

STATISTICS DEPARTMENT



SEMINAR

TITLE: **PERFORMANCE OF PORTFOLIOS
OPTIMIZED WITH ESTIMATION ERROR**

SPEAKER: Andrew F. Siegel
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and Finance
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TIME: 4:00 P.M.

DATE: Wednesday, April 26, 2006

ROOM: 140 BARDEEN

ABSTRACT:

We explain the poor out-of-sample performance of mean-variance optimized portfolios, developing theoretical bias adjustments for estimation risk by asymptotically expanding future returns of portfolios formed with estimated weights. We provide closed-form non-Bayesian adjustments of classical estimates of portfolio mean and standard deviation. The adjustments significantly reduce bias in international equity portfolios, increase economic gains, and are robust to sample size and to non-normality. Dominant terms grow linearly with the number of assets and decline inversely with the number of past time periods. Under suitable conditions, Sharpe-ratio maximizing tangency portfolios become more diversified. Using these methods it is possible to assess, before investing, the effect of statistical estimation error on portfolio performance. (Joint work with Artemiza Woodgate).

Coffee and Cookies at 3:30 p.m. in Room 1210 MSC