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The Role of Abandonment Value in Capital Asset Management

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In a recent article in this journal Jeffrey E. Jarrett developed an abandonment decision model in which he attempted to explicitly incorporate uncertainty into the decision process [4]. Although the issue addressed in Jarrett's effort is an important one in the field of asset management and prior work has not been entirely satisfactory, his model is based on faulty economic logic and will not in general lead to optimal abandonment decisions. In this paper, the role of abandonment value in capital asset management is examined and incorporated into the decision process.

THE ABANDONMENT PROBLEM

Many capital projects have a substantial abandonment or disposal value at various times during their economic lives. This possibility of abandoning a capital project prior to the end of its projected economic life plays an important role in a variety of capital asset management decisions. Robichek and Van Horne [6] [7] demonstrated that the possibility of abandonment typically increases the expected return from an investment and reduces the variability (risk) associated with that return. The work of Robichek and Van Horne was extended somewhat by Dyl and Long [2], and Schwab and Lucstig [8], but without major change in the economic rationale for inclusion of abandonment in the investment decision.

Abandonment possibilities also enter in an important fashion into the periodic decision concerning whether to continue to hold a capital asset as opposed to either replacing or scrapping it. This is the decision problem Jarrett explicitly addressed.