percent rate. Monthly interest and principal payments on the long-term debt are shown on Exhibit 1.

For the purpose of cash budgeting, the short-term securities and short-term borrowing accounts are balancing accounts – used at the end of each month to cause the month-end cash balance to equal the \$50,000 target. At the end of each month, only one of the balancing accounts will have a positive balance while the other will have a balance of zero.

The income tax for Treetops is expected to be \$84,236 for 2011. The predicted tax will be paid in four equal payments at the end of March, June, September and December 2011. In creating the cash budget for the forecast year, these tax payments may be entered on the budget immediately.

Neil Adams looked over the credit requests and financial forecasts provided by Sonny and Brenda Casey. He planned to complete the cash budget, income statement, balance sheet, ratio analysis and cash flow statement for the 2011 forecast year before making his recommendations to the Quantum Bank loan committee. The analysis would assist in the decisions involved in loan approval and in questions that the committee might have for the Caseys and other Treetops managers.

Exhibits 4 and 5 are Treetops balance sheets and income statements for the years 2006 - 2010. Exhibit 6 lists financial ratios for the five recent years. Exhibit 7 shows the final four months of 2010 as projected by the Caseys, and includes the forecast for January 2011. Exhibit 8 is the cash flow statement for 2010.

“Treetops”

LOAN PRESENTATION

After completing the analysis and other calculations, prepare written presentations of “Treetops” two loan requests. The attached “Loan Memorandum” format should be duplicated and used for each request. Your presentation should be completed as if you were presenting it to a bank loan committee. To access “Treetops” spreadsheets online, go to the website www.gsblsu.org, click on “Students”, then “Bank Study Project”, and finally choose the “Basic Credit Analysis” and “Treetops”.

With information given to you in the case and information that you develop in the ratio, budget, and pro forma analysis, justify your recommendations; whether positive or negative, in the “Remarks” section of the memorandum (attach additional sheets).

In the “Remarks” section, make sure to discuss the following:

- A) Background of company
- B) Past and present financial condition of company
- C) Pro formas & Ratio Analysis
 - 1. Pro forma profitability
 - 2. Pro forma liquidity
 - 3. Efficient use of assets
 - 4. Pro forma leverage
- D) Nature of Request
 - 1. Purpose of each loan request
 - 2. Determination of loan structure
 - a) Type of loan
 - b) Maturity
 - c) Principal & Interest Payments Due

3. Determination of maximum amount of credit needed. How?
4. Determination of when borrowings are needed. How?
5. Determination of primary source of repayment. How?
6. Determination of secondary source of repayment. How?

E) Collateral

1. Description of collateral
2. Value of collateral. How valued?

F) Summary of Recommendations

1. In this section, give positive and negative comments concerning the request and make your recommendation.

SUGGESTION: When preparing your memorandums, you may want to identify the presentations as “Loan #1” and “Loan #2”; thus using only one “remark” section tying both presentations together by their identifying numbers.

Your completed Home Study Problem should contain the above-mentioned Loan Presentation, along with the Budget, Pro Forma and Ratio Analysis attached. If you have difficulty or questions involving the “Treetops” case, you may call or email numbers/addresses listed below for assistance or advice.

HELP LINES:

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Or

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Exhibit 1

Treetops

Repayment schedule for new term loan

Total principal to be repaid = P	\$ 1,973,933
Term, number of years	15
Interest rate, annual = R	10.00%
Number of months to repay = N	180
Interest rate per month = $(1 + R)^{(1/12)} - 1 = r$	0.00797414
Annuity factor = $PVIFA = (1 - (1/(1 + r)^N))/r$	95.38431852
Payment per month = $P / PVIFA$	\$ 20,694.52

	Payment	Interest	Principal	Balance
				1,973,932.86
Jan	20,694.52	15,740.42	4,954.10	1,968,978.76
Feb	20,694.52	15,700.91	4,993.61	1,963,985.15
Mar	20,694.52	15,661.09	5,033.43	1,958,951.72
Apr	20,694.52	15,620.96	5,073.57	1,953,878.16
May	20,694.52	15,580.50	5,114.02	1,948,764.13
Jun	20,694.52	15,539.72	5,154.80	1,943,609.33
Jul	20,694.52	15,498.61	5,195.91	1,938,413.42
Aug	20,694.52	15,457.18	5,237.34	1,933,176.08
Sep	20,694.52	15,415.42	5,279.10	1,927,896.98
Oct	20,694.52	15,373.32	5,321.20	1,922,575.78
Nov	20,694.52	15,330.89	5,363.63	1,917,212.14
Dec	20,694.52	15,288.12	5,406.40	1,911,805.74
Jan	20,694.52	15,245.01	5,449.51	1,906,356.23
Feb	20,694.52	15,201.55	5,492.97	1,900,863.26
Mar	20,694.52	15,157.75	5,536.77	1,895,326.49
Apr	20,694.52	15,113.60	5,580.92	1,889,745.56
May	20,694.52	15,069.10	5,625.43	1,884,120.14
Jun	20,694.52	15,024.24	5,670.28	1,878,449.86
Jul	20,694.52	14,979.02	5,715.50	1,872,734.36
Aug	20,694.52	14,933.45	5,761.08	1,866,973.28
Sep	20,694.52	14,887.51	5,807.01	1,861,166.27
Oct	20,694.52	14,841.20	5,853.32	1,855,312.95
Nov	20,694.52	14,794.53	5,900.00	1,849,412.95
Dec	20,694.52	14,747.48	5,947.04	1,843,465.91

Principal paid in	2011	62,127.12
Principal paid in	2012	68,339.83
Term loan interest in	2011	186,207.14

Exhibit 2

Treetops

Fixed assets and depreciation expense

Gross fixed assets	Dec 31, 2010	3,553,286.00
Asset purchased	Jan 1, 2011	765,000.00

Gross fixed assets	Dec 31, 2011	4,318,286.00
Accumulated depreciation		
	Dec 31, 2010	1,962,386.45
Depreciation expense as % of gross fixed assets		7.50%
Depreciation expense for forecast year 2011		323,871.45
Accumulated depreciator	Dec 31, 2011	2,286,257.90
Net fixed assets	Dec 31, 2011	2,032,028.10

Exhibit 3

Treetops

Seasonal index numbers

Jan	0.83	Jul	1.21
Feb	0.46	Aug	1.15
Mar	0.50	Sep	1.24
Apr	0.60	Oct	1.25
May	1.12	Nov	1.15
Jun	1.24	Dec	1.25

Exhibit 4

Treetops

Balance Sheet

Assets	Dec. 31 2010	Dec. 31 2009	Dec. 31 2008	Dec. 31 2007	Dec. 31 2006
Cash	50,000	50,000	50,000	50,000	50,000
Short-term securities	135,326	161,576	160,079	199,597	269,701
Accounts receivable	499,988	432,324	520,610	482,530	448,711
Inventory	1,372,778	1,260,171	1,204,603	1,150,362	1,118,408
Total current assets	2,058,092	1,904,071	1,935,291	1,882,489	1,886,819
Gross fixed assets	3,553,286	2,953,286	2,653,286	2,352,786	2,102,786
Accumulated depreciation	1,962,386	1,695,890	1,474,393	1,275,397	1,098,938
Net fixed assets	1,590,900	1,257,396	1,178,893	1,077,389	1,003,848
Total assets	3,648,992	3,161,467	3,114,184	2,959,878	2,890,667
<hr/>					
Liabilities and Equity Capital	Dec. 31 2010	Dec. 31 2009	Dec. 31 2008	Dec. 31 2007	Dec. 31 2006
Notes payable, short-term loan	0	0	0	0	0
Current portion of long-term debt	50,051	35,592	36,749	29,349	25,835
Accounts payable	401,519	445,467	419,599	394,349	379,473
Accrued expenses	191,736	95,846	125,446	237,396	349,346
Total current liabilities	643,306	576,905	581,793	661,094	754,654
Long-term debt	1,350,132	960,092	991,292	791,699	696,894
Equity capital					
Common stock, total par value	50,000	50,000	50,000	50,000	50,000
Capital surplus	150,000	150,000	150,000	150,000	150,000
Retained earnings	1,455,554	1,424,470	1,341,099	1,307,086	1,239,118
Total equity capital	1,655,554	1,624,470	1,541,099	1,507,086	1,439,118
Total liabilities and equity capital	3,648,992	3,161,467	3,114,184	2,959,878	2,890,667

Exhibit 5

Treetops

Income Statement	2010	2009	2008	2007	2006
Net sales	10,810,836	10,296,034	9,622,462	9,056,435	8,523,703
Cost of goods sold	7,767,377	7,459,567	6,964,193	6,455,185	6,152,111
Gross profit	3,043,459	2,836,467	2,658,269	2,601,250	2,371,592
Administrative Expenses					
Salary expense	502,750	470,240	467,430	465,780	420,500
Advertising expense	151,000	135,800	133,960	135,600	128,450
Sales commissions	648,650	617,762	577,348	543,386	511,422
Lease expense	146,000	140,250	136,000	136,000	134,000
Depreciation expense	266,496	221,496	198,996	176,459	157,709
Maintenance & other expense	446,750	450,400	450,400	450,400	355,890
Education - employee training	82,500	75,900	70,000	65,300	35,000
Bad debt, charge accounts	97,900	131,820	123,387	116,129	109,298
Bad debt, bank credit cards	81,204	60,840	56,948	53,598	50,445
Bank card terminal fees	12,973	12,355	11,547	10,868	10,228
Bank card fee on sales	145,946	92,664	86,602	81,508	76,713
Total administrative expense	2,582,170	2,409,528	2,312,619	2,235,028	1,989,656
EBIT	461,289	426,939	345,651	366,222	381,936
Interest expense	154,504	146,023	132,912	108,056	81,104
Interest income	5,491	667	2,145	2,600	3,200
Profit before-tax	312,276	281,583	214,883	260,766	304,033
Income tax tax rate 26 %	81,192	73,212	55,870	67,799	79,048
Net income	231,084	208,371	159,013	192,967	224,985
Dividends	200,000	125,000	125,000	125,000	120,000
Net to retained earnings	31,084	83,371	34,013	67,967	104,985
Dividend per share	\$4.00	\$2.50	\$2.50	\$2.50	\$2.40
Earnings per share	\$4.62	\$4.17	\$3.18	\$3.86	\$4.50

Exhibit 6

Treetops

Ratio Analysis	Industry Average	2010	2009	2008	2007	2006
Current ratio	1.90	3.20	3.30	3.33	2.85	2.50
Quick ratio	0.92	1.07	1.12	1.26	1.11	1.02
Sales / accounts receivable	12.45	21.62	23.82	18.48	18.77	19.00
COGS percent of sales	65.00%	71.85%	72.45%	72.37%	71.28%	72.18%
COGS / inventory	5.28	5.66	5.92	5.78	5.61	5.50
COGS / accounts payable	8.00	19.34	16.75	16.60	16.37	16.21
Sales / net working capital	8.86	7.64	7.76	7.11	7.41	7.53
EBIT / interest expense	6.92	2.99	2.92	2.60	3.39	4.71
Fixed assets / net worth	1.46	0.96	0.77	0.76	0.71	0.70
Total debt / net worth	2.23	1.20	0.95	1.02	0.96	1.01
Rate of return on total assets	3.72%	6.33%	6.59%	5.11%	6.52%	7.78%
Rate of return on equity capital	12.00%	13.96%	12.83%	10.32%	12.80%	15.63%
Sales / net fixed assets	5.08	6.80	8.19	8.16	8.41	8.49
Sales / total assets	2.30	2.96	3.26	3.09	3.06	2.95
Depreciation expense / sales	1.30%	2.47%	2.15%	2.07%	1.95%	1.85%
Salaries / sales	5.30%	4.65%	4.57%	4.86%	5.14%	4.93%
Net profit as percent of sales	1.62%	2.14%	2.02%	1.65%	2.13%	2.64%

Exhibit 7

Treetops

	2010	2010	2010	2010	2011
Cash Budget	Sep	Oct	Nov	Dec	Jan
Sales	1,198,201	1,171,174	1,081,084	1,126,129	785,137
Cash sales	119,820	117,117	108,108	112,613	78,514
Bank credit card sales	539,190	527,028	486,488	506,758	353,312
Charge sales	539,190	527,028	486,488	506,758	353,312
Outstanding receivables	515,799	532,218	497,758	499,988	348,569
Collected in one month	279,730	323,514	316,217	291,893	304,055
Collected in two months	117,568	116,554	134,798	131,757	121,622
Collected in three months	61,662	61,135	60,608	70,095	68,514
Uncollected store credit	9,487	9,405	9,324	10,784	10,541
Interest on securities	0	0	0	0	282
Funds from long-term loan					573,750
Total cash inflows	1,117,971	1,145,349	1,106,219	1,113,115	1,500,048
Ending inventory	2,120,967	2,088,309	1,873,748	1,372,778	1,137,000
Inventory purchases	783,786	816,443	569,224	315,474	333,447
Accounts payable	869,831	902,488	655,269	401,519	419,492
Payment for inventory	849,101	783,786	816,443	569,224	315,474
Sales commissions	71,892	70,270	64,865	67,568	47,108
Principal on long-term debt	3,866	3,897	3,928	3,960	4,954
Salary expense	41,896	41,896	41,896	41,896	45,667
Maintenance & other	29,238	29,238	29,238	29,238	43,525
Lease payments	12,167	12,167	12,167	12,167	12,167
Advertising expense	12,583	12,583	12,583	12,583	17,025
Research & development	6,875	6,875	6,875	6,875	7,750
Purchase of fixed assets					765,000
Bank card terminal fee	1,081	1,081	1,081	1,081	1,135
Bank card fee on sales	16,176	15,811	14,595	15,203	10,599
Bad debt, bank credit cards	9,487	9,405	9,324	10,784	10,541
Tax payments	20,298			20,298	
Interest on term loans	11,290	11,259	11,228	11,197	15,740
Interest on short-term credit line	3,268	3,480	2,044	1,245	0
Dividend payments	50,000			50,000	
Total cash outflows	1,139,218	1,001,749	1,026,268	853,318	1,296,685
Net cash flow	(21,247)	143,600	79,951	259,797	203,363
Plus beginning cash balance	50,000	50,000	50,000	50,000	50,000
Unadjusted cash balance	28,753	193,600	129,951	309,797	253,363
Less minimum cash balance	50,000	50,000	50,000	50,000	50,000
Variance from minimum balance	(21,247)	143,600	79,951	259,797	203,363
Short-term bank loan	348,022	204,422	124,471	0	0
Short-term securities	0	0	0	135,326	338,689

Exhibit 8

Treetops

Statement of Cash Flows	2010
Operating activities	-----
Net after-tax profit	231,084
Adjustments to reconcile profit with non-cash items	
Depreciation expense	266,496
Changes in assets and liabilities	
Accounts receivable	67,664
Inventory	112,607
Accounts payable	(43,948)
Accrued expenses	95,890

Net cash provided (used) by operating activities	232,213
Investing activities	
Capital expenditures on new fixed asset	(600,000)

Net cash provided (used) by investing activities	(600,000)
Financing activities	
Issue of common stock	0
Change in short-term debt, line-of-credit	0
Proceeds from new term loan	450,000
Principal payments on long-term debt	(45,501)
Dividends paid	(200,000)

Net cash provided (used) by financing activities	204,499
Net increase (decrease) in cash and short-term securities	(26,250)
	=====
Cash and short-term securities, beginning of year	211,576
Cash and short-term securities, end end of year	185,326
Change in cash and securities	(26,250)

DATE: _____
OFFICER: _____

LOAN MEMORANDUM

CUSTOMER #: _____
NOTE #: _____

Borrower: _____
Address: _____
Business: _____
Principal(s): _____

Entity: Individual Partnership Corporation
 Other _____

Financial Statements (000's)

Annual Date: _____ TA _____ NW _____ INC _____
Interim Date: _____ TA _____ NW _____ INC _____

Debt Recap

Commercial \$ _____
Installment _____
Letter of Credit _____
Subtotal _____
Approval Amount _____
Total Direct Debt _____
Indirect-Related _____
Total Debt _____
Participations Sold _____
Net Outstanding \$ _____

Request: Approval Ratification Review
 New Loan Renewal Renewal Combination

Amount Type _____

Renewal: Original Amount & Date \$ _____ / _____

Rate/Payable: _____

Fee: _____ Maturity: _____

Deposit Recap

DDA Accounts _____
Interest Bearing _____
DDA _____
Time Deposits _____
TOTAL \$ _____

Purpose:

**Liquidation Agreement
and Source of Funds:**
(Primary & Secondary)

Collateral:
(Description, Value, Source)

END, GTR, COS

Remarks:

Recommendation ____ Approve ____ Decline ____ Report	____ Committee Date _____	Prepared by: _____ Submitted by: _____
Authority <input type="checkbox"/> Individual <input type="checkbox"/> Joint <input type="checkbox"/> Loan Committee	Initials: _____ Conditions: _____	Exceptions to Loan Policy: _____ Documents Waived: _____
Grade: _____		