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# Measuring Investment Performance in a Rational Expectations Equilibrium Model\*

## I. Introduction

Much research has been concerned with evaluating the performance of managed portfolios (e.g., mutual funds) and examining whether portfolio managers display, in some sense, "superior performance." Superior performance would seemingly turn on the possession of superior information that is utilized in managing portfolios. In general, a fund's asset holdings (or portfolio weights) might not be observable to an outsider. Whether they are or not, however, they are likely to change over time. This happens especially when better performance is a result of superior information, since managers will change their portfolio composition on obtaining private information. Since such changes must be taken into account, the problem of measuring performance of managed portfolios is inherently different from that of evaluating the performance of individual assets, groups of assets, or, generally, portfolios with constant and known composition.

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In this paper we study the problem of measuring investment performance when superior performance is identified with superior information. We do this in the context of a full equilibrium model of securities markets, in which agents have diverse and asymmetric private information and behave optimally. It is shown that the traditional risk-return measures are inappropriate in this context, and we develop alternative statistical procedures for making valid performance inferences.