

Case 20 : aurora textile company

[Business](#), [Company](#)



Case 20: Aurora Textile Company GROUP QUESTIONS Learning Objectives: 1.

The basics of incremental-cash-flow analysis: identifying the cash flows relevant to a capital-investment decision 2. The construction of a side-by-side discounted-cash-flow analysis for a replacement decision 3. How to adapt the NPV decision rule to a troubled industry 4. The recognition that a reduced investment horizon is a significant consequence of financial distress 5. The importance of sensitivity analysis to a capital-investment decision

Case Questions 1. How has Aurora Textile performed over the past four years?

Be prepared to provide financial ratios that present a clear picture of Aurora's financial condition. From 1999 through 2002, the financial performance of Aurora was unattractive and disheartening. This could be attributed to the business risks that arose from the intense competition that characterizes the industry in which Aurora operates. Absent an industry benchmark or comparable with which to gauge the performance of Aurora, we utilized a trend analysis of the period 1999 through 2002. With 1999 as a reference point, we noticed that all measures of profitability have worsened.

On a cumulative annual basis, net sales have been declining by 15%, while profit margins and ROA were always in the negative (see exhibit 1). While raw material cost as a percentage of net sales have been declining, the cost of conversion is escalating and affecting the bottom-line (see exhibit 1). It is obvious that Aurora needs to manage its expenses to generate profits from sales. While on the surface, the liquidity measures have improved (see exhibit 1), it is doubtful that the company has the ability to meet its current obligations with just cash and cash equivalents on hand.

This is partially due to the fact that many of the firm's current assets are predominantly account receivables and inventories. While it is true that the firm, its competitors, and the industry are continuing to lose money, an effective cost-control strategy - i. e. a strategy that improves profit margins, reduces operating costs, and appropriately manages inventory and account receivables will be crucial for Aurora to remain sustainable. 2. List the factors affecting the textile industry. What do you think is the state of the industry in the United States?

How should you incorporate the state of the textile industry into your analysis? Why should anyone invest money in the industry? 3. What are the relevant cash flows for the Zinser investment? Using a 10% WACC and assuming a 36% tax rate, what do you get as the NPV for the project? What are the value drivers in your analysis? What do you estimate as the cost per pound for customer returns under the Zinser alternative? (Hint: for a replacement decision, analysts often find it helpful to prepare two sets of cash flows and two NPVs—one for the status quo and one for the new machine. Status Quo In the first year of the project, we calculated net sales assuming the current 500, 000 pounds per week production level at a \$1.0235 selling price per pound (52-week year). After the first 3 year, we assume sales will grow by 2% in volume and 1% in price. Material and conversion costs will not change, but will increase at a pace of 1%. SG&A costs are equal to 7% of net sales so will adjust accordingly. Change in inventory is cash spent so it should be considered when calculating cash flows.

In our analysis we calculated inventory by dividing COGS by the number of days in a year and then multiplying by the number of days of inventory held, 30 days in the status quo scenario. The current equipment will be depreciated using the straight-line method with zero salvage value. The current book value of the machine is \$800, 000 and the depreciation expense is \$200, 000 for the next four years. Using these assumptions, keeping all else constant, in a 10-year horizon the NPV of the Hunter Plant is about \$8. 1 million (see exhibit 2). New Project - Invest in Zinser Machine Aurora Textile Company also has the option of investing in a new Zinser machine for the Hunter Plant. The main difference between investing in the Zinser machine and maintaining the status quo is an initial investment of \$8. 25 million and the receipt of \$608, 000 in after-tax sales proceeds from selling the existing machine. Additionally, there is an initial \$50, 000 (\$32, 000 after-tax) cost for training employees, but this cost is only incurred once (see exhibit 3).

In their first year using the Zinser machine there will be a 5% decrease in sales volume, but selling price will increase 10%. Material costs per pound will be the same as the status quo, but conversion costs will decrease to \$0. 4077 per pound per year due to lower power, maintenance and return costs. Days of inventory held will also drop to about 20 days. All other assumptions are the same as the status quo. In this scenario, the NPV of the Hunter Plant is about \$15. 87million if Aurora invests in the new Zisner machine (see exhibit 3). Incremental Cash Flows - The Net Effect of the New Project

When looking at the incremental cash flows for the new project, replacing the old machine with the Zinser machine is a good investment. The NPV of

the investment is \$6.33 million and the IRR is 28%, much higher than the 10% hurdle rate (see exhibit 4). While all the assumptions made could affect the NPV of the project, the major concern that could erode the value of the project is whether Aurora can survive for 10 years. In our early termination analysis (see exhibit 5), if we ignore the salvage value the time horizon breakeven point of incremental NPV is between 4 and 5 years, about 4.5 years. However, even if Aurora shuts down, the earlier they terminate, the higher the salvage value of the Zinser machine will be. Therefore, the time period to breakeven might be less than 4 years. If the Zinser machine can be sold for its 50% book value at early termination, it only needs 2 years for the project to add value to the Aurora Textile Company.

4. How sensitive is the economic life of the Zinser investment to its value to investors? In other words, if the company survives the entire 10 years, what is the NPV of the project?

What if the company can survive only four years, what is the NPV of the project? For our sensitivity analysis, the main things we focused on were production levels and price. Here is a chart representing the IRRs for certain production levels and prices. Our production level estimates were based on the fact that we don't know how the market will react with increased foreign competition. The textile growth rate we used for our most likely model is the domestic rate of growth, not the world growth rate.

We don't know if letting foreign competitors into the market would significantly shift the industry out of America or if it will keep a constant growth (at 2%). Our price estimates were based on the new WTO mandate that is going into effect in 2005. With the tariffs and quotas on the textile

industry being lifted, there will be a significant growth in the amount of textile goods imported into America. Even though the cost may be high to transport these goods into the states 5. What would be your recommendation to the Board of Directors?

Specifically would it be better to invest in the Zinser or to pay a dividend to the shareholders. Be sure to explain the primary reasons that justify your recommended course of action. The U. S. textile industry is going through a tumultuous time, and most companies are experiencing losses. Therefore, it would seem like an odd time to invest more money into the company. However, as the industry evolves Aurora Textile Company needs to innovate to stay competitive. The industry is moving toward demand for a higher quality product, and Aurora cannot afford to fall behind.

The Zinser machine will help Aurora meet this demand. If the project were accepted, the Zinser machine would replace the current machine in the Hunter Plant. Because the other three Aurora plants would not be affected by this decision, we compared the cash flows of only the Hunter plant with the new machine and without. The NPV of the Hunter Plant is about \$15. 86 million if Aurora invests in the Zisner machine, and only \$8. 91 million without the investment. In addition, when looking at the incremental cash flows of the investment, the NPV is \$6. 6 million and the IRR is 28%, much higher than the 10% hurdle rate. Taking all of this into consideration Aurora should invest in the project. In addition to accepting this project, falling spot prices for cotton could be beneficial to Aurora Textile Company in the future. However, the company also needs to implement other strategies to improve their profit margins, including reducing operating costs and appropriately

managing inventory and account receivables. These changes will help Aurora move in the right direction to ensure that they are not forced to shut down operations in the foreseeable future