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On Market Timing and Investment Performance. I. An Equilibrium Theory of Value for Market Forecasts

An equilibrium theory for the value of market-timing skills is derived for the case where there are only two possible predictions: either stocks are predicted to outperform bonds or bonds are predicted to outperform stocks. It is shown that the pattern of returns from successful market timing has an isomorphic correspondence to the pattern of returns from following certain option investment strategies. This correspondence is used to derive a unique equilibrium price structure of management fees which are independent of investors' preferences, endowments, or prior probability assessments for stock returns. Sufficient statistics for evaluating market-timing skills are derived, and it is shown that the number of correct forecasts is not a useful statistic for this purpose.

I. Introduction

The evaluation of the performance of investment managers is a much-studied problem in finance. The extensive study of this problem could be justified solely on the basis of the manifest function of these evaluations, which is to aid in the efficient allocation of investment funds among managers. However, an equally important latent function of these evaluations is to provide a method of testing the Efficient Markets Hypothesis.[1] If market participants are rational, a necessary condition for superior performance is superior forecasting skills on the part of the performer. Hence, these evaluations can help resolve whether or not the existence of different information among market participants plays an empirically significant role in the formation of equilibrium security prices.

One of the principal applications of modern capital market theory has been to provide a structural specification within which to measure investment performance and thereby to identify

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1. Because those who believe that they have superior forecasting skills are reluctant to make public the techniques they use, the evaluation of investment performance is essential for "unbiased" testing on the Efficient Market Hypothesis. Fama (1970) provides an excellent discussion of both the Efficient Markets theory and the various attempts to test it.

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