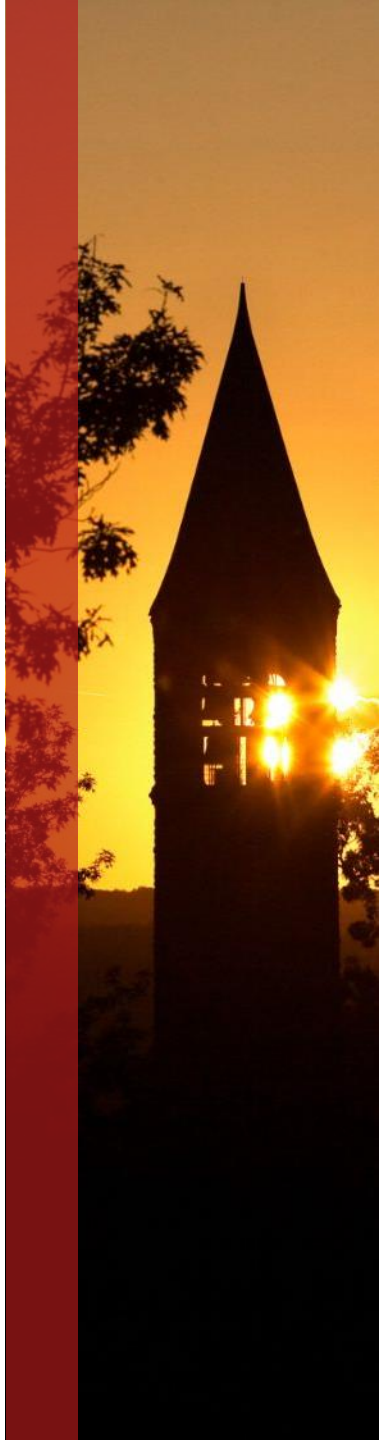
Dyson
The Hotel School
Johnson

Cornell
SC Johnson College of Business



A Discussion of Jensen, Kelly & Pedersen's "Is There a Replication Crisis in Finance?"

By Andrew Karolyi, Cornell University

AI & Big Data in Finance Research (Virtual)
May 27, 2021

Why is this Jensen et al study important?

- A crisis of confidence exists in many disciplines of science; finance included!
- Opening paragraph throws down the challenges: No internal validity (Hou et al.), no external validity (Harvey et al.)

  "We conclude that neither criticism is tenable and that the collective body of factor research is both internally and externally valid."
- Open Science Movement is challenging us to advance
- Responsible Research in Business & Management Network (www.rrbm.network), AACSB is compelling change

Two additional perspectives

- **Perspective #2 – A Recovering Bayesian Speaks Up**
  - Heirarchical Bayes, including empirical Bayes methods for priors/hyper-priors, well known before 2013 book on Bayesian Data Analysis by Andrew Gelman
  - Including classic Finance applications in the 1970s
- **Perspective #3 – A Proud International Asset Pricer Speaks**
  - Love the breadth of study of 153 factors in 93 countries across decades of monthly stock returns
  - Vast literature offers lots of protocols on building databases
  - Partial segmentation models can help here

What I liked more, what I liked less and an idea!

- Exposition, data visualization, tabulation superb!
- Introduction flow, logical reasoning, Figure 1 incredible
- Figure 3 and estimated alpha point estimates and confidence ranges across 150+ factors is your “one-stop” finding Figure 5 is not too far behind
- Length is a problem (says the former journal editor!)
  - Slogging discussion of FDR, FWER principles and simulation analysis in pages 22-26 skippable
  - Section 1’s walk through Bayesian framework can be shaved in half
- Proposition 3 on hierarchical alphas – potential tie-in with combining minimax shrinkage estimators from 1970s that offers more elegant approach (Statistician Ed George, Wharton)