

# The Cost of Capital

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and Discounted Cash Flow (the techniques mentioned here are defined and evaluated in chapter 3). Since these methods look only at firms in a single "risk class," they do not require that the analyst estimate the entire risk-return line shown in figure 2.1; they focus directly on the vertical axis.

To use the second strategy, the analyst must examine (at least implicitly) both measures of the stock's risk and the current position of the market line. Methods that require explicit risk measurement include the Capital Asset Pricing Model and the Risk Positioning techniques. These methods first position the firm on the horizontal axis of figure 2.1, and then (again, at least implicitly) use an estimate of the risk-return line to find the proper level for the cost of capital on the vertical axis.

The advantages of one strategy are the disadvantages of the other. The first strategy avoids the need for an estimate of the market line but requires that the evidence used must be from investments of comparable risk. This immediately excludes data from other firms of differing risk. More subtly, it can exclude data on the firm whose cost of capital is now being estimated, if either its risk or the market line has changed since the evidence was collected.

This focus on estimation strategies may be premature. If the reader does not accept that the cost of capital as just defined is the right target for regulators, the general approaches to cost of capital estimation may be of little interest. The remainder of the chapter uses two approaches to develop the reasons that the cost of capital is indeed the appropriate allowed rate of return for a regulated company's investors.<sup>7</sup>

## 2. Why the Allowed Rate of Return Should Equal the Cost of Capital

Law

The United States Supreme Court has established that investors in companies subject to rate regulation must be allowed *an opportunity* to earn returns sufficient to attract capital and comparable to those they would expect in the unregulated sector for bearing the same degree of risk. The *Bluefield* and *Hope* cases provide the seminal decisions.<sup>8</sup>

The *Hope* test is the basic criterion for a legally sufficient rate of return on equity. The court stated:

The rate-making process under the act, i.e., the fixing of "just and reasonable" rates, involves a balancing of the investor and the consumer interests. Thus we stated in the *Natural Gas Pipeline Co.* case that "regulation does not insure that the business shall produce net revenues." 315 U.S. p. 590. But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. . . . By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.<sup>9</sup>

Since by definition the cost of capital of a regulated firm represents precisely the expected return that investors could anticipate from other investments while bearing no more and no less risk, and since investors will not provide capital unless the investment is expected to yield its opportunity cost of capital, the correspondence of the definition of the cost of capital with the court's definition of legally required earnings appears clear. *Hope* refers to both "commensurate" earnings and the attraction of capital. These two approaches are harmonized when the allowed rate of return is set equal to the cost of capital.

*Hope* is sometimes cited for the proposition that some specific method of establishing the rate of return on equity is the only legally permissible technique. However, *Hope* states clearly that it is the "end result" of the regulation process that determines legality, not the specific technique used to calculate rate of return. All the standard cost-of-capital estimation techniques can meet the requisite legal tests; it is the way they are applied that is important.

Despite the obvious correspondence between the precepts of *Hope* and the financial concept of the cost of capital, public utility statutes and the applicable case law give no detailed prescription for what constitutes a "just and reasonable" rate of return on equity. In the absence of detailed guidelines from legislatures or the higher courts, various general judicial concepts about rate setting have been developed and applied by courts. The key concepts are:

1. Balance: the establishment of a just and reasonable rate involves a balancing of the investor and consumer interests.