Return on Capital Employed-A Tool for Analyzing Profitability of Companies

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Abstract

Return on Capital Employed (ROCE) is a measuring tool that measures the efficiency and profitability of capital investments undertaken by a corporation. Return on Capital Employed ratio also indicates whether the company is earning sufficient revenues and profits in order to make the best use of its capital assets. High ROCE is a validation of a company's competitive advantage. It indicates that the company has something special to offer - products or services that command a high return. It usually follows that margins are above average. The trend of both capital employed and margins is, therefore, of considerable importance. Comparison of the ROCE of a company with others in its sector is a far more pertinent measure than comparison with the market as a whole. Companies with low returns are always suspecting because they are in danger of becoming loss-making if trading conditions deteriorate. Companies with exceptionally high returns may invite competition for their products or services, unless they are fully protected by patents or in some other way.

The article analyses the return on capital employed of 30 sensex companies from various sectors. The data is collected regarding the total assets and operating profit of 30 sensex companies. The present paper analyses the return on capital employed as a technique of profitability. The paper examines the return on capital employed of 30 sensex companies. The paper study highlights the uses and drawbacks of return on capital employed as a technique for investors. The findings shows that Consumer Goods, IT and Auto companies generally enjoy high return on capital employed while banking and finance companies have lower return on capital employed

Key Words: Profitability, return on capital employed, efficiency, total assets.

Introduction

Return on capital employed is a measure of returns that a company is generating from the capital

employed. ROCE indicates the efficiency and profit generating ability of a company's capital investments. Return on Capital Employed (ROCE) is a measuring tool that measures the efficiency and profitability of capital investments undertaken by a corporation. Return on Capital Employed ratio also indicates whether the company is earning sufficient revenues and profits in order to make the best use of its capital assets. It is expressed in the form of a percentage, and the higher the percentage, the better.

Return on Capital Employed = (EBIT)/ (Capital Employed)

Where,

EBIT refers to Earning or Operating Profit before Interest and Taxes.

Capital employed is arrived at by subtracting Current Liabilities from Total Assets.

EBIT is calculated by taking sales revenues less operating expenses and adding back any non-operating income generated by the business. Operating expenses usually include the cost of goods sold, cost to sell goods, and general or administrative expenses used to generate revenues for the business.

Capital employed is the sum of ordinary and preference share capital plus reserves, debentures, loan stocks, all borrowings including obligations under finance leases, bank overdraft, minority interests and provisions. Deductions include investments in associated companies. The basic idea is to arrive at a final figure that will tell you how much money (whatever the source) is being employed in the operation of a business. The resultant figure is then compared with the operating profits before tax, exceptional items, interest, dividends payable and share of profits or losses of associated companies. The percentage this figure bears to adjusted capital employed gives investors a measure of the return the business can produce on the capital employed within it.

The return on capital employed denominator represents the total assets owned by a company minus current liabilities. Total assets include both the current and long-term assets listed on the company's balance sheet. Current assets typically include cash, marketable

securities, inventories and accounts receivable. Long-term assets usually include any property, plant and equipment owned by the company to produce consumer goods or services. Current liabilities represent any money owed by the company, payable in less than 12 months. These liabilities often include accounts payable, short-term deb3*-33999*3t, trade credit or short-term bonds payable.

Step 1: Subtract the operating expenses from the revenue to get the company's earnings before interest or tax (EBIT). As an example, take a company that has Rs.10000 in assets, Rs. 2,000 in liabilities, Rs. 5,000 in revenue and Rs. 3,000 in operating expenses. Subtracting operating expenses from revenue is Rs. 5,000 - Rs. 3,000 = Rs. 2,000. The EBIT for the example is Rs. 2,000.

Step 2: Subtract the value of liabilities from the value of all assets to get capital employed. Continuing the example: Assets - Liabilities = Rs. 10,000 - Rs. 2,000 = Rs. 8,000.

Step 3: Divide the EBIT by the result from Step 2 to get the ROCE. Completing the example: Rs. 2,000 / Rs. 8,000 = 0.25.

A Better Measurement

To be more precise, the true representation of the value of the resources employed in the operations of a firm in a given period can be found in the value of total operating costs for that period. To calculate the value of total operating costs for a period, we simply deduct the profit before tax (PBT) from the total turnover. Any result obtained from the measurement based on this new definition of resources (capital) employed will be known as the Enhanced Return on Capital Employed (EROCE). Thus, the formula for obtaining the Enhanced Return on Capital Employed is:

EROCE = Profit Before Tax / Total Operating Costs

i.e.

EROCE = PBT / (Turnover - PBT)

Where,

PBT = Profit Before Tax (Earnings Before Tax)

Significance

The enhanced return on capital employed measures the return or profit on each area expended by the firm for the financial period. This is the true measurement of the return on capital employed because the true capital employed by the business for the period is the amount expended on the period's operations excluding capital expenditure.

Review of the Literature

As currently defined, the return on capital employed (ROCE) is a measure of efficiency of management in the application or use of the organization's funds or resources in a given financial period. It is measured by comparing the profits made by the firm with the capital used in making the profit and set as a percentage or fraction (Egungwu, 2005).

Research Methodology

Research in common parlance refers to a search for knowledge. One can also define research as a scientific and systematic search for pertinent information on a specific topic. The present study has been undertaken to examine the issues addressed by means of return on capital employed.

The article analyses the return on capital employed of 30 sensex companies from various sectors. The data is collected regarding the total assets and operating profit of 30 sensex companies.

The present paper aims to achieve the following objectives:

- To analyze the return on capital employed as a technique of profitability
- To examine the return on capital employed of 30 sensex companies;
- To find out the uses and drawbacks of return on capital employed as a technique for investors

Features of ROCE

The main features of ROCE as an investment measure are as follows:-

1. High ROCE (in the region of 20% or more) is a validation of a company's competitive advantage. It indicates that the company has something special to offer - products or services that command a high return. It usually follows that margins are above average. The trend of both capital employed and margins is, therefore, of considerable importance.

2. Comparison of the ROCE of a company with others in its sector is a far more pertinent

measure than comparison with the market as a whole. Companies with low returns are always suspecting because they are in danger of becoming loss-making if trading conditions deteriorate. Companies with exceptionally high returns may invite competition for their products or services, unless they are fully protected by patents or in some other way.

3. The obvious attraction of a high ROCE is that a greater than average amount of profit can be ploughed back into the business for the advantage of shareholders. The plough-back is then employed again at the higher than average rate and helps to generate further growth in EPS. For this reason, a high ROCE is usually a common denominator of great growth stocks.

4. The ROCE of a company should always be compared with the current cost of borrowing. If the ROCE is significantly higher, further borrowing adds to EPS; if the ROCE is lower, further borrowing will reduce EPS

5. Companies with low ROCE are often the subject of changes in management control which, in turn, are frequently followed by a rights issue. The most acid test of new management is whether or not it is able to lift the return on capital employed.

What Does ROCE Say?

ROCE is a useful measurement for comparing the relative profitability of companies. But ROCE is also an efficiency measure of sorts; ROCE doesn't just gauge profitability as profit margin ratios do, it measures profitability after factoring in the amount of capital used. To understand the significance of factoring in employed capital, let's look an example, say Company. A makes a profit of Rs. 100 on sales of Rs. 1,000, and Company B makes Rs. 150 on Rs. 1,000 of sales. In terms of pure profitability, B, having a 15% profit margin, is far ahead of A, which has a 10% margin. However, let's say A employs Rs. 500 of capital and B Rs. 1,000. A has an ROCE of 20% [100/500] while B has an ROCE of only 15% [150/1,000]. The ROCE measurements show us that Company A makes better use of its capital. In other words, it is able to squeeze more earnings out of every rupee of capital it employs. A high ROCE indicates that a larger chunk of profits can be invested back into the company for the benefit of shareholders. The reinvested capital is employed again at a higher rate of return, which helps to produce higher EPS growth. A high ROCE is, therefore, a sign of a successful

growth company.

Some Guidelines for Analyzing ROCE

Consistency is a key factor of performance. In other words, investors should resist investing on the basis of only one year's ROCE. Take a look at how ROCE behaves over several years and follow the trend closely. A company that, year after year, earns a higher return on every rupee invested in the business is bound to have a higher market valuation than a company that burns up capital to generate profits. Be on the lookout for sudden changes; a decline in ROCE could signal the loss of competitive advantage because ROCE measures profitability in relation to invested capital, ROCE is important for capital intensive companies, or firms that require large upfront investments to start producing goods. Examples of capital-intensive companies are those in telecommunications, power utilities and heavy industries. ROCE has emerged as the undisputed measure of profitability for oil and gas companies, which also operate in a capital-intensive industry. In fact, there is often a strong correlation between ROCE and an oil company's share price performance.

Problems with ROCE

There are certain problems which arise while analyzing return on capital employed of various companies such as:

1. The interpretation of 'capital' can be many and varied. It may be gross capital employed or net capital employed or average capital employed.
2. Trading profit can be distorted by accounting policies and other unrelated expenses.
3. ROCE ratios use historical data. Historic data is not always a sound basis for future earnings.
4. The ROCE can vary due to short-term influences (e.g. recent poor historic results driven by one particularly unprofitable contract).
5. Investors & industry often do not carry out deep fact based comparative analysis with similar companies (e.g. often different accounting policies are ignored).
6. Investors & industry often find it difficult to get industry benchmark ROCE ratios (especially true for unquoted stock).
7. Investors & industry place too much emphasis on the ROCE ratio without carrying out

analysis of the supporting key profitability ratios.

Uses of ROCE

Return on capital employed (ROCE) helps the company and the investors in the following ways:

1. ROCE is used to show how much a company is losing for its liabilities or gaining for its assets. It is used to show how much a company is losing for its liabilities or gaining for its assets.
2. It is also used to compare the performance of two businesses and for assessing whether a business generates enough returns to pay for its cost of its capital. Thus, ROCE should always be higher than the rate at which the company is borrowing; otherwise any incremental borrowing will reduce shareholders' earnings. In other words, ROCE denotes the return that a business should generate for it to function.
3. ROCE is used to prove the value the business gains from its assets and liabilities, a business which owns lots of land but has little profit will have a smaller ROCE to a business which owns little land but makes the same profit.
4. It is basically used to show how much a business is gaining for its assets, or how much it is losing for its liabilities.
5. Some investors consider ROCE the primary measure of profitability since it compares the inputs (total capital invested into the company) with the outputs (profits generated by the company).
6. Industry and investors will possibly look at the relative size of the Return on Capital Employed ratio. This is because a high ROCE percentage that a company is profitable.

Return on Capital Employed of Sensex Companies

An analysis of return on capital employed of sensex companies (30 companies) is done in this paper. The data regarding the total assets and operating profit or Earning before Interest and Tax (EBIT) is taken from the annual accounts of 30 sensex companies for the year ending March 31, 2012.

S. No.	Name of the Company	Total Assets/ Capital Employed (Rs. In Crore)	EBIT (Rs. In Crore)	Return on Capital Employed (%)
Cement Sector	J P Associates	28,420.59	3,439.65	12.10
Oil Sector	Reliance Industries Ltd.	2,21,596.00	33,831.00	15.27
	ONGC Ltd.	1,17,456.73	36,570.24	31.13
Finance and Banking	ICICI Bank Ltd.	1,81,216.62	8,778.41	4.84
	HDFC Bank Ltd.	84,119.87	8,850.41	10.52
	HDFC Ltd.	1,15,001.56	16,716.27	14.53
	State Bank of India	2,89,862.08	19,422.68	6.70
IT	Wipro	29,595.70	6,219.70	21.01
	TCS	24,952.86	11,385.72	45.62
	Infosys Technologies	29,757.00	10,063.00	33.81
Capital Goods	BHEL	25,496.64	9,803.13	38.44
	L & T Ltd	35,097.65	7,807.78	22.24
Telecom Sector	Bharti Airtel	63,556.90	13,724.50	21.59
	Reliance Comm	73,068.00	3,434.00	4.69
Consumer Goods	ITC Ltd.	18,817.93	8,921.81	47.41
	HUL	3,512.26	3,325.20	94.67
Pharma Sector	CIPLA	7,553.51	1,597.72	21.15
Auto Sector	M & M Ltd.	15,268.00	3,769.79	24.69
	Tata Motors Ltd.	30,355.54	4,177.55	13.76
	Maruti Suzuki India Ltd.	16,265.70	2,864.50	17.61
	Hero Motocorp Ltd.	5,284.68	3,648.02	69.03

	Bajaj Auto	6,138.55	3,735.91	60.85
Real Estate, Construction & Infra - structure Sector	DLF Ltd.	26,471.68	2,109.98	7.97
	Reliance Infra Ltd.	27,688.61	2,624.95	9.48
Power Sector	NTPC Ltd.	1,20,629.50	13,737.50	11.39
	Tata Power Co. Ltd.	20,954.12	1,791.57	8.55
Steel & Metal Sector	Jindal Steel & Power Ltd.	25,217.87	4,062.49	16.11
	Tata Steel Ltd.	75,910.28	12,012.49	15.82
	Hindalco Industries Ltd	46,604.38	2,996.38	6.43
	Sterlite Industries	30,056.02	1,116.81	3.71

Source: Annual Report of above mentioned companies.

Total assets (Capital Employed) have been computed by subtracting current liabilities from the total of fixed assets and current assets.

Capital Employed (Total Assets) = Fixed Assets + Current Assets - Current Liabilities.

EBIT or operating profit is taken from the Profit and Loss Account of the above companies.

Findings from the Above Data Analysis The findings from the above analysis show that:

1) In case of oil sector companies covered under sensex ROCE in case of ONGC is double than the Reliance Industries Ltd (RIL) because fixed assets of RIL are more and EBIT is less as compared to fixed assets and EBIT of ONGC .

2) In case of banking and finance companies HDFC Ltd. commands a high ROCE because its capital employed is very less and its operating profit is high. The ROCE of ICICI Bank is lowest because its capital employed is very high among private sector banks while its operating profit is nearly similar to other banks.

3) In case of consumer goods sectors HUL occupies the highest position in ROCE because of its low capital employed which is due the more current liabilities than current assets i.e. its

net working capital is negative.

4) In auto sector, The ROCE of Hero Motocorp Ltd. is highest as compared to M & M Ltd, Maruti Suzuki, Bajaj Auto, Tata Motors because the capital employed of Hero Motocorp Ltd. is minimum as compared to other auto companies.

5) The least ROCE is of Sterlite Industries which is just 3.79% which is above previous year's 1.9% which is due to very low operating profit as compared to its capital employed. IT companies enjoy good ROCE because of low capital employed and high operating profit.

6) Number of companies whose ROCE is between 1 per cent to 10 percent is 9

7) Number of companies whose ROCE is between 11 per cent to 20 percent is 8

8) Number of companies whose ROCE is between 21 per cent to 30 percent is 5

9) Number of companies whose ROCE is between 31 per cent to 40 percent is 3

10) Number of companies whose ROCE is between 41 per cent to 50 percent is 2

11) Number of companies whose ROCE is above 50 percent is 3

12) Among the 30 sensex companies HUL is at the top with 94.67 percent with Hero Motocorp Ltd. at the second with 69.03 percent and Bajaj Auto at the third place with 60.85 percent return on capital employed.

13) Companies having minimum return on capital employed includes Sterlite Industries with 3.71 percent, Hindalco with 6.43 percent, DLF with 7.97 percent, ICICI with 4.84 percent and Reliance Communications with 4.69 percent

14) From the above analysis it is seen that Consumer Goods, IT and Auto companies generally enjoy high return on capital employed while banking and finance companies have lower return on capital employed.

Karl Pearson's Coefficient of Correlation

Karl Pearson's Coefficient of Correlation is calculated between return on capital employed and capital employed of 30 sensex companies for the year 20011-2012 which comes to -0.53 which indicates low degree negative correlation because when capital employed increases return on capital employed decreases. Correlation between ROCE and Capital Employed r = -0.53. Karl

Pearson's Coefficient of Correlation is also calculated between return on capital employed and operating profit (EBIT) of 30 sensex companies for the year 2011-2012 which comes to -0.04 which indicates very very low correlation between ROCE and EBIT. As a rule if EBIT increases ROCE should increase but if simultaneously capital employed also increases ROCE remains the same. Correlation between ROCE and EBIT r = -0.04

Drawbacks of Return on Capital Employed

Return on capital employed is a powerful tool for investors to analyze the company from the point of view of investment. How it suffers from several drawbacks. The important ones are:

1) The main drawback of ROCE is that it measures return against the book value of assets in the business. As these are depreciated the ROCE will increase even though cash flow has remained the same. Thus, older businesses with depreciated assets will tend to have higher ROCE than newer, possibly better businesses. In addition, while cash flow is affected by inflation, the book value of assets is not. Consequently revenues increase with inflation while capital employed generally does not (as the book value of assets is not affected by inflation).

2) The true measurement of efficiency in the use of capital resources cannot be done using capital employed as defined in a company's balance sheet. This is because the balance sheet capital employed is a static measure of capital employed at a date and not for the entire period. Hence, the result to be obtained from such measurement would invariably be influenced by the static nature of the value of capital employed as at that date.

3) While ROCE is a good measure of profitability, it may not provide an accurate reflection of performance for companies that have large cash reserves, which could be funds raised from a recent equity issue. Cash reserves are counted as part of capital employed even though these reserves may not yet be employed. As such, this inclusion of the cash reserves can actually overstate capital and reduce ROCE.

4) One limitation to ROCE is the fact that it does not account for depreciation of the capital employed. Because capital employed is in the denominator, a company with depreciated assets may find its ROCE increases without an actual increase in profit.

5) It does not consider project life/timing of cash flows

6) It will vary with specific accounting policies

Suggestions

After going through the above study the researchers presents the following suggestions:

1) A public company must raise more money in a cost effective way, which puts it into a good position to see its share price increase; ROCE measures a company's ability to do this.

2) ROCE should always be higher than the rate at which the company is borrowing; otherwise any incremental borrowing will reduce shareholders' earnings.

3) Investors & industry place too much emphasis on the ROCE ratio without carrying out analysis of the supporting key profitability ratios. So along with ROCE other profitability ratios such as GP ratio, NP ratio, operating profit ratios should also be considered by analyzing the profitability of companies.

Conclusion

The return on capital employed is an important measure of a company's profitability. Many investment analysts think that factoring debt into a company's total capital provides a more comprehensive evaluation of how well management is using the debt and equity it has at its disposal. Investors would be well served by focusing on ROCE as a key, if not the key, factor to gauge a company's profitability. An ROCE ratio, as a very general rule of thumb, should be at or above a company's average borrowing rate. Firms can increase their Return on Capital Employed Ratio by:

· Cutting costs so as to increase the Profit Margin ratio

· Buying raw material and other goods at cheaper costs

A company's ROCE should always be compared to the current cost of borrowing. If an investor puts Rs. 100 into a bank for a year at 5% interest, the Rs. 5 received in interest represents a reasonable return on the capital. To justify putting the Rs. 100 into a business instead, the investor must expect a return that is significantly higher than 5%. To deliver a higher return, a public company must raise more money in a cost effective way, which puts it into a good position to see its share price increase; ROCE measures a company's ability to do this. There are no firm benchmarks, but as a very general rule of thumb, ROCE should be at least double the interest rates. An ROCE any lower than this suggests that a company is making poor use

of its capital resources

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