**SCENARIO**

Home Health, Inc., has come to Jane Ross for a yearly financial checkup. As a first step, Jane has prepared a complete set of ratios for fiscal years 2002 and 2003. She will use them to look for significant changes in the company’s situation from one year to the next.

|  |  |  |
| --- | --- | --- |
| Home Health, Inc.  Financial Ratios  Ratio 2002 2003 | | |
| **Current ratio** | 3.25 | 3.00 |
| **Quick ratio** | 2.50 | 2.20 |
| **Inventory turnover** | 12.80 | 10.30 |
| **Average collection period** | 42 days | 31 days |
| **Total asset turnover** | 1.40 | 2.00 |
| **Debt ratio** | 0.45 | 0.62 |
| **Times interest earned ratio** | 4.00 | 3.85 |
| **Gross profit margin** | 68% | 65% |
| **Operating profit margin** | 14% | 16% |
| **Net profit margin** | 8.3% | 8.1% |
| **Return on total assets** | 11.6% | 16.2% |
| **Return on common equity** | 21.1% | 42.6% |
| **Price/earnings ratio** | 10.7 | 9.8 |
| **Market/book ratio** | 1.40 | 1.25 |

**Requirements:**

**a.** In order to focus on the degree of change, calculate the year-to-year proportional change by subtracting the year 2002 ratio from the year 2003 ratio, then dividing the difference by the year 2002 ratio. Multiply the result by 100. Preserve the positive or negative sign. The result is the percentage change in the ratio from 2002 to 2003. Calculate the proportional change for the ratios shown here.

**b.** For any ratio that shows a year-to-year difference of 10% or more, state whether the difference is in the company’s favor or not.

**c.** For the most significant changes (25% or more), look at the other ratios and cite at least one other change that may have contributed to the change in the ratio that you are discussing.

**Answers.**

A.

**Home Health, Inc.**

**Financial Ratios**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **RATIO** | **2002** | **2003** | **DIFFERENCE** | **PROPORTIONAL DIFFERENCE** |
| Current ratio | 3.25 | 3.00 | 0.25 | 7.69% |
| Quick ratio | 2.50 | 2.20 | 0.30 | 12.00% |
| Inventory turnover | 12.80 | 10.30 | 2.50 | 19.53% |
| Average collection period | 42 days | 31 days | 11 days | 26.19% |
| Total asset turnover | 1.40 | 2.00 | -0.60 | -42.86% |
| Debt ratio | 0.45 | 0.62 | -0.17 | -37.78% |
| Times interest earned ratio | 4.00 | 3.85 | 0.15 | 3.75% |
| Gross profit margin | 68% | 65% | 3% | 4.41% |
| Operating profit margin | 14% | 16% | -2% | -14.29% |
| Net profit margin | 8.3% | 8.1% | 0.2% | 2.41% |
| Return on total assets | 11.6% | 16.2% | -4.6% | -39.65% |
| Return on common equity | 21.1% | 42.6% | -21.5% | -101.90% |
| Price/earnings ratio | 10.7 | 9.8 | 0.9 | 8.41% |
| Market/book ratio | 1.40 | 1.25 | 0.15 | 10.71% |

b.

|  |  |  |
| --- | --- | --- |
| **RATIO** | **PROPORTIONAL DIFFERENCE** | **COMPANY’S FAVOR** |
| Quick ratio | 12.00% | Yes |
| Inventory turnover | 19.53% | No |
| Average collection period | 26.19% | Yes |
| Total asset turnover | -42.86% | Yes |
| Debt ratio | -37.78% | No |
| Operating profit margin | -14.29% | Yes |
| Return on total asset | -39.65% | Yes |
| Return on equity | -101.90% | Yes |
| Market/book ratio | 10.71% | Yes |

c. The most obvious relationship is associated with the increase in the return on equity value. The increase in this ratio is connected with the increase in the return on assets. The higher return on assets is partially attributed to the higher total asset turnover. The return on equity increase is also associated with the slightly higher level of debt as captured by the higher debt ratio.