Medical Technology Company

Medical Technology Company (MTC) is a New Jersey-based company specializing in manufacturing electronic medical equipment. MTC's products are used in hospitals, clinics and doctors offices. The company was founded by two doctors, Jose Garcia and Steve Picou and began operations in 2004, initially selling their products to local clinics and hospitals, then expanding to the broader U.S. market.

They have expanded significantly in recent years and now sell a small portion of annual sales to companies in Canada, Mexico, and Europe. Due to the high level of demand for their products, they are able to price all of their sales in US Dollars and sales have been growing rapidly (about 25% per year). For the last three years (2013-2015) their profits have been exceptionally strong, but there always seems to be a shortage of cash for their operations.

Even though Jose and Steve have put in extra equity capital, reinvested all net profit back in the business, and used long-term borrowing as much as possible for the expansion of production facilities, they are continually having to make short-term borrowing arrangements with their bank to cover funds shortfalls, sometimes with very little notice.

Examine MTC's current financial position and see if you can determine why they are having these liquidity problems. The firm's current financial statements, calculation of key ratios and industry averages are provided on the following pages. Assume a tax rate of 35% and a weighted average cost of capital (WACC) of 10%.

Specific Questions:

1. Analyze the financial statements and ratios and assess the company's financial situation and viability as potential lending opportunity (banker's view) or equity investment (portfolio manager's view).
2. Why may companies with high growth rates have liquidity problems?
3. How does the fact that this company is a manufacturer affect its liquidity needs as it grows?
4. Are revenues, profits and cash flows all basically the same thing?
5. What liquidity problems does this firm have?
6. Are the liquidity problems related to the company's growth and capital structure?
7. What would you do to solve this company's problems?
8. Forecasting Question: Assuming a net profit margin of 4.0%, a total asset to sales ratio of 125% and a spontaneous liability to sales ratio of 6.5%, what would the need for additional funding be at sales increase levels of 10%, 15%, and 25%?

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Medical Technology Company - Income Statements

All figures in $1,000

	2013	2014	2015
Revenues	35,435	44,294	55,367
Cost of Goods Sold	21,071	25,690	31,006
Gross Profit	**14,364**	**18,603**	**24,362**
General Operating Expenses	4,846	5,594	6,642
Management Salaries	2,964	3,531	3,833
Insurance	1,053	1,214	1,364
Depreciation	1,243	1,561	1,645
Misc. and Other Expenses	993	1,138	1,340
Operating Profit	**3,265**	**5,566**	**9,538**
Interest Expense	2,122	3,825	6,642
Net Profit Before Taxes	**1,143**	**1,741**	**2,895**
Income Tax (35%)	400	609	1,013
Net Profit After Taxes	**743**	**1,132**	**1,882**

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Medical Technology Company - Year-End Balance Sheet
All figures in $1,000

Assets	**2013**	**2014**	**2015**
Cash & Equivalents	787	524	72
Accounts Receivable	3,531	5,001	6,983
Inventory	7,166	9,579	12,014
Prepaid Expenses	730	1,053	1,231
Total Current Assets	12,214	16,157	20,300
Fixed Assets (net)	21,351	35,618	51,845
Total Assets	**33,565**	**51,775**	**72,144**
Liabilities & Equity			
Accounts Payable	1,750	2,029	2,281
Deferred Taxes & Wages	733	1,021	1,325
Notes Payable	1,052	2,236	3,508
Current Liabilities	3,535	5,286	7,114
Long-Term Debt	13,477	22,804	33,463
Total Liabilities	17,012	28,090	40,577
Common Stock	15,000	21,000	27,000
Retained Earnings	1,553	2,685	4,567
Total Equity	16,553	23,685	31,567
Total Liabilities & Equity	**33,565**	**51,775**	**72,144**

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Medical Technology Co. - Statement of Cash Flows – 2014-2015

All figures in $1,000

	2014	2015
Cash Flows from Operations		
Net Income	1,132	1,882
Adjustments to Reconcile NI to Cash		
Depreciation	1,561	1,645
Increase in Accounts Receivable	(1,470)	(1,983)
Increase in Inventories	(2,413)	(2,435)
Increase in Pre-Paid Expenses	(323)	(177)
Increase in Accounts Payable	279	252
Increase in Accrued Taxes/Wages	288	304
Net Cash from Operating Activities	**(947)**	**(511)**
Cash Flows from Investing		
Capital Expenditures (Net)	(14,266)	(16,227)
Depreciation Adjustment	(1,561)	(1,645)
Net Cash from Investing	**(15,827)**	**(17,872)**
Cash Flows from Financing		
Increase in Notes Payable	1,184	1,272
Increase in Long-Term Debt	9,327	10,659
Increase in Common Stock	6,000	6,000
Net Cash from Financing	**16,511**	**17,931**
Net Change in Cash	**(263)**	**(452)**

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Medical Technology Company – Key Financial Ratios – 2013-2015

	2013	2014	2015	Ind. Avg.
Current Ratio (CA/CL)	3.46	3.06	2.85	**3.50**
Quick Ratio (Cash+AR/CL)	1.22	1.05	0.99	**1.25**
Cash Flow to Total Debt	0.14	0.11	0.10	**0.15**
Times Interest Earned (OP/Int Exp)	1.54	1.46	1.44	**1.65**
LT Debt to Capital (LTD/LTD+TE)	44.9%	49.1%	51.5%	**45%**
Total Liabilities to Total Assets	50.7%	54.3%	56.2%	**50%**
Return on Sales (NI/Sales)	2.1%	2.6%	3.4%	**5.0%**
Total Asset Turnover (Sales/TA)	1.06	0.86	0.77	**0.90**
Return on Total Assets	2.2%	2.2%	2.6%	**4.5%**
Equity Multiplier (TA/Eq)	2.03	2.19	2.29	**1.25**
Interest/Total Debt	14.6%	15.3%	18.0%	**12.5%**
Return on Common Equity	4.5%	4.8%	6.0%	**5.6%**
Economic Value Added (EVA)	-$880,750	-$1,031,000	-$303,300	**+$2.0 M**
Days' Inventory	**124**	**136**	**141**	**110**
Days' Receivables	**36**	**41**	**46**	**32**
Days' Payables	**30**	**29**	**27**	**33**
Cash Conversion Cycle	**130**	**148**	**161**	**109**

Industry Averages are for similar sized companies in same industry as Medical Technology Company.

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