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User Guide

Financial/Accounting Analysis Ratios Excel Calculator

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Financial/Accounting Analysis Ratios Excel Calculator

Financial Analysis Ratios aka Accounting Analysis Ratios or Business Analysis Ratios is a useful tool to deploy for ongoing monitoring and control of the business.

Business needs to closely monitor its finances and performance to ensure that it is generating adequate return of the shareholders and that it is sufficient cash liquidity to meet its costs and continue to operation successfully

Ratio Analysis allows accounts to be interpreted for the benefit of interested parties. Typical ratios used include

The Financial Analysis Ratios Calculator is an Excel-based spreadsheet that calculates the following ratios for four different periods:

Profitability

Gross Profit Margin

$$\frac{\text{Gross Profit}}{\text{Sales}}$$

Operating Profit Margin

$$\frac{\text{Operating Profit}}{\text{Sales}}$$

Net Profit Margin

$$\frac{\text{Net Profit before Tax}}{\text{Sales}}$$

Return on Shareholders Funds

$$\frac{\text{Net Profit after Tax}}{\text{Shareholders Funds}}$$

Return on Capital Employed

$$\frac{\text{Net Profit after Tax}}{\text{Capital Employed}}$$

Liquidity

Current Ratio/Working Capital Ratio

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Quick Ratio/Acid Test Ratio

$$\frac{\text{Current Assets}-\text{Inventories}}{\text{Current Liabilities}}$$

Times Interest Earned

$$\frac{\text{Operating Profit}}{\text{Interest Paid}}$$

Debt Ratio

$$\frac{\text{Total Liabilities}}{\text{Total Assets}}$$

Debt to Equity

$$\frac{\text{Long term Debt}}$$

Shareholders Funds

Activity Ratios

Average Debtor days

$$\frac{\text{Accounts Receivable}}{\text{Sales Revenue}/360}$$

Inventory Turnover

$$\frac{\text{Cost of Goods Sold}}{\text{Closing Inventory}}$$

Fixed Asset Turnover

$$\frac{\text{Sales Revenue}}{\text{Fixed assets}}$$

Total Asset Turnover

$$\frac{\text{Sales Revenue}}{\text{Total Assets}}$$

Once the P&L and balance sheets have been prepared for the four periods the Financial Ratios are automatically calculated. (Figure 1 below)

Once ratios are available, comparisons can be made between different financial periods and trends over the four periods identified and analysed.

Financial Analysis Ratios

Period Ending	31-Dec-2005	31-Dec-2006	31-Dec-2007	31-Dec-2008
1. Profitability				
Gross Profit Margin				
<u>Gross Profit</u> Sales	400 1000 % = 40%	450 1250 % = 36%	500 1500 % = 33%	500 2000 % = 25%
Operating Profit Margin				
<u>Operating Profit</u> Sales	100 1000 % = 10%	115 1250 % = 9%	140 1500 % = 9%	145 2000 % = 7%
Net Profit Margin				
<u>Net Profit before Tax</u> Sales	50 1000 % = 5%	60 1250 % = 5%	90 1500 % = 6%	80 2000 % = 4%
Return on Shareholders Funds				
<u>Net Profit after Tax</u> Shareholders Funds	40 70 % = 57%	45 66 % = 68%	72 84 % = 86%	59 177 % = 33%
Return on Capital Employed				
<u>Net Profit after Tax</u> Capital Employed	40 295 % = 14%	45 306 % = 15%	72 284 % = 25%	59 327 % = 18%
2. Liquidity				
Current Ratio/Working Capital Ratio				
<u>Current Assets</u> Current Liabilities	140 65 = 2.2	220 100 = 2.2	250 135 = 1.9	350 175 = 2.0
Quick Ratio/Acid Test Ratio				
<u>Current Assets-Inventories</u> Current Liabilities	100 65 = 1.5	170 100 = 1.7	180 135 = 1.4	275 175 = 1.6
Times Interest Earned				
<u>Operating Profit</u> Interest Paid	100 50 % = 2.0	115 55 % = 2.1	140 50 % = 2.8	145 65 % = 2.2
Debt Ratio				
<u>Total Liabilities</u> Total Assets	290 343 = 0.8	340 406 = 0.8	335 419 = 0.8	325 502 = 0.6
Debt to Equity				
Long term Debt Shareholders Funds	225 70 = 3.2	240 66 = 3.6	200 84 = 2.4	150 177 = 0.8
3. Activity Ratios				
Average Debtor days				
<u>Accounts Receivable</u> Sales Revenue/360	60 2.8 = 21.6 Days	80 3.5 = 23.0 Days	100 4.2 = 24.0 Days	120 5.6 = 21.6 Days
Inventory Turnover				
<u>Cost of Goods Sold</u> Closing Inventory	600 40 = 15	800 50 = 16	1000 60 = 17	1500 75 = 20
Fixed Asset Turnover				
<u>Sales Revenue</u> Fixed assets	1000 203 % = 4.9	1250 186 % = 6.7	1500 169 % = 8.9	2000 152 % = 13.2
Total Asset Turnover				
<u>Sales Revenue</u> Total Assets	1000 343 = 2.9	1250 406 = 3.1	1500 419 = 3.6	2000 502 = 4.0

Figure 1

User Instructions

The workbook consists of three worksheets:

1. P &L Statements
2. Balance Sheets
3. Financial Ratios

1. Enter the “Period Ending Dates” in cells B3, C3, D3 and E3 in the Balance sheets worksheet for the four periods to be analysed. These dates automatically populate all the relevant date fields.

2. Enter the relevant data to complete balance sheets for each of the four periods.

3. Complete the P&L statements for each of the four periods.

The Financial Ratios for each of the four periods are automatically calculated and the Financial Ratios sheet is updated.

The ratios are calculated using the following formulae:

Profitability

Gross Profit Margin

$$\frac{\text{Gross Profit}}{\text{Sales}}$$

Operating Profit Margin

$$\frac{\text{Operating Profit}}{\text{Sales}}$$

Net Profit Margin

$$\frac{\text{Net Profit before Tax}}{\text{Sales}}$$

Return on Shareholders Funds

$$\frac{\text{Net Profit after Tax}}{\text{Shareholders Funds}}$$

Return on Capital Employed

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Liquidity

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$$\frac{\text{Current Assets-Inventories}}{\text{Current Liabilities}}$$

Times Interest Earned

$$\frac{\text{Operating Profit}}{\text{Interest Paid}}$$

Debt Ratio

$$\frac{\text{Total Liabilities}}{\text{Total Assets}}$$

Debt to Equity

$$\frac{\text{Long term Debt}}{\text{Shareholders Funds}}$$

Activity Ratios**Average Debtor days**

$$\frac{\text{Accounts Receivable}}{\text{Sales Revenue}/360}$$

Inventory Turnover

$$\frac{\text{Cost of Goods Sold}}{\text{Closing Inventory}}$$

Fixed Asset Turnover

$$\frac{\text{Sales Revenue}}{\text{Fixed assets}}$$

Total Asset Turnover

$$\frac{\text{Sales Revenue}}{\text{Total Assets}}$$