Comparing Asset Pricing Models

Francisco Barillas and Jay Shanken

First Draft: August 31st 2014
Current Draft: October 7th 2015

Abstract

A Bayesian asset-pricing test is derived that is easily computed in closed-form from the standard F-statistic. Given a set of candidate traded factors, we develop a related test procedure that permits an analysis of model comparison, i.e., the computation of model probabilities for the collection of all possible pricing models that are based on subsets of the given factors. We find that the recent models of Hou, Xue and Zhang (2015a,b) and Fama and French (2015a,b) are both dominated by five and six-factor models that include a momentum factor, along with value and profitability factors that are updated monthly. Thus, although the standard value factor is redundant, a version that incorporates more timely price information is not.

1 Barillas and Shanken are from Goizueta Business School at Emory University. Shanken is also from the National Bureau of Economic Research. Corresponding author: Jay Shanken, Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta, Georgia, 30322, USA; telephone: (404)727-4772; fax: (404)727-5238. E-mail: jay.shanken@emory.edu. Thanks to seminar participants at Southern Methodist University and the Universities of Geneva, Luxembourg and Lausanne.