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The Cost of Capital
Estimating the Rate of Return for Public Utilities

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with George R. Hall

A Charles River Associates Study

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2 The Cost of Capital: What It Is and Why It Matters

Why should the cost of capital "set on Wall Street" determine the rate of return that a utility thousands of miles away should receive? This chapter provides the answer. It defines the cost of capital and then shows why the cost of capital is the right target for the allowed rate of return.

1. The Concept of the Cost of Capital

The cost of capital is the minimum rate of return necessary to attract capital to an investment.[1] It can be defined as "the expected rate of return prevailing in capital markets on alternative investments of equivalent risk." There are four ideas contained in this definition:

1. The cost of capital is a forward-looking concept. Investment returns are inherently uncertain; actual returns may differ from expected returns. The cost of capital is an *expected* rate of return.

2. The cost of capital is an *opportunity cost* concept. Investors face a variety of investment opportunities, so the expected rate of return on any investment must be sufficient to compensate investors for the expected rate of return on foregone investments.

3. The cost of capital is determined in *capital markets*. It is a market price expressed in terms of the expected return per dollar invested. This market price establishes a balance between the supply of and the demand for capital.

4. The cost of capital depends on the *risk* of the investment.[2] It is the expected rate of return on investments of equivalent risk. Put another way, it is the rate of return that investors could expect to earn on other investments while bearing no more and no less risk.

The cost of capital is sometimes referred to as "the opportunity cost of capital" or " the required rate of return." Both phrases convey the idea that alternative investment opportunities provide a frame of reference for the cost of capital.

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