

8.a. The solution to this problem is based on the ratios calculated below. The “implied ratings” are based on the data provided in Exhibit 18-4.

Exhibit 18-4 Ratios	2000		2001	
	Calculations	Implied Rating	Calculations	Implied Rating
Interest coverage	$\$322/\$18 = 17.89$	AAA	$\$19/\$21 = 0.90$	B
Free CFO/total debt	$\$(50)/\$537=(9.3)\%$	CCC	$\$172/\$594 = 29.0\%$	AA
Return on capital	$\$322/\$2,174=14.8\%$	BBB	$\$19/\$2,150 =0.9\%$	CCC
Operating income/sales	$\$322/\$4,049 = 8.0\%$	<CCC	$\$19/\$3,090 = 0.6\%$	<CCC
Total debt to capital	$\$537/\$2,174=24.7\%$	AAA	$\$594/\$2,150=27.6\%$	AA-AAA

Steelcase’s 2000 ratios ranged from AAA to less than CCC. The overall A- rating seems to have been a compromise between these extremes. The decision to revise its outlook may come from the deterioration in the profitability ratios and the resultant decline in the interest coverage (solvency) ratio, despite the improved free CFO to debt ratio.

b. The following information would be helpful:

i. The factors that led to the 2002 sales decline. Temporary factors (e.g. a strike) would suggest that the sales decline is temporary and would argue against a downgrade.

ii. The reason for the decline in EBIT. If was due to a nonoperating item, for example, that amount should be excluded and the ratios recalculated.

iii. Accounting policies on revenue and expense recognition; these would cast light on the company’s quality of earnings. Lower quality earnings would support a downgrade.

iv. Footnote data on retirement plans and off-balance-sheet obligations. Adjusted ratios (interest coverage, free CFO/debt, and total debt to capital) should be a better indicator of the appropriate rating.

c. The decision to reaffirm may have due to two factors.

i. The strong solvency ratios (CFO/total debt and debt/capital) which implied ratings of AA - AAA. Free CFO to debt improved from the 2000 level.

ii. The company’s strong cash flow and free cash flows – both increased

considerably in 2000.

d. The data in Exhibit 18-4 are based on averages taken over the whole economy. Different criteria and or different weightings may be appropriate for certain industries and/or certain companies.

The comparison also ignores differing accounting methods and use of off-balance-sheet financing techniques by different companies.

9.a. *EBIT/interest expense*, the interest coverage ratio, is an indicator of the degree of protection available to creditors with respect to receiving interest payments. The ratio measures the firm’s ability to meet interest payments out of current earnings. The higher the ratio, the less risky the firm.

Long-term debt/total capitalization measures the proportion of a firm’s financing provided by debt. The higher that proportion, the higher the firm’s financial leverage as the higher debt requires higher interest payments. The firm is riskier as the probability of insolvency increases as the firm may find it difficult to meet interest and principal payments.

Debt, ultimately, is repaid by internally generated cash flows. Funds from operations act as a surrogate for CFO and *funds from operations/total debt* measures the extent to which internally generated funds (operating cash flows excluding working capital changes) are available for debt service. The ratio indicates the proportion of debt a firm can pay off from annually generated funds.

A firm’s long-term solvency depends on its ability to generate profits. *Operating income/sales* provides a measure of a firm’s profitability. As that measure excludes the effects of capital structure and tax position, it makes all firms comparable.

b. *EBIT/interest expense* rose from 3.46 to 5.65 from 1999 to 2003. Exhibit 18-4 shows median ratios of 6.1 for an A rating and 3.7 for a BBB rating. Thus, based on this ratio, Alpine would now receive an A rating.

Exhibit 18-4 shows a 33.9% *long-term debt/capital* ratio for the A rating and 42.5% for the BBB rating. Alpine’s ratio rose from 28% in 1999 to 44% in 2003, implying a BBB rating.

Funds from operations/total debt declined considerably from 1999. However, the current level of more than 50% approximate the 55.4 ratio required for an AA rating.

Operating income/sales in the 12-14% range falls between the BB and B ratings that show ratios of 15.9% and 11.9% respectively.

The four ratios together (A, BBB, AA, and BB/B) suggest an appropriate rating of slightly better than BBB. While two ratios are higher, operating income/sales is very low. As profitability is the ultimate determinant of financing health, that ratio

should probably received greater weight.

C Alpine is paying 100 basis points more than US Treasury Notes, equivalent to what a BBB-rated firm is paying. As Alpine's ratings are slightly better than BBB, the Alpine bond should trade at a smaller spread. O'Flaherty should recommend the Alpine Chemical bond for purchase. Before doing so, however, O'Flaherty should examine the reasons for the low ratio of operating income to sales and ensure that the low ratio does not indicate operating weakness that is likely to impair Alpine's ability to pay future bond interest and principal.

10.a.

Interest Coverage = $\text{EBIT}/\text{interest} = \$4,450/\$942 = \mathbf{4.72}$
Leverage = $\text{Long-term debt}/\text{equity} = \$10,000/\$33,460 = \mathbf{0.30}$
Current ratio = $\text{Current assets}/\text{current liabilities} = \$4,735/\$4,500 = \mathbf{1.05}$

b. The ratios imply an A rating. Interest coverage and the current ratio are within the A rating ranges whereas Leverage is at the border of A and AA. The 55 bps premium is slightly higher than the 50 bps implied by the A rating.

c. The effect of the three items on the ratio components is presented below.

	Reported	Adjusted for			Adjusted
<i>\$thousands</i>		<i>Affiliate guarantee</i>	<i>A/R sale</i>	<i>Lease</i>	
Current assets	\$4,735		\$500		\$5,235
Current liabilities	4,500		500	\$ 386 ¹	5,386
Long-term debt	10,000	\$995		5,758 ²	16,753
Interest expense	942		40 ³	614 ¹	1,596
EBIT	4,450		40 ³	0 ⁴	4,490

1 Interest expense = 10% x \$6,144 = \$614. The current portion of the capitalized lease is \$386, equal to the \$1,000 payment less the portion that is the interest expense.

2 Effect on long-term debt equals total debt less current portion = \$6,144

- \$386.

³ Assumes that Montrose recognized \$40 million discount as loss on sale of receivables.

⁴ Because the lease is new, fiscal 2001 expense does not include the lease payment. Therefore EBIT is unchanged.

The adjusted ratios are:

Interest coverage = $\text{EBIT}/\text{interest} = \$4,490/\$1,596 = 2.81$
Leverage = $\text{Long-term debt}/\text{equity} = \$16,753/\$33,460 = 0.50$
Current ratio = $\text{Current assets}/\text{current liabilities} = \$5,235/\$5,386 = 0.97$

d. The adjusted ratios fall into the following ratings categories:

Interest coverage: BB
Long term debt/equity: BBB/BB
Current ratio: BBB

The overall rating should be between BB and BBB.

Smith is not being compensated for its credit risk as the adjusted ratios imply a rating of BBB/BB and a risk premium of 100 - 125 basis points.