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BAYERN BRAUEREI

In early January 1993, Maria Ober arrived at Bayern Brauerei[1] to participate in her first meeting of the board of directors. She had recently joined the board at the behest of her Uncle August Ober, the managing director of the company, who told her that the board could use her financial expertise in addressing some questions that would come up in the near future, but August would not be specific as to the nature of those questions. The company was owned entirely by 16 uncles, aunts, and cousins in the Ober family. Maria had received an MBA from a well-known business school and had worked for the past six years as a commercial loan officer for a leading bank in Frankfurt, Germany. With the permission of the bank, she agreed to join the Bayern Brauerei board.

The agenda for the January meeting of the directors consisted of three items of business: (1) approval of the 1993 financial budget, (2) declaration of the quarterly dividend, and (3) adoption of a compensation scheme for Max Leiter, the company's sales and marketing manager. Because Maria knew little about the company, she decided to visit it for a day before the first board meeting.

The Company

Bayern Brauerei produced two varieties of beer, dark and light, for which it won quality awards consistently over the years. Its sales and profits in 1992 were (German deutsche mark) DEM102.3 million and DEM2.6 million, respectively.[2] (See **Exhibit 1** for historical and projected financial statements.) Founded in 1737, the Bayern Brauerei had been in the Ober family for 12 generations. An etching of Gustav Ober, the founder, graced the label of each bottle of beer.

The company was located in a village just outside Munich, Germany. Its modern equipment was capable of producing 700,000 hectoliters of beer per year. In 1992, the company sold 667,000 hectoliters. The newer production equipment was acquired in 1987 following a fire that destroyed the old equipment.

[1] In English, Bayern Brauerei (BI-ern BROY-reye) means Bavarian Brewery.
[2] In January 1993, the German deutsche mark (DEM) could be exchanged for about (United States dollar) US$0.63.

Because of its efficiency improvements and slightly larger size, the new equipment increased the potential output of the brewery. This additional capacity remained unused, however, until late 1989. In that year, the Berlin Wall fell, and Germans were permitted to move freely between the eastern and western portions of Germany. August Ober envisioned a significant new market for high-quality beer in eastern Germany and resolved to penetrate that market. Accordingly, in 1990 he hired Max Leiter away from a major beer producer in order to rejuvenate the Bayern Brauerei sales staff and to move aggressively to position Bayern's beer in *die neuen Bundesländer* (the new federal states, *Länder*)[3] that joined with West Germany in the unification of 1990.

In early 1993, German consumers accounted for all of the company's sales, of which 81% were in western Germany (mainly, the states of Baden and Bavaria) and 19% in the new federal states. Despite the relatively small portion of total sales, however, the eastern *Länder* had accounted for most of the unit growth in Bayern's sales over the past three years.

Bayern served its markets through a network of independent distributors. In western Germany, those distributors purchased Bayern's beer, stored it temporarily in their own refrigerated warehouses, and ultimately sold it to *their* customers at the retail end of the distribution chain (e.g., stores, restaurants, and hotels). Leiter adopted a different distribution strategy with regard to the eastern *Länder*.

Lunch with Uncle August

After driving down from Frankfurt, Maria's visit began with a luncheon meeting with August Ober. Now age 57, August had worked at the brewery for his entire career. His experience had been largely on the production side of the brewery, where he had risen to the position of brew master before assuming the general management of the company upon the retirement of his father. August said:

> Over the long history of this company, the Obers have had to be brewers, not marketers or finance people. As long as we made an excellent product, we always sold our output at the price we asked. Then, in 1989, I realized that we needed more than just production knowledge. I wanted to enter the eastern *Länder* market because it had traditionally been a good market for our beer before the partition in 1949. Returning to eastern Germany was, for me, reclaiming a lost market. Thus I hired Max Leiter to lead this initiative.

[3] Five new federal *Länder* emerged from the former German Democratic Republic, commonly known as East Germany. This region included an area of 106, 000 square kilometers and a population of about 15.1 million. The region was dominated by Berlin, which added a population of about 3.4 million. Emigration from the eastern *Länder* was expected to reduce population slightly over the next few years. At the time of unification, the manufacturing industry in this region was plagued by badly outdated premises, plants, and equipment. Shortly thereafter, industrial production and incomes fell dramatically as enterprises in the region closed their doors. In January 1993, the economic recovery of the eastern *Länder* was proving to be painfully slow.

I'm quite pleased with what Leiter has been able to accomplish. He has organized five distributorships, taken us from 0 to 211 customer accounts, and set up warehousing arrangements—all in 30 months and on a small budget! He really produces results. I am afraid I will have to pay him a lot more money next year, if I am to keep him. As it is, I paid him DEM122,860 in 1992, consisting of a base salary of DEM80,000 and an incentive payment of DEM42,860, which is calculated as 0.5% of the annual sales increase. As you know from my letter to the board of directors, I am proposing increases in both his base salary (to DEM95,000) and incentive payment (to 0.8% of the annual sales increase).

Leiter was very helpful in pulling together the financial plan for 1993 (**Exhibit 1**). It shows handsomely rising sales and profits! Also, he prepared various analytical presentations, including a sources and uses of funds statement (**Exhibit 2**) and a detailed ratio analysis (**Exhibit 3**). One very helpful analysis was the breakeven chart[4] Leiter prepared (**Exhibit 4**). It shows that, as we increase our volume above the breakeven volume, our profits rise disproportionately faster.

If we keep on this growth course, we will exhaust our existing unused productive capacity by late 1993. The budget for 1993 calls for an investment of DEM8.8 million in new plant and equipment. Leiter has proposed that in 1994 we invest DEM8.6 million in a state-of-the-art warehouse and distribution center in Berlin. He argues that we won't be able to sustain our growth in the eastern *Länder* without those major investments. I haven't even begun thinking about how we will finance all that growth. In recent years, we have depended more on short-term bank loans than we used to. I don't know whether we should continue to rely on them to the extent that we have. Right now, we can borrow from our long-standing *Hausbank* at an 11% rate of interest.[5] Our banker asked me to meet with him next week to discuss our expansion plans; I'm guessing that he can't wait to get more of our business!

With the improved profits, I am proposing an increase in dividends for this quarter equal to DEM650,000, one-fourth of the dividends projected to be paid in 1993. This should keep the Ober family happy. As you know, half of our family stockholders are retirees and rely on the dividend to help make ends meet. We have traditionally aimed for a 75% dividend payout from earnings each year to serve our older relatives.

[4] This chart shows the relationship between revenues, costs, and volume of output. For instance, revenues are calculated as the volume of hectoliters of beer sold times the unit price of DEM153.46 per hectoliter. Fixed costs (DEM27.814 million) remain constant as unit output varies and are the sum of administrative and selling expenses plus depreciation. Variable costs are the sum of production costs, excise duties, and allowance for doubtful accounts, or DEM102.29 per hectoliter. At any given level of output, total costs are the sum of variable and fixed costs. Profits or losses are illustrated as the difference between the revenue and total-cost lines, but note carefully that profit here is implicitly defined as earnings before interest and taxes (EBIT). This analysis identifies the breakeven volume, where revenues equal total costs. Bayern Brauerei's breakeven volume was 543,607 hectoliters.

[5] In January 1993, the annual rate of return on short-term German government debt was 8.25%.

August Ober had been quite talkative during the meal, allowing Maria little opportunity to ask questions or offer her own opinions. She was disquieted by some of the statements she heard, however, and resolved to study the historical and forecasted financials in detail. Then, quite abruptly, Uncle August announced that lunch was done and he would take her to meet Max Leiter.

Meeting with Leiter

After the introductory pleasantries, Maria asked Leiter to describe his marketing strategy and achievements in the eastern *Länder*. Leiter explained:

> Our beer almost sells itself. Discount pricing and heavy advertising are unwarranted. The challenge is getting people to try it and getting it into a distribution pipeline, so that when the consumer wants to buy more, she can do so. But in 1990 and 1991, the beer distribution pipeline in eastern Germany was nonexistent. I had to go there and set up distributorships from nothing. There were willing entrepreneurs, but they had no capital. I provided the best financing I knew how, in the form of trade credit concessions. First, I extended credit to distributors in the East who could not bear the terms that we customarily gave our distributors in western Germany. I relaxed the terms to those new distributors from 2% 10 net 40 to 2% 10 net 80.[6] Even on these terms, our distributors were asking for more time to pay. I plan to relax the payment deadline to 90 days. I am confident that we will collect on all of those receivables. My forecast assumes that bad debts as a percentage of accounts receivable will amount to only 2%.
>
> Those distributors are real entrepreneurs. They started with nothing but their brains. They have great ambitions and learn quickly. Some of them have gotten past due on their payments to us, but I suspect that they will catch up in due course. Virtually all the retailers and restaurateurs we supply are expanding and enhancing their shops, buying modern equipment, and restocking their own inventories—all without the support of big banks like yours in Frankfurt! Most of those retailers can't get bank credit; their "bootstrap" financing is ingenious and admirable. A little delay in payment is understandable. Where we see great opportunity in those distributors, the banks see no collateral, low profits, negative cash flow, and high risk. I know those distributors better than the banks know them. I think we'll make a profit on our investment there. My analysis (**Exhibit 5**) suggests that we are earning a very high return on our investment in receivables in the eastern *Länder*. We borrow at 11% from our bank in the West, and use those funds to finance receivables in the East, which gives us a return of about 140%!

[6] "2% 10, net 40" means that Bayern's customer can take a 2% discount if payment is made within 10 days of the invoice, and that otherwise the full payment is due within 40 days.

> I should add that the other parts of my marketing strategy involve field warehousing to permit rapid response to market demand, and quite a lot of missionary activity to see that our beer receives the proper placement in stores and restaurants. My policy on field inventories has been to support the fragile distributor network by carrying a substantial part of the inventory on behalf of the distributor. This has resulted in a sizable increase in inventory for the company in 1991 and 1992.
>
> These new marketing policies have paid off handsomely in terms of our unit growth in the new federal states. Sales in the eastern *Länder* grew 47% in 1992—a rate of increase that I aim to sustain for the foreseeable future. Without my changes in credit and inventory policy, we would have realized only a small fraction of our current level of sales there. In 1993, I hope to establish five more distributors and place our beer in an additional 100 stores and restaurants.

Maria inquired about the signs of economic recession in Germany and the deep recession in the eastern *Länder*. Leiter seemed relatively unconcerned and said confidently that unit sales in the new federal states would rise significantly in 1993. At the close of the meeting, Maria asked for information on Bayern's credit customers. Leiter supplied several files from which he extracted the summary information shown in **Exhibit 6**.

Conclusion

After a lengthy dinner that evening, at which Maria met the other directors, she returned to the information she had gathered that day. She would need to form an opinion on the three matters coming before the board the next day (the financial plan, the dividend declaration, and the compensation plan for Leiter). She also wanted to study the company's reliance on debt financing. The other directors would be interested to know why the company needed to borrow so aggressively if it was operating so profitably above its breakeven volume. Maria also wondered about the wisdom of Bayern's aggressive penetration of the eastern *Länder*. Did rapid sales growth necessarily pay off in terms of more profits or dividends? All this would require more study. She yawned and then poured herself a cup of coffee before returning to scrutinize the numbers.

Exhibit 1

Historical and Projected Income Statements and Balance Sheets
(fiscal year ended December 31; all figures in DEM thousands)

Historical and Projected Income Statements

	Actual				Projected	
	1989	1990	1991	1992	1993	1994
1. Sales: western *Länder*	78,202	78,984	80,959	83,476	85,981	88,560
2. Sales: eastern *Länder*	—	3,113	12,825	18,879	27,375	35,587
3. Net sales	78,202	82,097	93,784	102,355	113,355	124,147
Operating expenses						
4. Production costs and expenses	40,667	43,390	50,159	56,298	64,302	69,272
5. Admin. and selling expenses	15,734	15,967	18,663	20,164	21,000	24,000
6. Depreciation	4,550	5,439	7,367	7,650	7,650	8,530
7. Excise duties	11,526	11,174	11,734	11,949	12,469	13,656
8. Total operating expenses	(72,477)	(75,970)	(87,923)	(96,061)	(105,421)	(115,458)
9. Operating margin	5,725	6,127	5,861	6,294	7,935	8,689
10. Allowance for doubtful accounts	(9)	(6)	(28)	(19)	(188)	(46)
11. Interest expense	(841)	(778)	(2,260)	(2,085)	(2,406)	(2,679)
12. Earnings before taxes	4,875	5,343	3,573	4,190	5,341	5,964
13. Income taxes	(1,647)	(1,845)	(1,412)	(1,634)	(1,869)	(2,087)
14. Net earnings	3,228	3,498	2,161	2,556	3,471	3,877
15. Dividends to all common shares	2,428	2,628	1,622	1,917	2,604	2,908
16. Retention of earnings	800	870	539	639	868	969

Source: Case writer analysis.

Exhibit 1 (continued)

Historical and Projected Balance Sheets

	Actual				Projected	
	1989	1990	1991	1992	1993	1994
Assets						
1. Cash	6,764	10,040	11,254	12,283	13,603	14,898
2. Accounts receivable:						
Western *Länder*	8,740	9,004	9,104	9,477	9,658	9,948
Eastern *Länder*	0	310	2,987	4,505	6,750	8,775
Allowance for doubtful accounts	(87)	(93)	(121)	(140)	(328)	(374)
3. Inventories	7,732	7,853	8,965	14,330	15,870	17,381
4. Total current assets	23,149	27,114	32,189	40,455	45,552	50,627
5. Investments and other assets	3,911	3,913	3,918	3,914	3,000	3,000
6. Gross prop., plant, and equip.	73,667	73,667	76,500	76,500	85,300	93,933
7. Accumulated depreciation	(29,505)	(34,944)	(42,311)	(49,961)	(57,611)	(66,141)
8. Net property, plant, and equip.	44,162	38,723	34,189	26,539	27,689	27,792
9. Total assets	71,222	69,750	70,296	70,908	76,242	81,419
Liabilities and stockholders' equity						
10. Bank borrowings (short term)	3,765	7,172	7,640	7,892	12,651	16,977
11. Accounts payable	4,511	4,607	4,705	5,328	5,668	6,207
12. Other current liabilities	9,325	9,031	10,316	11,259	12,469	13,656
13. Total current liabilities	17,601	20,810	22,661	24,479	30,788	36,841
14. Long-term debt, bank borrowings	20,306	14,755	12,911	11,066	9,222	7,378
15. Stockholders' equity	33,315	34,185	34,724	35,363	36,231	37,201
16. Total liab. & stockholders' equity	71,222	69,750	70,296	70,908	76,242	81,419

Source: Case writer analysis.

Exhibit 2

Sources and Uses of Funds Statements
(fiscal year ending December 31; all figures in DEM thousands)

	Actual			Projected	
	1990	1991	1992	1993	1994
Sources of Funds					
1. Net income	3,498	2,161	2,556	3,471	3,877
2. Increases in allowance for doubtful accounts	6	28	19	188	46
3. Depreciation	5,439	7,367	7,650	7,650	8,530
4. Increases in short-term debt	3,407	468	252	4,761	4,326
5. Increases in accounts payable	96	98	623	340	540
6. Increases in other current liabilities	(294)	1,285	943	1,210	1,187
7. Total sources of funds	12,152	11,407	12,043	17,620	18,505
Uses of Funds					
8. Dividend payments	2,628	1,622	1,917	2,604	2,908
9. Increases in cash balance	3,276	1,214	1,029	1,320	1,295
10. Increases in accts. receivable (W. Ger.)	264	100	373	181	290
11. Increases in accts. receivable (E. Ger.)	310	2,677	1,518	2,245	2,025
12. Increases in inventories	121	1,112	5,365	1,540	1,511
13. Increases in other assets	2	5	(4)	(914)	0
14. Reductions in long-term debt	5,551	1,844	1,845	1,844	1,844
15. Capital expenditures	0	2,833	0	8,800	8,633
16. Total uses of funds	12,152	11,407	12,043	17,620	18,505

Source: Case writer analysis.

Exhibit 3

Ratio Analyses of Historical and Projected Financial Statements
(fiscal year ended December 31)

	Actual				Projected	
	1989	1990	1991	1992	1993	1994
Profitability						
1. Operating profit margin (%)	7.3	7.5	6.2	6.1	7.0	7.0
2. Average tax rate (%)	33.8	34.5	39.5	39.0	35.0	35.0
3. Return on sales (%)	4.1	4.3	2.3	2.5	3.1	3.1
4. Return on equity (%)	9.7	10.2	6.2	7.2	9.6	10.4
5. Return on net assets (%)	6.5	7.1	6.9	7.5	8.9	9.2
6. Return on assets (%)	4.5	5.0	3.1	3.6	4.6	4.8
Leverage						
7. Debt/Equity ratio (%)	72.3	64.1	59.2	53.6	60.4	65.5
8. Debt/Total capital (%)	41.9	39.1	37.2	34.9	37.6	39.6
9. EBIT/Interest (H)	6.8	7.9	2.6	3.0	3.3	3.2
Asset Utilization						
10. Sales/Assets	1.10	1.18	1.33	1.44	1.49	1.52
11. Sales growth rate (%)	4.0	5.0	14.2	9.1	10.7	9.5
12. Assets growth rate (%)	6.0	-2.1	0.8	0.9	7.5	6.8
Receivables growth rate (%):						
13. Germany	4.0	6.6	29.8	15.6	17.4	14.1
14. Western *Länder*	4.0	3.0	1.1	4.1	1.9	3.0
15. Eastern *Länder*	0.0	NMF	863.5	50.8	49.8	30.0
Days in receivables:						
16. Germany	40.8	41.4	47.1	49.9	52.8	55.0
17. Western *Länder*	40.8	41.6	41.0	41.4	41.0	41.0
18. Eastern *Länder*	NMF	36.3	85.0	87.1	90.0	90.0
19. Payables to sales (%)	5.8	5.6	5.0	5.2	5.0	5.0
20. Inventories to sales (%)	9.9	9.6	9.6	14.0	14.0	14.0
Liquidity						
21. Current ratio	1.32	1.30	1.42	1.65	1.48	1.37
22. Quick ratio	0.88	0.93	1.02	1.07	0.96	0.90

Exhibit 3 (continued)

Notes: These financial ratios show the performance of the firm in four important areas:

Profitability is measured both in terms of *profit or expense margins* (lines 1–3) and as *investment returns* (lines 4–6). Investors will focus on the latter measures of profitability.

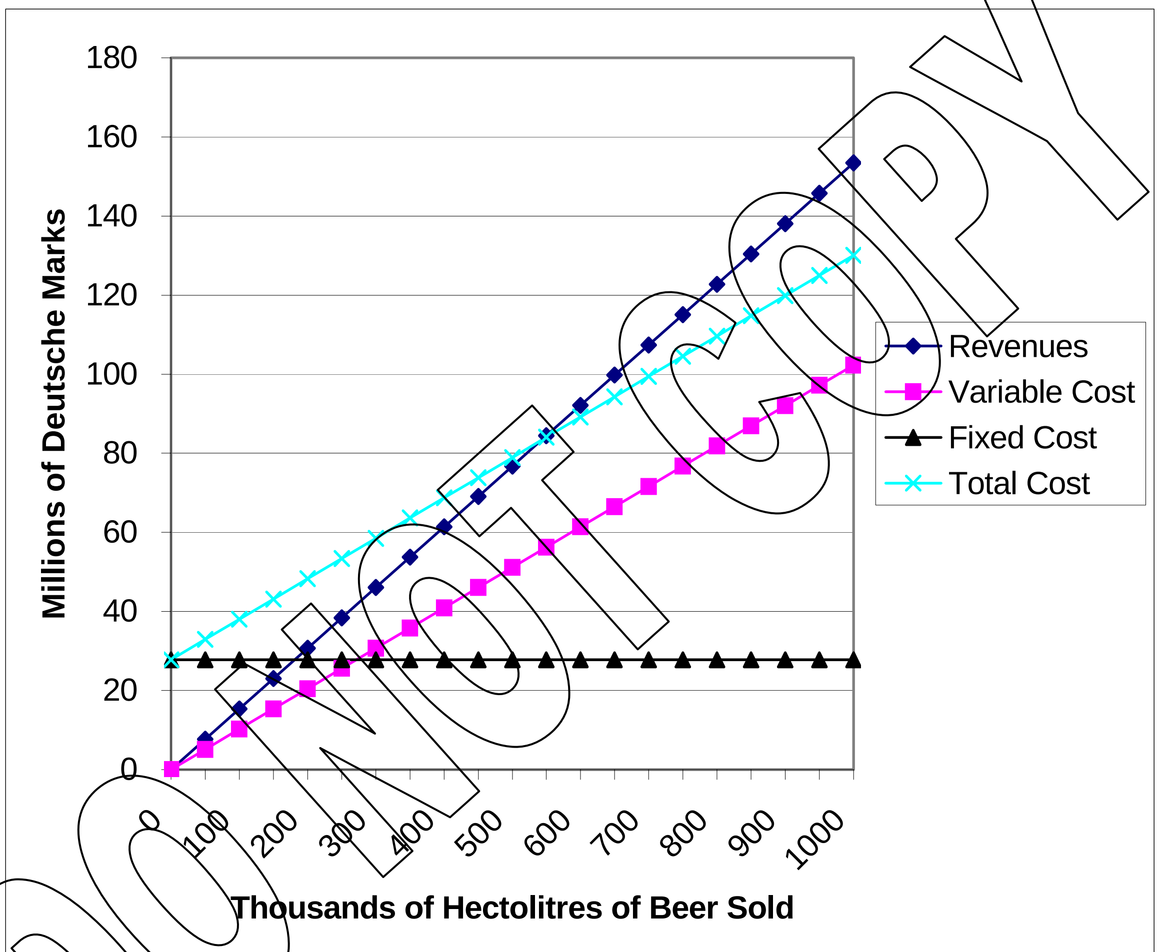
Leverage ratios measure the use of short-term and long-term debt financing by the firm. In general, higher usage of debt increases the risk of the firm. Higher ratios of debt to equity and to capital (lines 7 and 8) suggest higher financial risk. The ratio of EBIT to interest expense measures the ability of the firm to *cover* its interest payments; lower levels of this ratio suggest higher risk (line 9).

Asset-utilization ratios measure the efficiency of asset use. For instance, the sales-to-assets ratio (line 10) shows how many DEM of sales are generated per DEM of assets; a higher figure suggests more efficiency, and a lower figure suggests less efficiency. Over the long-term, differences in the growth rates of sales (line 11) and assets (line 12) can lead to production problems of over- or undercapacity. Days in receivables (lines 16–18) shows how many days it takes to collect the average credit sale; the longer it takes, the greater the investment in receivables.

Liquidity ratios measure the resources available to meet short-term financial commitments. The current ratio (line 21) is the ratio of all current assets to all current liabilities. The quick ratio (line 22) is the ratio of only cash and receivables (i.e., those assets that can be liquidated quickly) to all current liabilities.

Exhibit 4

Breakeven Chart for Bayern Brauerei
(1992)



Source: Case writer analysis.

Exhibit 5

Leiter's Analysis of the Return on Investment from Investment in Accounts Receivable in the Eastern *Länder*

To: August Ober
From: Max Leiter

The following table illustrates the high profitability that we have achieved on our investment in receivables in the eastern *Länder*. We can look forward to a return of about 140% on our receivables from the East.

The return on investment is calculated as follows:

$$\textit{Return on Investment} = \frac{\textit{Marginal After-Tax Profit Contribution}}{\textit{Required Marginal Investment}}$$

The numerator is simply the profits we earn on new sales each year in the East. It excludes the fixed costs because we assume those costs have been covered already. We want to focus on the *marginal* events only. Also, it assumes that, without the extension of credit, no sales growth would occur in eastern Germany. The denominator is Bayern's investment in the receivables. This is *not* the face amount of the receivables. It is only the cash outlay for the product underlying the receivable. Accordingly, for 1993, the calculation is:

$$\begin{aligned}\textit{Investment in Accounts Receivable (AR)} &= \textit{(Variable Costs} \div \textit{Sales)} \times \textit{Change in AR} \\ &= (102.29 \div 153.46) \times 2{,}245{,}000 \\ &= \textit{DEM}1{,}496{,}420.\end{aligned}$$

Assumptions	
Revenue per HL (DM)	153.46
Variable Costs per HL (DM)	102.35
Contribution Percentage	33%
Tax Rate	35%

	1989 (Actual)	**1990 (Actual)**	**1991 (Actual)**	**1992 (Actual)**	**1993 (Proj'd)**	**1994 (Proj'd)**
Sales in Eastern Lander (DM, thousands)	-	3,113	12,825	18,879	27,375	35,587
Change in Sales (DM, thousands)	-	3,113	9,712	6,054	8,496	8,212
Variable Costs on the Marginal Sales	-	(2,076)	(6,478)	(4,037)	(5,666)	(5,477)
Contribution on the Marginal Sales	-	1,037	3,235	2,016	2,829	2,735
Taxes on the Marginal Contribution	-	(363)	(1,132)	(706)	(990)	(957)
Marginal After-tax Profits (DM thousands)	-	674	2,103	1,311	1,839	1,778
Variable Costs/Sales	-	67%	67%	67%	67%	67%
Change in Accounts Receivable, Eastern Lander (DM thousands)	-	310	2,677	1,518	2,245	2,025
Investment in Accts. Receivable (DM thousands)	-	207	1,785	1,012	1,497	1,351
Return on Marginal Investment in Receivables	**0%**	**326%**	**118%**	**129%**	**123%**	**132%**

Exhibit 6

Selected Information on Bayern's Distributors in the Eastern *Länder*

Bayern Distributors by City:	**Magdeburg**	**Chemnitz**	**Dresden**	**Gera**	**Berlin**	**Composite Ratios, German Beer Distribution Industry**
Income Data						
Net sales: 1992	DEM4,500,000	DEM3,600,000	DEM3,100,000	DEM1,500,000	DEM6,179,000	NA
Operating profit/Sales	1.8%	2.2%	3.0%	1.1%	3.5%	3.7%
Pretax profit/Sales	1.7%	1.9%	2.3%	0.7%	3.1%	3.5%
Assets (as % of total)						
Trade receivables	12.9%	13.5%	16.5%	19.5%	13.0%	12.0%
Inventory	15.1%	19.0%	30.0%	25.0%	22.0%	31.0%
Fixed assets	33.1%	29.1%	25.0%	21.0%	28.0%	24.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Liabilities						
ST bank borrowings	0.1%	2.1%	1.5%	2.5%	4.0%	15.0%
Trade payables	29.2%	32.2%	28.7%	37.5%	19.0%	16.3%
Total curr. liabs.	35.0%	41.0%	33.2%	43.2%	27.0%	39.4%
LT debt	2.5%	0.0%	3.0%	0.0%	5.0%	16.0%
Net worth	32.5%	59.0%	63.8%	56.2%	68.0%	44.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ratios						
Current ratio	1.1	1.2	1.1	0.9	1.6	1.4
Days' sales outstanding	27.7	25.9	27.4	39.5	19.8	19.4
Sales/Assets	2.0	1.9	2.2	1.8	2.4	2.3
Pretax profit/Assets	2.9%	3.6%	5.1%	1.3%	7.4%	8.0%
Debt/Equity	8.0%	3.6%	7.1%	4.4%	13.2%	69.5%

Source: Case writer analysis.