Measures of financial stability.

The following company commenced operations on the 1st July 20X2. This new and adventurous company introduced an untried product onto the market place. A large advertising campaign was undertaken during the year of commencement and management felt confident.

You have been requested to review the following financial statements of the company after two years of operation.
## Balance Sheet as at 30 June

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>20,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>180,000</td>
<td>270,000</td>
</tr>
<tr>
<td>Inventory</td>
<td>160,000</td>
<td>225,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>360,000</td>
<td>555,000</td>
</tr>
<tr>
<td></td>
<td>20X4</td>
<td>20X3</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td><strong>Non-current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At Cost</td>
<td>400,000</td>
<td>750,000</td>
</tr>
<tr>
<td>Less Accumulated</td>
<td>100,000</td>
<td>105,000</td>
</tr>
<tr>
<td>Depreciation</td>
<td>300,000</td>
<td>645,000</td>
</tr>
<tr>
<td></td>
<td><strong>660,000</strong></td>
<td><strong>1,200,000</strong></td>
</tr>
<tr>
<td>Current liabilities</td>
<td>20X4</td>
<td>20X3</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>150,000</td>
<td>51,000</td>
</tr>
<tr>
<td>Income tax</td>
<td>50,000</td>
<td>165,000</td>
</tr>
<tr>
<td>Dividends (Provision)</td>
<td></td>
<td>9,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>200,000</td>
<td>225,000</td>
</tr>
<tr>
<td></td>
<td>20X4</td>
<td>20X3</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>Non-current liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debentures</td>
<td>-</td>
<td>225,000</td>
</tr>
<tr>
<td><strong>Capital &amp; Reserves</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shareholders funds</td>
<td>460,000</td>
<td>750,000</td>
</tr>
<tr>
<td></td>
<td>660,000</td>
<td>1,200,000</td>
</tr>
</tbody>
</table>
## Income Statements

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>900,000</td>
<td>1,950,000</td>
</tr>
<tr>
<td>Less COGS</td>
<td>600,000</td>
<td>1,200,000</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>300,000</td>
<td>750,000</td>
</tr>
<tr>
<td>Expenses</td>
<td>20X4</td>
<td>20X3</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Administration</td>
<td>100,000</td>
<td>150,000</td>
</tr>
<tr>
<td>Selling &amp; distribution</td>
<td>40,000</td>
<td>150,000</td>
</tr>
<tr>
<td>Miscellaneous expenses</td>
<td>60,000</td>
<td>120,000</td>
</tr>
<tr>
<td><strong>Net profit before tax</strong></td>
<td>100,000</td>
<td>330,000</td>
</tr>
<tr>
<td><strong>Tax</strong></td>
<td>50,000</td>
<td>165,000</td>
</tr>
<tr>
<td><strong>Net profit after tax</strong></td>
<td>50,000</td>
<td>165,000</td>
</tr>
</tbody>
</table>
Working capital management.

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current liabilities</td>
<td>360/200=1.8</td>
<td>555/225=2.5</td>
</tr>
</tbody>
</table>

Measures ability to pay debts in the short term.
Quick ratio

Current assets less Inventory
Current liabilities less overdraft \[ \frac{200}{200} = 1 \quad \frac{330}{225} = 1.5 \]

*Measures ability to pay urgent liabilities.*
By putting together a comparison table, using all the ratios, turnovers and working capital calculations shown in this topic and the previous topic, a clear picture of the profitability, liquidity and efficiency of the business is available.
1. **Return on investment or rate of return on total assets.**

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net profit before interest and taxation x 100</td>
<td>$100,000</td>
<td>$330,000</td>
</tr>
<tr>
<td>Total average assets</td>
<td>$930,000 x100</td>
<td>$1,200,000 x100</td>
</tr>
<tr>
<td></td>
<td>10.75%</td>
<td>27.5%</td>
</tr>
</tbody>
</table>
2. **Net profit margin (Ratio).**

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net profit before interest and taxation x 100</td>
<td>$100,000</td>
<td>$330,000</td>
</tr>
<tr>
<td>Net sales</td>
<td>$900,000</td>
<td>$1,950,000</td>
</tr>
<tr>
<td></td>
<td>11.11%</td>
<td>16.92%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross profit</td>
<td>$300,000</td>
<td>$750,000</td>
</tr>
<tr>
<td>(x 100)</td>
<td>$900,000x100</td>
<td>$1,950,000x100</td>
</tr>
<tr>
<td>Net Sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>33.33%</td>
<td>38.46%</td>
</tr>
</tbody>
</table>
4. **Asset turnover. (Times)**

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>$900,000</td>
<td>$1,950,000</td>
</tr>
<tr>
<td>Total average assets</td>
<td>$930,000</td>
<td>$1,200,000</td>
</tr>
</tbody>
</table>

.97 Times    1.6 times
## 5. Current ratio

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Assets</td>
<td>$360,000</td>
<td>$555,000</td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>$200,000</td>
<td>$225,000</td>
</tr>
</tbody>
</table>

Current Ratio: 1.8 (20X4) vs. 2.5 (20X3)
## 6. Quick ratio

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Assets less inventory</td>
<td>$200,000</td>
<td>$330,000</td>
</tr>
<tr>
<td>Current Liabilities less bank overdraft</td>
<td>$200,000</td>
<td>$225,000</td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1.5</td>
</tr>
</tbody>
</table>
7. Inventory turnover. (Calculated in days)

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Inventory x 365</td>
<td>$192,500</td>
<td>$225,000</td>
</tr>
<tr>
<td>COGS</td>
<td>$600,000 x 365</td>
<td>$1,200,000 x 365</td>
</tr>
</tbody>
</table>

117 days 68 days
8. Accounts receivable turnover. (Calculated in days)

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average accounts receivable x 365</td>
<td>$225,000</td>
<td>$270,000</td>
</tr>
<tr>
<td>Credit Sales</td>
<td>$900,000 x 365</td>
<td>$1,950,000 x 365</td>
</tr>
<tr>
<td></td>
<td>91 days</td>
<td>50 days</td>
</tr>
</tbody>
</table>
9. **Accounts payable turnover. (Calculated in days)**

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average accounts payable x 365</td>
<td>$100,500</td>
<td>$51,000</td>
</tr>
<tr>
<td>Credit purchases</td>
<td>$535,000 x 365</td>
<td>$1,425,000 x 365</td>
</tr>
<tr>
<td></td>
<td>69 days</td>
<td>13 days</td>
</tr>
</tbody>
</table>
Note: The Cost of Goods sold account needs to be reconstructed to find purchases.

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory at start of year</td>
<td>225,000</td>
<td>Nil</td>
</tr>
<tr>
<td>Plus purchases</td>
<td><strong>535,000</strong></td>
<td><strong>$1,425,000</strong></td>
</tr>
<tr>
<td>=</td>
<td><strong>$760,000</strong></td>
<td><strong>$1,425,000</strong></td>
</tr>
<tr>
<td>Less: Inventory at end of year</td>
<td>$160,000</td>
<td>$ 225,000</td>
</tr>
<tr>
<td>Cost of Goods Sold</td>
<td><strong>$600,000</strong></td>
<td><strong>$1,200,000</strong></td>
</tr>
</tbody>
</table>
10. Operating cycle – in days

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory turnover</td>
<td>117 days</td>
<td>68 days</td>
</tr>
<tr>
<td>Plus Accounts receivable turnover</td>
<td>91 days</td>
<td>50 days</td>
</tr>
<tr>
<td>= Operating cycle</td>
<td>208 days</td>
<td>118 days</td>
</tr>
</tbody>
</table>
## Summary of the above calculations

<table>
<thead>
<tr>
<th>Metric</th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on investment</td>
<td>10.75%</td>
<td>27.5%</td>
</tr>
<tr>
<td>Net profit ratio</td>
<td>11.11%</td>
<td>16.92%</td>
</tr>
<tr>
<td>Gross profit ratio</td>
<td>33.33%</td>
<td>38.46%</td>
</tr>
<tr>
<td>Current ratio</td>
<td>1.8</td>
<td>2.5</td>
</tr>
<tr>
<td>Quick ratio</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Asset turnover</td>
<td>.97 times</td>
<td>1.6 times</td>
</tr>
<tr>
<td>Inventory turnover</td>
<td>117 days</td>
<td>68 days</td>
</tr>
<tr>
<td>Accounts receivable turnover</td>
<td>91 days</td>
<td>50 days</td>
</tr>
<tr>
<td>Operating cycle</td>
<td>208 days</td>
<td>118 days</td>
</tr>
<tr>
<td>Accounts payable turnover</td>
<td>69 days</td>
<td>13 days</td>
</tr>
</tbody>
</table>
Questions to consider

Has profitability improved?
Has the return on assets increased or decreased?
Have the gross profit margins and net profit margins increased or decreased?
Have the operating expenses of the business increased or decreased?
Has the cash position improved?
Is there a decrease or increase in the operating cycle?
Consider the inventory turnover.
Are accounts receivable being managed better?
Is the business meeting its liabilities in a timely manner?
Has the current ratio and quick ratio improved?