

# Analysis of financial ratios of continental tire ag research proposal examples

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



## Summary

The paper is devoted to the analysis of financial ratios of Continental Tire AG and its two competitors in the world market – Michelin and Goodyear. Full ratio analyses include Liquidity, Leverage, Profitability, and Management Ratios analyses which will be represented in this research proposal.

Companies' balance sheets and income statements as of 2011 will be analyzed for the purposes of this paper.

Input data for analyses of the three companies is included in Appendix 1, full ratio analyses is in Appendix 2. The first group of the ratios belongs to the liquidity financial analysis. There were three ratios (current, quick and net working capital) taken for the purposes of financial liquidity analysis.

Leverage ratios analyses are represented by the debt to equity ratios and interest coverage ratio. Profitability analyses include gross margin ratio and net profit margin ratio. Finally, management ratios analyses are represented by the inventory turnover, accounts receivable turnover, return on assets and return on investment ratios. All of the ratios calculated were compared to each other with appropriate conclusions made.

### 1. Liquidity Ratios Calculation and Analysis

#### 1. 1 Current Ratios

### **Current ratio is calculated using the following formula:**

Current Ratio = Current Assets/Current Liabilities.

Current ratio is the common measure of general liquidity of the company in short-term period helping to estimate current financial position of the

company (Brigham & Houston, 2009). In accordance with the results obtained, Michelin Company has the highest current ratio while Continental AG has the lowest ratio. However, all of the ratios are acceptable because their measure lies between 2 and 1. A Continental AG current ratio is critical because it is the closest to 1. The company's management should pay attention to the fact and take steps to paying out some debts, convert non-current assets into current assets, increase current assets at the expense of equity, put profit back to business or increase current assets from loans or borrowings with a long-term maturity.

### 1. 2 Quick Ratios

**The following formula is used for the computation of quick ratio:**

$$\text{Quick Ratio} = (\text{Current Assets} - \text{Inventories}) / \text{Current Liabilities}$$

Quick ratio indicates the ability of the company to cover its liabilities without selling out its inventory. It shows whether the company is able to cover its short-term liabilities at the expense of its short-term assets. Continental Ag must be treated cautiously by the investors since its quick ratio is somewhat lower than 1 that indicated that its urgent expenditures cannot be covered by the assets (Walch, 2006). Quick ratios of Michelin and Goodyear are comparatively strong even if compared to the average industry level – 0.97 (The Bradow Company, 2010). This ratio does not depend on inventory and shows if the amount of accounts receivable lags behind the schedule for covering current liabilities.

### 1. 3 Net Working Capital Turnover Ratio

In accordance with Brigham & Houston (2009), net working capital turnover ratio is calculated with the help of the following formula:

Net Working Capital Turnover = Sales/Net Working Capital;

Net Working Capital = Total Current Assets – Total Current Liabilities.

Net working capital together with current and quick ratios is often used for measuring cash flow and it must possess positive value. If the company relies on creditor money as a source of financing assets, than high liquidity ratios should be expected. The higher liquidity ratios, the better total company liquidity.

Working capital turnover indicated the efficiency of using working capital.

Continental AG has the highest working capital turnover among three companies and its value is significantly higher than those of Michelin and Goodyear. It means that working capital is utilized more efficiently by the Continental AG. On the other hand, a very high working capital turnover ratio means shortage of sufficient working capital that is a bad sign.

## 2. Leverage (Solvency) Ratios Calculation and Analysis

### 2. 1 Debt to Equity Ratio

**The following formula is used for computation of debt to equity ratio:**

Debt to Equity Ratio = Total Liabilities/Total Shareholder Equity.

This ratio indicated the extent to which the business relies on debt financing.

This analysis showed that European companies (Continental AG and Michelin) have close values of the measure while Goodyear has much higher

debt to equity ratio. The higher the ratio the more risky creditors are exposed in the business.

## 2. 2 Interest Coverage Ratio

### **Interest coverage ratio is calculated in the following way:**

Interest Coverage Ratio = Operating Income/Interest Expense;

Operating Income = Gross Income - Operating expenses - Depreciation.

The best value of interest coverage ratio among others the Michelin Company has. This ratio shows the ability of the companies to provide interest payments on outstanding debt (Brigham and Houston, 2009). Continental AG ratio is negative and it shows that the Company does not have a formidable ability to cover interest payments.

## 3. Profitability Ratios Calculation and Analysis

### 3. 1 Gross Margin Ratios

### **The following formulae are used for computation of this ratio:**

Gross Margin Ratio = Gross Profit/Net Sales;

Gross Profit = Net Sales - Cost of Goods Sold.

Gross margin ratio is higher of Continental AG is higher than that of the Goodyear Company, but lower than that of Michelin. This ratio revealed that Continental AG business is weaker than Michelin's, but stronger than Goodyear's (U. S. Securities and Exchange Commission, n. d.).

### 3. 2 Net Profit Margin Ratios

**The formula for the calculation of this ratio is:**

Net Profit Margin Ratio = Net Profit before Tax/Net Sales.

Net profit margin ratio of Continental does in line with the previous ratio showing relative financial health of the company (Appendix 2).

#### 4. Management Ratios

##### 4. 1 Inventory Turnover Ratios

**The formula for the calculation of inventory turnover ratio is as follows:**

Inventory Turnover Ratio = Net Sales/Average Inventory at Cost.

The value of inventory turnover is the highest among the companies analyzed. It is higher than the value of this ration in the industry - 10. 81 (The Bradow Company, 2010). It means that the management of inventory is well-organized.

##### 4. 2 Accounts Receivable Turnover Ratio

**For the computation of account receivable turnover the following formula is used:**

Account Receivable Turnover = Net Sales/Average Account Receivable.

The value obtained for receivables turnover of Continental AG is somewhat lower than that of Michelin and significantly lower than that of Goodyear that could mean receivables are converted into money too slow.

##### 4. 3 Return on Assets Ratio (ROA)

**Return on assets ratio is computed in the following way:**

Return on Assets = Net Profit before Tax/Total Assets.

Return on Assets Ratio shows profitability of the company. As this value is the same with Michelin company value and is much higher than that of Goodyear, it can be considered normal. It means that the company effectively employs assets for profit generation.

#### 4. 4 Return on Investment Ratio (ROI)

**Return on investment is calculated as follows:**

Return on Investment = Net Profit before Tax/Shareholder Equity.

Return on investment of Continental AG is higher than that of Michelin and more than twice lower than that of Goodyear. This measure is considered as the most important since it shows the percentage of return on invested capital. The general meaning of this ratio is that it shows whether leading this kind of business is worthwhile.

#### 5. Five Questions to Ask the Management of the Continental AG

What concrete measure are you going to undertake to improve current ratio?

How are you going to check if the company's working capital is sufficiently used and there is no a lack of this capital?

Do not you think that interest coverage ratio is too low and it needs to be improved?

Do not you think that low value of quick ratio may negatively influence potential investors?

What is your opinion regarding increase a share of debt financing rather than financing business through equity?

## 6. Comparison of Risk Analysis of the Companies

6. 1 Quick ratio is quite low in all three companies that may identify low liquidity. This is the best measure of liquidity and it worth to pay attention. There is a risk for all companies no to meet current obligations if there are no any earnings from sales.

6. 2 The risks are different for Continental and its competitors in working capital and interest coverage management. Michelin and Goodyear have normal net working capital turnover while Continental AG possibly has inefficient working capital management.

Interest coverage ratio is satisfactory for the company's competitors, but is negative for Continental AG that means that interest payments are not covered by operating income. It means that possibly the company is exposed to the risk of becoming bankrupt if the situation does not change in the nearest time.

6. 3 Currently the company emphasizes on the reduction of indebtedness and this is the right strategy because cutting cost may improve profitability. Profits could be a good source of R&D investments that was a long-term strategy of the company. The management of the company also pays attention to the leverage ratio improvement.

6. 4 The company should take steps to improve liquidity of the company to become more attractive to the investors. Current liabilities should be reduced to achieve necessary balance between current assets and current



liabilities. Particular attention should be paid to the sufficient use of working capital. Management of accounts receivable should be improved because it is the lowest now among the three companies. The utilization of investment resources also may be improved. Inventory turnover is comparatively but it could be a bad sign when inventory turns too fast.

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