



## CASE 53

---

# HENDERSON RADIO

"One thing is certain," said Roberta Flannagan with a smile to her husband, Robert, over breakfast on Monday. "I'll get a number of views on what our required return on equity is. I'm sure I'll get a rather detailed memo from TH, and Fred and I seem to differ on the company's future prospects." Flannagan is the chief finance officer of Henderson Radio, and until her arrival six years ago there was no formal evaluation of the company's required return or cost of capital, and no systematic procedure for evaluating capital budgeting proposals. Investment selections were frequently made on "feel" and the opinion of Fred Millner, the firm's talented general manager. Fortunately, his sense of what would sell was uncanny and Henderson grew rapidly.

### THE FIRM

Henderson, like many firms in the electrical equipment industry, is well diversified in terms of products and markets and obtains a healthy percentage of its sales from government contracts. Unlike most of the other companies, however, it has not been especially aggressive in seeking government defense business. Management's thinking is that the political winds surrounding defense spending can abruptly change direction, so it is best to stay out. Henderson is also unusual in that it has made no effort to move outside the electrical equipment industry. In recent years companies like American Electric and Westinghouse have entered such areas as financial services and cable TV. Millner has always resisted this type of diversification, which he believes would overextend the company. And precisely that has happened to some of the firms that tried.

Six years ago Millner worried that the industry was becoming "too darn competitive" and felt Henderson would have to improve in all areas to continue to grow. At his request the finance department was strengthened and Flannagan was hired as a result. Currently it is time to review the hurdle rate the firm uses in its capital budgeting. The final decision is made from Flannagan's office, but suggestions are always received from Millner and Thomas Henderson, a major stockholder and son of the company's founder.

## TWO MEMORANDA

When Flannagan arrived at her office on Monday she found memos from both of them and a letter from the firm's investment bankers. Millner suggested using a lower proportion of debt to finance projects. Although he feels the firm's debt-equity mix has been optimal, he believes "increasing industry competition coupled with uncertainty surrounding the world economy" dictate a more conservative financing mix in the future. Millner also notes that production techniques within the industry are changing. Specifically, production processes will likely involve a larger amount of fixed costs and a smaller amount of variable costs. This will raise the degree of operating leverage and, consequently, increase the volatility of corporate earnings. "The tea leaves are small," he wrote, "but if you look carefully you can read them." He recommended that "any cost-of-equity estimate assume a 4 percent per year increase in dividends into the foreseeable future." But Millner, who was still not comfortable with the concept of a required return, wondered why the estimation was necessary. He pointed to an in-house study showing the company earned 21.3 percent on the investments it had made over the last decade. "Why not use the return we have actually achieved as the hurdle rate instead of speculating on what we think the rate is? Please give this idea consideration," he wrote in his memo.

Thomas Henderson's opinions were quite different. "If it were my decision I would use 10 percent equity and 90 percent debt. It makes no sense to use as much equity as we do considering debt is so much cheaper." (See his argument in Exhibit 1.) He then stated that if his suggested financing mix was considered too radical he felt the company could safely increase its debt proportion to 30 percent, which he thought was the upper range of the industry average. Finally, he predicted a "rosy future" for earnings and believed yearly dividends should increase by 16 percent per year.

## FLANNAGAN'S VIEW

Flannagan was certainly not in accord with Millner. She agreed there was more competition but felt the market would be larger, too. For example, she believed a strong demand for personal computers would lead to a much greater demand for semiconductors, an important product of Henderson. Flannagan's view was

that dividends and earnings would grow indefinitely at a rate of 9–11 percent per year. Nonetheless, she has much respect for Millner, who she thinks is the top GM in the industry. Flannagan, however, does agree with Millner regarding the technological changes that will alter the industry's production techniques and cause an increase in operating leverage. She also believes that this fact is not fully appreciated by industry analysts and the GMs of other firms.

The letter from the investment bankers contained no surprises. It pointed out that the industry debt percentage ranged from 15 percent to 25 percent, where the amounts of debt and equity were measured at book values and not market values, and when accruals and accounts payable (so-called free capital) were excluded. The bankers recommended no increase in Henderson's present debt percentage because of uncertainty about how the financial markets would react and because there was some possibility Henderson's bond rating would fall. They also felt the company could issue bonds at 12 percent and notes at 10 percent and pointed out that one prestigious investment advisory service was predicting annual earnings and dividend growth for Henderson of 11 percent over the next four years and 6 percent per year after that.

After reading all the correspondence Flannagan then reviewed some other information she had gathered, including the firm's current financing mix. (See Exhibit 2.) Over the past year Henderson's stock ranged in price from \$45 to \$64 a share, and it is now at \$50. The current dividend is \$4 per share, and the firm's relevant tax rate is 40 percent. Beta estimates for the company's stock ranged from 1.3 to 1.7. These figures suggested Henderson was above average in risk, a view she knew few of the company's executives would argue with. After surveying a number of studies, she concluded investors must expect a risk premium of 8 percent above the risk-free return to buy the stock of an average risk company, and a 17 percent premium if the company was considered extremely risky. Finally, she noted the current rate on long-term government bonds was 9 percent.

As Flannagan began to prepare an estimate of the required return she thought, "I wish someone would invent a method that takes the judgment out of the evaluation. It may be true that the study of the required return is a science, but the application of the theory is a real art."

---

**EXHIBIT 1**
**Thomas Henderson's Argument for Using More Debt**


---

"The name of the game is to get our required return or hurdle rate as low as possible. I mean, if we can achieve a low hurdle rate we'll have more projects whose IRR exceeds this low rate. And what will happen to the value of our stock if we consistently implement projects whose return exceeds this hurdle rate? It will go up, of course, thereby benefiting our stockholders. Now suppose the cost of debt is 10 percent and the required return on equity is 20 percent. If (as an example) we use half debt and half equity, the hurdle rate would be 15 percent. But suppose we go easy on the equity and heavy on the debt; say we use 10 percent equity and 90 percent debt. If my arithmetic is correct the hurdle rate is 11 percent. The logic of this argument is overwhelming! Let's use as large a proportion of debt as possible."

---



---

**EXHIBIT 2**
**Henderson Radio's Liabilities and Net Worth (Book Value) (\$000s)**


---

Accounts payable	\$20,068
Notes payable	7,266
Other current	14,186
Bonds	55,360
Common stock	102,598
Retained earnings	<u>94,602</u>
Total liabilities and equity	\$294,080

---