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Efficiency Ratio

Return on Capital Employed & Return on Equity

Equity vs. Capital Employed

Balance Sheet - Tata Motors Limited

(₹ Cr)

	Consolidated	
	FY 2011	FY 2012
Share Capital	637.71	634.75
Reserves & Surplus	18,533.76	32,515.18
Net worth (Shareholders Funds)	**19,171.47**	**33,149.93**
Minority Interest	246.60	307.13
Long term borrowings	17,256.00	27,962.48
Deferred tax liabilities (net)	2,096.13	2,165.07
Current liabilities	55,125.62	73,268.07
Other long term liabilities and provisions	7,118.36	8,529.96
Total Liabilities	**1,01,014.18**	**1,45,382.64**

(₹ Cr)

	Consolidated	
	FY2011	FY2012
Fixed Assets	43,221.05	56,212.50
Noncurrent Investments	1,336.61	1,391.54
Current assets	42,088.82	64,461.47
Long term advances and other noncurrent assets	10,150.57	14,684.06
Deferred tax assets (net)	632.34	4,539.33
Goodwill on consolidation (net)	3,584.79	4,093.74
Total assets	**1,01,014.18**	**1,45,382.64**

Return on Capital Employed (**ROCE**) and Return on Equity (**ROE**) or Return on Net Worth (**RONW**) are both used to measure the profitability of a company based on the funds with which the company conducts its business.

Formulas:

Operating Profit

$$\text{RETURN ON CAPITAL EMPLOYED} = \frac{\overbrace{\text{EARNINGS BEFORE OTHER INCOME, INTEREST, TAX, DEPRECIATION AND AMORTISATION}}}{\text{CAPITAL EMPLOYED}} \times 100$$

ROCE measures a company's overall profitability by calculating the return generated on the total capital invested in the business (i.e. equity + debt).

$$\text{RETURN ON EQUITY (ROE)} = \frac{\text{PROFIT AFTER TAX}}{\text{NET WORTH}} \times 100$$

ROE measures the return attributable only to the shareholders.

A company may operate with a very healthy ROCE but it may not add much value to a shareholder if most of the income generated is used up in servicing the company's debt (i.e. interest charges).

Example:

Company A operates with a debt of Rs. 800 and total equity of Rs. 200 while Company B operates with a debt of Rs. 200 and total equity of Rs. 800

Even though, Company B reports a higher operating profit and profit after tax figures, the shareholders of company A will earn a higher return on their investment. This is because company A operates with a smaller equity base.

	Company A	Company B
Debt	800	200
Equity	200	800
TOTAL CAPITAL	**1000**	**1000**
OPERATING PROFIT	**200**	**300**
Interest on Debt @ 10%	80	20
Profit before tax	120	280
Tax	36	84
PROFIT AFTER TAX	**84**	**196**
ROE	**42%**	**24.5%**
ROCE	**20%**	**30%**

Points to Note:

Operating Profit

$$\text{RETURN ON CAPITAL EMPLOYED} = \frac{\text{EARNINGS BEFORE OTHER INCOME, INTEREST, TAX, DEPRECIATION AND AMORTISATION}}{\text{CAPITAL EMPLOYED}} \times 100$$

- When calculating the ROCE on a consolidated basis, the denominator will denote the **total capital** with which the company operates i.e. it will be the sum of the share capital, reserves & surplus, minority interest and the long term debt. This is because operating profit in the numerator represents the profit generated by ***'all the constituents'*** of the company including minorities.

$$\text{RETURN ON EQUITY (ROE)} = \frac{\text{PROFIT AFTER TAX}}{\text{NET WORTH}} \times 100$$

- When calculating the ROE on a consolidated basis, the denominator will be the **net worth** (i.e. share capital + reserves & surplus). This is because the ROE measures the return attributable only to the shareholders of the parent company and in the numerator we take **profit after tax and after minority interest and share of associates.**

(₹ Cr)

	Consolidated	
	FY 2011	**FY 2012**
Total Income from Operations	1,23,133.3	1,65,654.5
Expenses	1,06,315.8	1,43,343.3
Earnings Before Other Income, Interest, Tax, Depreciation and Amortisation	**16,817.48**	**22,311.24**
Depreciation	4,655.51	5,625.38
Finance Costs	2,045.42	2,982.22
Other income	89.61	661.77
Exceptional items	(231.01)	831.54
PBT	**10,437.17**	**13,533.87**
Tax	1,216.38	(40.04)
PAT (before Minority Interest and share of Associates)	**9,220.79**	**13,573.91**
Profit attributable to Minority Interest	48.52	82.33
Share of profit / (loss) of Associates	(101.35)	(24.92)
Profit / (Loss) for the year	**9,273.62**	**13,516.50**

(₹ Cr)

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