

CHAPTER 1

The Importance of Return on Investment: ROI



After reading this chapter, you will be able to

- Understand how owners view profitability
- Compare the profitability of two companies
- Calculate a return on investment using information about profit and investment

The owners of a company and the company's creditors share a similar goal: to increase wealth. They are thus very concerned about profitability in all phases of operations. Creditors are specifically concerned that the company use its resources profitably so that it can pay interest and principal on its debt. Owners are concerned that the company be profitable so that stock values will increase. Company managers must show they can manage the owners' investment and produce the profits that owners and creditors demand. Because top management must meet the profit expectations of company owners, it passes down to the lower levels of management those profitability goals, which are then spread throughout the company. All managers, therefore, are expected to meet profitability goals, which are often increased and tightened as each level of management seeks a margin of safety.

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**TIPS & TECHNIQUES**

The Accounting Equation

Here are two ways to view what accountants refer to as the accounting equation that relates assets and claims to assets by creditors and owners:

$$\text{Investment in assets} = \text{Investment by creditors} + \text{Investment by owners}$$

$$\text{Assets} = \text{Debt} + \text{Owners' equity}$$

It illustrates the stake that creditors and owners have in a company's investments and explains their interest in the company's success.

What Is Profitability?

If managers are going to be held to profitability goals, someone has to figure out a way to measure *profitability*. Fortunately, accounting has. How do we measure profitability, and how do we determine standards? Is it enough for managers to report that earnings for the year are some amount such as \$500,000? Earnings are determined by subtracting a company's business expenses—salaries, interest, the cost of goods sold, for example—from its revenues from sales, investments, and other sources.

Suppose that a company income statement is composed of the following:

Imaginary Company Income Statement for the Year Ended December 31, 2002

Sales	\$25,000,000
Expenses	(24,500,000)
Profit	<u>\$500,000</u>

The Importance of Return on Investment

Our company has made half a million dollars! Does this mean that company managers have performed well? Probably not, because for sales activity of \$25,000,000, owners, creditors, and top management would expect a higher profit: \$500,000 is only 2 percent of \$25,000,000. Business people expect that profit must be linked to activity if we are going to properly measure the adequacy of a company's profit or judge the efforts of a company's management.

Suppose Imaginary Company instead had the following income statement:

Imaginary Company Income Statement for the Year Ended December 31, 2002

Sales	\$3,125,000
Expenses	(2,625,000)
Profit	<u>\$500,000</u>

It looks like the same half a million, but as we look at the relationship between profit and activity, where \$500,000 in profits is generated by sales of \$3,125,000, we can see that in this scenario the profits are 16 percent of sales.

Still, if we are going to draw conclusions about the profitability, we need to know more than the absolute dollar amount of profit (\$500,000) and the relationship between profit and activity (16 percent in our example). We need to know something about how much money we are earning relative to our investment.

What Is Return on Investment?

Let's suppose that the management team for the company represented by our second income statement, with sales of \$3,125,000 and profits of \$500,000, runs a company with assets—plant, equipment, inventories,

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and other items—worth \$20,000,000. Does this new information change our opinion of the performance of the management team? Of course it does: \$500,000 is only 2.5 percent of \$20,000,000. A 2.5 percent return on an investment of \$20,000,000 is not acceptable! Owners would be better off with their funds invested in treasury bills (T-bills) or even in a savings account—the return would be better, and there would be no risk. A company must generate a much higher return than T-bills or savings accounts to justify the risk involved in doing business. As our example shows, *return on investment*, or *ROI*, is calculated as follows:

$$\text{ROI} = \frac{\text{profit}}{\text{investment}}$$
$$\text{ROI} = \frac{\$500,000}{\$20,000,000} = 0.025, \text{ or } 2.5 \text{ percent}$$

Let's suppose, instead, that the \$500,000 profit was earned using only \$2,000,000 in assets, rather than \$20,000,000. ROI is now 25 percent. This return is much higher than the ROI one expects from T-bills, government bonds, or a bank savings account, and is thus much more acceptable to owners and creditors.

$$\text{ROI} = \frac{\text{profit}}{\text{investment}}$$
$$\text{ROI} = \frac{\$500,000}{\$2,000,000} = 0.25, \text{ or } 25.0 \text{ percent}$$

The relationship between profit and the investment that generates the profit is one of the most widely used measures of company performance. As a quantitative measure of investment and results, ROI provides a company's management (as well as the owners and creditors)

The Importance of Return on Investment

with a simple tool for examining performance. ROI allows management to cut out the guesswork and replace it with mathematical calculation, which can then be used to compare alternative uses of invested capital. (Should we increase inventory? Or pay off debt?)

Creditors and owners can always invest in government securities that yield a low rate of return but are essentially risk-free. Riskier investments require higher rates of return (reward) to attract potential investors. ROI relates profits (the rewards) to the size of the investment used to generate it.

How Can ROI Be Useful?

Profits happen when a company operates effectively. We can tell that the management team is doing its job well if the company prospers, obtains funding, and rewards the suppliers of its funds. ROI is the principal tool used to evaluate how well (or poorly) management performs.

Creditors and Owners

ROI is used by creditors and owners to do the following:

1. *Assess the company's ability to earn an adequate rate of return.* Creditors and owners can compare the ROI of a company to other companies and to industry benchmarks or norms. ROI provides information about a company's financial health.
2. *Provide information about the effectiveness of management.* Tracking ROI over a period of time assists in determining whether a company has capable management.
3. *Project future earnings.* Potential suppliers of capital assess present and future investment and the return expected from that investment.

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Managers

But ROI can do more than measure a company's performance. Managers can use ROI at different levels to help them make decisions regarding how best to maximize profits and add value to the company.

Managers use ROI to do the following:

1. *Measure the performance of individual company segments when each segment is treated as an investment center.* In an investment center, each segment manager controls both profit and an investment base. ROI is the basic tool used to assess both profitability and performance.
2. *Evaluate capital expenditure proposals.* Capital budgeting is long-term planning for such items as renewal, replacement, or expansion of plant facilities. Most capital budgeting decisions rely heavily on discounted cash flow techniques.
3. *Assist in setting management goals.* Budgeting quantifies a manager's plans. Most effective approaches to goal setting use a budgeting process in which each manager participates in setting goals and standards and in establishing operating budgets that meet these goals and standards. Most budgeting efforts begin or end with a target ROI.

Summary

Perhaps the biggest reason for the popularity of ROI is its simplicity. A company's ROI is directly comparable to returns on other, perhaps more familiar, investments (such as an account at the bank) and to the company's cost of capital. If we pay 10 percent interest on capital but earn only 8 percent, that's bad. If we pay 10 percent but earn 15 percent, that's good—what could be more simple?

Alone or in combination with other measures, ROI is the most commonly used management indicator of company profit performance. It is a comprehensive tool that measures activities of different sizes and

The Importance of Return on Investment



IN THE REAL WORLD

Profit Goals May Increase as They Are Delegated

All managers are expected to meet profitability goals, which are often increased and tightened as each level of management seeks a margin of safety.

Board chair	"Let's target 5 percent profit."
President	"We need 10 percent profit this year."
Vice president	"Your goal is 15 percent."
Middle manager	"We've got to turn a 20 percent profit!"
Line manager	"Earn 25 percent or else!"

natures and allows us to compare them in a standard way. In other words, through ROI we can compare apples and oranges, at least in the area of profitability. ROI has its faults and its advantages. It is sometimes tricky to use if you do not understand it completely.

That's what we are going to do in this book—learn to understand ROI.

