

A METHODOLOGY FOR IDENTIFYING THE DETERMINANTS OF RISK PREMIUMS

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A methodology is developed to identify the determinants of equity risk premiums. The paradigm for this methodology is a linear model of expected asset returns, which includes the Arbitrage Pricing Theory (APT) as a special case. Tests and practical applications of models such as the APT depend on identifying economic factors related to uncertainty in asset returns. The methodology of this study provides an alternative to factor analysis in identifying the underlying sources of uncertainty.

Straightforward economic reasoning is used to identify variables associated with return uncertainty. In investment practice, security analysts routinely link equity returns to more fundamental economic variables. This study formalizes the procedures employed in security analysis. Firm earnings are viewed as contingent variables, dependent on underlying economic state variables. The state variables include both macroeconomic factors and variables specific to particular industries and firms. A pricing relationship is developed in which firm values are determined by the values of basic securities, which in turn are defined in terms of the state variables. The pricing relationship in this model is sufficiently general to encompass the Arbitrage Pricing Theory, as well as other linear asset pricing models.

The methodology is applied at an aggregate level to a broad cross-section of equity returns. Economic variables related to systematic movements in equity returns are employed as the state variables. The Non-Linear Seemingly Unrelated Regressions technique is used to

determine whether differences in return sensitivities to these variables explain differences in risk premiums. The evidence indicates that covariability with these variables partially explains observed risk premiums. However, risk premiums are also related to industry specific factors. The existence of industry specific risk premiums provides further opportunities for application of the methodology at a disaggregated level. Applications of the methodology in the identification of industry specific factors are discussed.