

Business Cash Flow Essentials

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Consultant / Trainer





Lesson 3

Part A

Ratio & Financial Analysis

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Ratio & Financial Analysis



Business Cash Flow Essentials

1. Test a company by calculating key liquidity, safety, leverage, and efficiency ratios.
2. Analyze the results and learn to interpret what the ratios financial impact means in your business.
3. Diagnose the causes for any financial or management problems that results are pointing to.
4. Build solutions to improve your company's health based on what you find.
5. Build a financial dashboard you can use in your company with CashFlowTool.

Spectrum Manufacturing



60-year old Paint Manufacturing Company

Need a Line of Credit

\$ ~~250~~ K

Initial Financial Indicators (IFI)



Balance Sheet

SPECTRUM MANUFACTURING COMPANY					
Balance Sheet (000's)					
	<u>Year x1</u>	<u>Year x2</u>	<u>Year x3</u>	<u>Year x4</u>	<u>Year x5</u>
1 ASSETS					
2 Cash	\$102	\$76	\$69	\$33	\$85
3 Accounts Receivable	669	688	661	756	654
4 Inventory	1,116	1,109	1,250	1,059	1,217
5 Prepaid Expenses	105	97	99	88	93
6 Total Current Assets	\$1,992	\$1,970	\$2,079	\$1,936	\$2,049
7 Land & Building	1,085	1,540	1,560	1,600	1,600
8 Vehicles	104	129	138	165	165
9 Equipment	576	866	883	900	920
10 Furniture & Fixtures	89	118	129	176	186
11 Gross Fixed Assets	\$1,854	\$2,653	\$2,710	\$2,841	\$2,871
12 Less Accumulated Dep.	(682)	(828)	(978)	(1,154)	(1,337)
13 Net Fixed Assets	\$1,172	\$1,825	\$1,732	\$1,687	\$1,534
14 TOTAL ASSETS	\$3,164	\$3,795	\$3,811	\$3,623	\$3,583
15 LIABILITIES & EQUITY					
16 Notes Payable - Bank	\$211	\$656	\$599	\$619	\$589
17 Accounts Payable	558	630	691	764	750
18 Accrued Expenses	203	188	191	170	180
19 Total Current Liabilities	\$972	\$1,474	\$1,481	\$1,553	\$1,519
20 Long-Term Debt	814	903	876	614	599
21 TOTAL LIABILITIES	\$1,786	\$2,377	\$2,357	\$2,167	\$2,118
22 Common Stock	250	250	250	250	250
23 Retained Earnings	1,128	1,168	1,204	1,206	1,215
24 EQUITY	\$1,378	\$1,418	\$1,454	\$1,456	\$1,465
25 TOTAL LIABILITIES & EQUITY	\$3,164	\$3,795	\$3,811	\$3,623	\$3,583

Income Statement

SPECTRUM MANUFACTURING COMPANY					
Income Statement (000's)					
	<u>Year x1</u>	<u>Year x2</u>	<u>Year x3</u>	<u>Year x4</u>	<u>Year x5</u>
1 SALES	\$8,100	\$7,500	\$7,600	\$6,800	\$7,100
2 Cost of Goods Sold	(5,468)	(5,070)	(5,252)	(4,658)	(4,920)
3 GROSS PROFIT	\$2,632	\$2,430	\$2,348	\$2,142	\$2,180
4 OPERATING EXPENSES					
5 Owners Salary	\$90	\$70	\$50	\$50	\$50
6 Other Salaries	778	673	620	515	508
7 Commissions	405	375	380	340	350
8 Salary Related Expense	316	298	262	226	220
9 Advertising	83	75	72	70	67
10 Bad Debts	22	16	19	11	18
11 Business Taxes & Licenses	80	76	77	69	73
12 Depreciation	105	146	150	176	183
13 Insurance	95	94	96	102	105
14 Legal & Accounting	21	23	22	26	24
15 Maintenance & Repair	59	51	60	63	65
16 Office Expense	25	23	24	22	23
17 Telephone & Utilities	129	135	143	149	158
18 Travel & Entertainment	54	40	41	49	52
19 Vehicle Expense	47	49	52	61	64
20 Other Admin Expenses	81	77	83	79	80
21 TOTAL OPERATING EXPENSES	\$2,390	\$2,221	\$2,151	\$2,008	\$2,040
22 OPERATING PROFIT	\$242	\$209	\$197	\$134	\$140
23 Interest Expense	(116)	(162)	(155)	(131)	(129)
24 PROFIT BEFORE TAX	\$126	\$47	\$42	\$3	\$11
25 Income Tax	(32)	(7)	(6)	(1)	(2)
26 PROFIT AFTER TAX	\$94	\$40	\$36	\$2	\$9

Initial Financial Indicators (IFI)



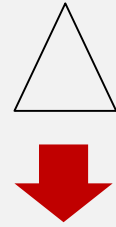
1 Trends

	Year x1	Year x2	Year x3	Year x4	Year x5
↓ SALES	\$8,100	\$7,500	\$7,600	\$6,800	\$7,100
↓ GROSS PROFIT	\$2,632	\$2,430	\$2,348	\$2,142	\$2,180
↓ OPERATING EXPENSE	\$2,390	\$2,221	\$2,151	\$2,008	\$2,040
↓ NET PROFIT	\$126	\$47	\$42	\$3	\$11

Initial Financial Indicators (IFI)



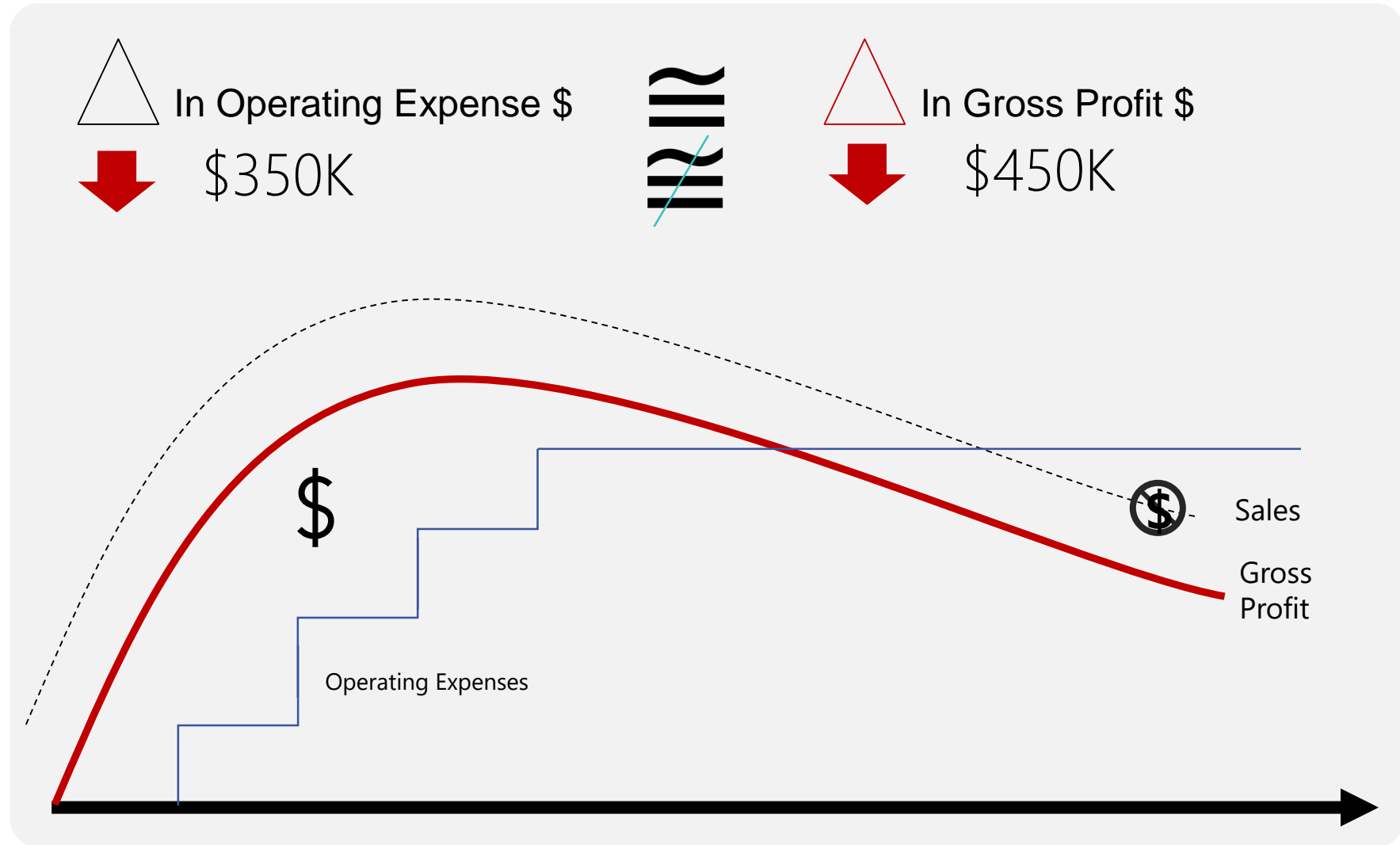
2 Expense Control



In Operating Expense \$
\$350K



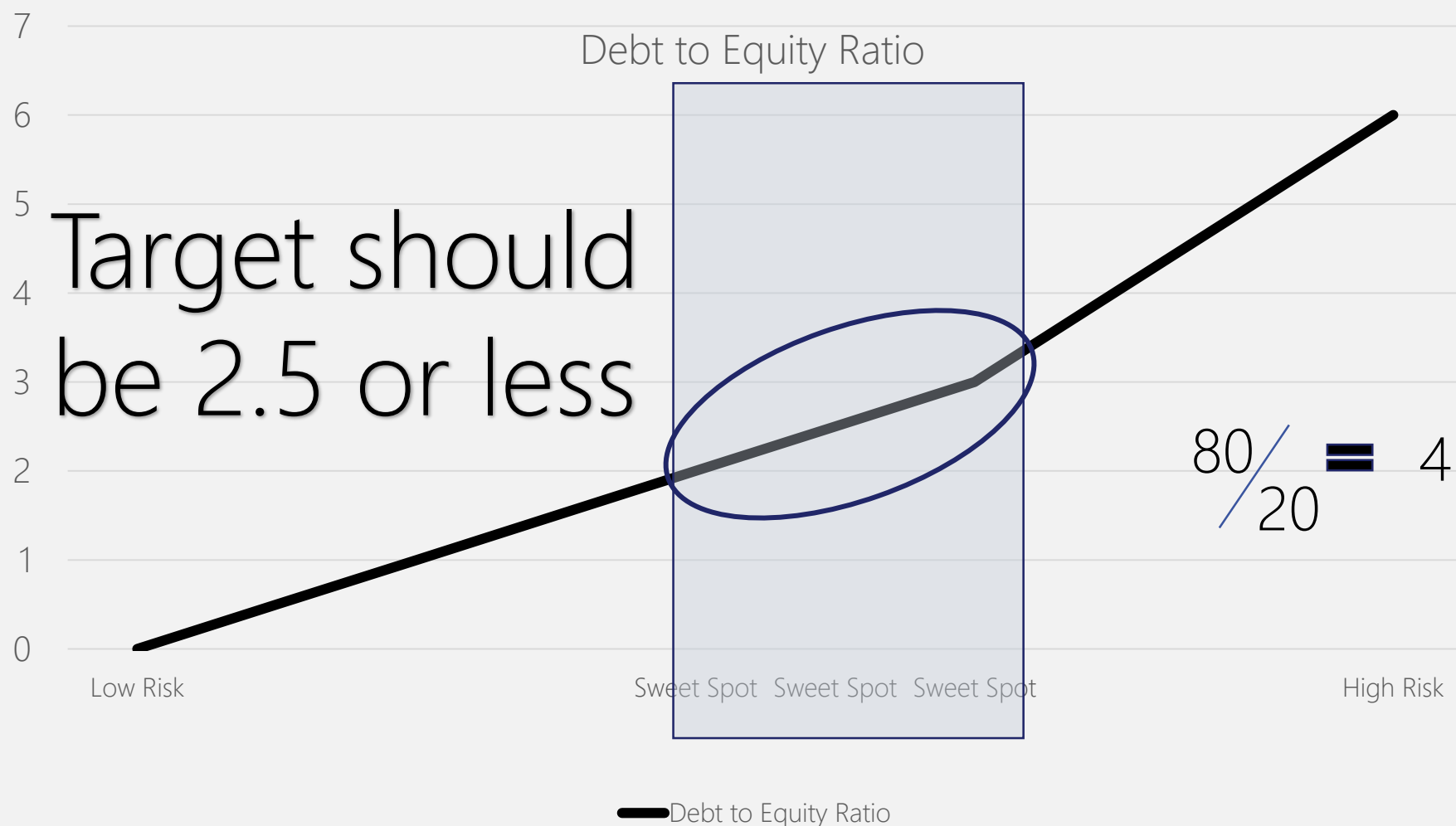
In Gross Profit \$
\$450K



Initial Financial Indicators (IFI)



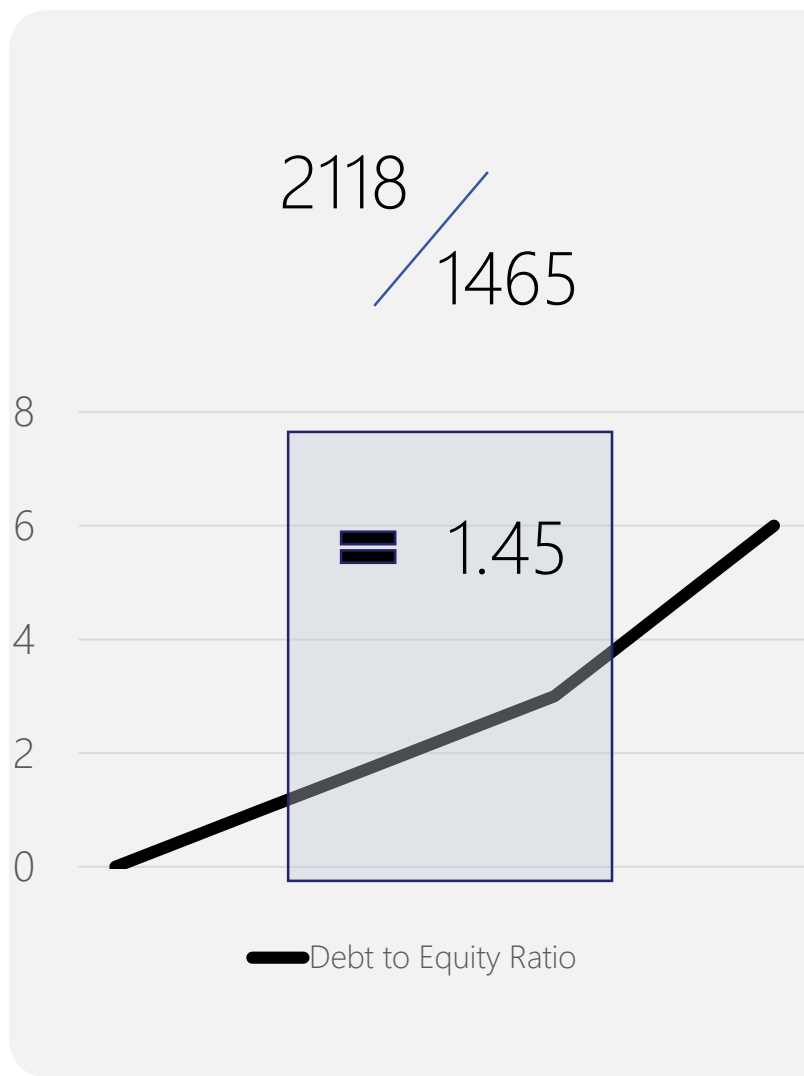
3 Debt to Equity



Initial Financial Indicators (IFI)



3 Debt to Equity



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Initial Financial Indicators (IFI)



4 EBITDA

Earnings (Net Profit After Tax)	\$9
Before	+
Interest Paid	\$129
Taxes paid	\$2
Depreciation Paid	\$183
Amortization Paid	\$0
	<hr/>
	\$323

$$\begin{array}{r} \text{EBITDA} = \$323 \\ \text{LTD Capacity} \quad \times 3 \\ \hline \$969 \\ \text{LTD on B/S} \quad - \$599 \\ \hline \text{New LTD Capacity} \quad \$370 \end{array}$$

Ratio Analysis Worksheet



SOLVENCY RATIOS	Formula	Calculations	Company	Industry (Target)
1. Current	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	$\frac{2049}{1519}$	= $\frac{1.35}{}$	$\frac{1.9}{}$
2. Quick	$\frac{\text{Cash + Accts Receivable}}{\text{Current Liabilities}}$	$\frac{739}{1519}$	= $\frac{0.49}{}$	$\frac{1.1}{}$
SAFETY RATIO				
3. Debt to Equity	$\frac{\text{Total Liabilities}}{\text{Equity}}$	$\frac{2118}{1465}$	= $\frac{1.45}{}$	$\frac{1.3}{}$

Ratio Analysis Worksheet



PROFITABILITY RATIOS	Formula	Calculations	Company	Industry (Target)
4. Gross Profit Margin	$\frac{\text{Gross Profit}}{\text{Sales}}$	$\frac{2180}{7100}$	= <u>30.7 %</u>	<u>32.2 %</u>
5. Net Profit Margin	$\frac{\text{Net Profit Before Tax}}{\text{Sales}}$	$\frac{11}{7100}$	= <u>0.15 %</u>	<u>3.1 %</u>
6. Return on Assets (ROA)	$\frac{\text{Net Profit Before Tax}}{\text{Total Assets}}$	$\frac{11}{3592}$	= <u>0.31 %</u>	<u>8.1 %</u>
7. Return on Investment (ROI)	$\frac{\text{Net Profit Before Tax}}{\text{Equity}}$	$\frac{11}{1465}$	= <u>0.75 %</u>	<u>16.4 %</u>

Ratio Analysis Worksheet



<u>ASSET MANAGEMENT RATIOS</u>	<u>Formula</u>	<u>Calculations</u>	<u>Company</u>	<u>Industry (Target)</u>
8. Sales to Assets	$\frac{\text{Sales}}{\text{Total Assets}}$	$\frac{7100}{3592} = 1.98$		$\frac{2.3}{}$
9. Inventory Turnover (x)	$\frac{\text{Cost of Goods Sold}}{\text{Inventory}}$	$\frac{4920}{1217} = 4.04 \text{ x}$		$\frac{5.5 \text{ x}}{}$
10. Inventory (Days)	$\frac{365 \text{ days}}{\text{Inventory Turnover}}$	$\frac{365 \text{ Days}}{4.04} = 90 \text{ Days}$		$\frac{66 \text{ Days}}{}$

Ratio Analysis Worksheet



ASSET MANAGEMENT RATIOS	Formula	Calculations	Company	Industry (Target)
11. A/R Turnover (x)	$\frac{\text{Sales}}{\text{Accounts Receivable}}$	$\frac{7100}{654} = 10.8 \text{ x}$		$\frac{8.3 \text{ x}}$
12. Collection Period (Days)	$\frac{365 \text{ Days}}{\text{A/R Turnover}}$	$\frac{365 \text{ Days}}{10.8} = 34 \text{ Days}$		$\frac{44 \text{ Days}}$
13. A/P Turnover (x)	$\frac{\text{Cost of Goods Sold}}{\text{Accounts Payable}}$	$\frac{4920}{750} = 6.56 \text{ x}$		$\frac{10.8 \text{ x}}$
14. A/P (days)	$\frac{365 \text{ days}}{\text{Accounts Payable Turnover}}$	$\frac{365 \text{ Days}}{6.56} = 56 \text{ Days}$		$\frac{34 \text{ Days}}$