

Berkshire Instruments

Al Hansen, the newly appointed vice president of finance of Berkshire Instruments, was eager to talk to his investment banker about future financing for the firm. One of Al's first assignments was to determine the firm's cost of capital. In assessing the weights to use in computing the cost of capital, he examined the current balance sheet, presented in Figure 1.

In their discussion, Al and his investment banker determined that the current mix in the capital structure was very close to optimal and that Berkshire Instruments should continue with it in the future. Of some concern was the appropriate cost to assign to each of the elements in the capital structure. Al Hansen requested that his administrative assistant provide data on what the cost of issue debt and preferred stock had been in the past. The information is provided in Figure 2.

When Al got the data, he felt he was making real progress toward determining the cost of capital for the firm. However, his investment banker indicated that he was going about the process in an incorrect manner. The important issue is the current cost of funds, not the historical cost. The banker suggested that a comparable firm in the industry, in terms of size and bond rating

(Baa), Rollins Instruments, had issued bonds a year and a half ago for 9.3 percent interest at a \$1,000 par value, and the bonds were currently selling for \$890. The bonds had 20 years remaining to maturity. The banker also observed that Rollings Instruments had just issued preferred stock at \$60 per share, and the preferred stock paid an annual dividend of \$4.80.

In terms of cost of common equity, the banker suggested that Al Hansen use the dividend valuation model as a first approach to determining cost of equity. Based on that approach, Al observed that earnings were \$3 a share and that 40 percent would be paid out in dividends (D_1). The current stock price was \$25. Dividends in the last four years had grown from 82 cents to the current value.

The banker indicated that the underwriting cost (flotation cost) on a preferred stock issue would be \$2.60 per share and \$2.00 per share on common stock. Al Hansen further observed that his firm was in a 35 percent marginal tax bracket.

With all this information in hand, Al Hansen sat down to determine his firm's cost of capital. He was a little confused about computing the firm's cost of common equity. He knew there were two different