ASYMMETRIC INFORMATION AND
PORTFOLIO PERFORMANCE MEASUREMENT

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This note argues that though Dave Mayers and Edward Rice were able to show that the CAPM could be used to detect superior investors in a world of asymmetric information, their demonstration does not resurrect the CAPM as a practical tool for performance measurement. To employ the Mayers–Rice model, an investment advisor would first have to determine that the CAPM holds for uninformed investors. As a means of avoiding the problem of testing the CAPM, a performance measure based only on returns is outlined. The measure is robust in that it would correctly designate superior investors in context of the CAPM, the arbitrage pricing model and many other equilibrium models of security pricing.

1. Introduction

The role of the capital asset pricing model, CAPM, in measuring investor performance has been widely debated. In his path breaking articles, Roll (1977, 1978) argued that the security market line, SML, cannot be used as an unambiguous performance measure. More recently, David Mayers and Edward Rice (1979) henceforth, MR, have shown that if asymmetric information is introduced, the SML can be used to distinguish superior investors.

This comment may be seen as an attempt to integrate Roll's critique with the work of Mayers and Rice, in that it describes an alternative performance measure which is equivalent to the SML in the MR model, but does not rely on an index. In addition, the suggested performance measure is more robust than the SML. In fact, it need not even be assumed that CAPM holds. All that must be assumed is that the process generating security returns is stationary, given the information of the individual attempting to measure performance. Since such an assumption is required of essentially every statistical test, the technique may be seen as a general method of measuring performance.

To provide continuity with previous work, the MR method of introducing asymmetric information is employed throughout the paper. Section 2 con-