**Chapter 13 Alternate Demonstration Problem**

**Following are data from the statements of two companies selling similar products:**

|  |  |  |
| --- | --- | --- |
| **Current Year-End Balance Sheets** | | |
|  | **Sled Company** | **Zip Company** |
| **Cash** | **$ 11,900** | **$ 20,000** |
| **Notes receivable—short-term** | **7,700** | **3,200** |
| **Accounts receivable, net** | **42,000** | **64,000** |
| **Inventory** | **58,800** | **87,680** |
| **Prepaid expenses** | **1,680** | **3,520** |
| **Plant and equipment, net** | **232,120** | **274,400** |
| **Total assets** | **$354,200** | **$452,800** |
|  |  |  |
| **Current liabilities** | **$ 56,000** | **$ 80,000** |
| **Mortgage payable** | **70,000** | **80,000** |
| **Common stock, $10 par value** | **140,000** | **160,000** |
| **Retained earnings** | **88,200** | **132,800** |
| **Total liabilities and stockholders’ equity** | **$354,200** | **$452,800** |
|  |  |  |
| **Data from the Current Year’s Income Statement** | | |
| **Sales** | **$672,000** | **$880,000** |
| **Cost of goods sold** | **528,080** | **699,840** |
| **Interest expense** | **4,200** | **5,600** |
| **Net income** | **23,373** | **28,896** |
| **Beginning-of-Year Data** | | |
| **Inventory** | **$ 53,200** | **$ 85,120** |
| **Total assets** | **345,800** | **443,200** |
| **Stockholders’ equity** | **217,000** | **285,120** |

**Required:**

1. **Calculate current ratios, acid-test ratios, inventory turnovers, and days’ sales uncollected for the two companies. Then state which company you think is the better short-term credit risk and why.**
2. **Calculate return on total assets employed and return on stockholders’ equity. Then, under the assumption that each company’s stock can be purchased at book value, state which company’s stock you think is the better investment and why.**

Solution: Chapter 13 Alternate Demonstration Problem

**Part 1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Sled Company** | | **Zip Company** | |
|  |  |  |  |  |
| **Current ratio:** | **$122,080 $ 56,000** | **= 2.18 to 1** | **$178,400 $ 80,000** | **= 2.23 to 1** |
|  |  |  |  |  |
| **Acid-test ratio:** | **$ 61,600 $ 56,000** | **= 1.10 to 1** | **$ 87,200 $ 80,000** | **= 1.09 to 1** |
|  |  |  |  |  |
| **Inventory  turnover:** | **$528,080 $ 56,000** | **= 9.4 times** | **$669,840 $ 86,400** | **= 7.8 times** |
|  |  |  |  |  |
| **Days’ sales  uncollected:** | **$ 42,000 $672,000** | **x 365 = 22.8** | **$ 64,000 $880,000** | **x 365 = 26.5** |

**Sled Company and Zip Company have almost equal current and acid-test ratios, so near the same that the differences are not significant. However, Sled Company turns its inventory and collects its accounts receivable more rapidly than Zip Company; and on this basis it appears to be a better short-term credit risk.**

Part 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Return on total assets:** | **$ 23,373 $350,000** | **= 6.68%** | **$ 28,896 $448,000** | **= 6.45%** |
| **Return on stockholders’ equity:** | **$ 23,373 $222,600** | **= 10.5%** | **$ 28,896 $288,960** | **= 10.0%** |

**Assuming that the stock of each company could be purchased at book value, Sled Company’s stock seems to be the better investment. This conclusion is based on Sled’s slightly better return on stockholders’ equity (or return on the investment) of 10.5% compared with 10% for Zip. In addition, the better inventory turnover, days’ sales uncollected, and return on total assets employed indicate that Sled Company might be the better managed company. This information reinforces the conclusion as to which stock is the better investment.**