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Most Financial Economics Research is 'Likely False'

By Brendan Conway

You might have heard of the study "[Why Most Published Research Findings are False](#)." But who knew Ph.D.s had this much righteous indignation?

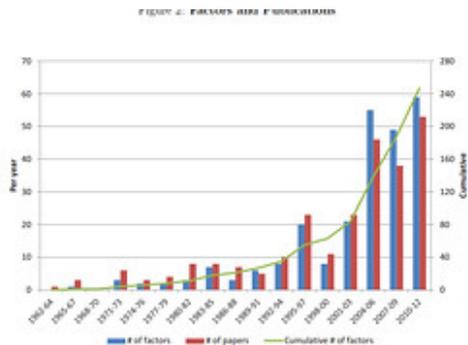
Two months back, we heard the argument that [tinkering with investment backtests amounts to fraud](#).

The latest is a group at **Duke University** [arguing](#) that commonly accepted methods for spotting investment "factors," i.e., the qualities that quants deem to be sources of investing returns, are too weak. It follows that many of the factors themselves are likely to be bunkum, the group argues.

The most remarkable statistic turned in by **Campbell R. Harvey, Yan Liu and Heqing Zhu** in their **Social Science Research Network** paper may be the fact that more than 300 investment factors have been trotted out by researchers, most of them in the last decade.

Do you suspect that they can't all be real? I do. That's more than one factor for every pair of stocks in the **S&P 500**.

From Harvey, Liu and Zhu:



At least 315 factors have been tested to explain the cross-section of expected returns. Most of these factors have been proposed over the last ten years. Indeed, Cochrane (2011) refers to this as "a zoo of new factors". Our paper argues that it is a serious mistake to use the usual statistical significance cutoffs (e.g., a t-ratio exceeding 2.0) in asset pricing tests. Given the plethora of factors and the inevitable data mining, many of the historically discovered factors would be deemed "significant" by chance. ... Many published factors fail to exceed our recommended cutoffs....

[T]here are surely many factors that were tried by empiricists, failed, and never made it to publication or even a working paper. Indeed, the culture in financial economics is to focus on the discovery of new factors. In contrast to other fields such as medical science, it is rare to publish replication studies of existing factors. ...

In medical research, the recognition of the multiple testing problem has led to the disturbing conclusion that "most claimed research findings are false" (Ioannidis (2005)). Our analysis of factor discoveries leads to the same conclusion – many of the factors discovered in the field of

| finance are likely false discoveries[.]

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