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Dear Editor,

My co-authors (Oleg Korenok and Jack Dorminey) and I request that you consider the attached paper titled "Spurious Correlation due to Scaling" for publication in *Journal of Accounting & Economics*.

Deflating, or scaling, the dependent and independent variables in regression models by a third variable is common in accounting and finance research. This third variable is typically related to the size of the firm (e.g., total assets, market capitalization, number of shares outstanding, total revenues, etc.), and the justifications given for scaling are often related to either mitigating the impact that size differences in firms have on OLS estimates or heteroskedasticity.

A common form of scaling in accounting research is similar to Weighted Least Squares (WLS), but without the inclusion of a scaled intercept term. We show both analytically and with Monte Carlo simulations that this bastardized version of WLS biases OLS parameter estimates and invalidates hypothesis tests. After analytically deriving the amount of the bias, which is a function of the intercept term, the independent variable, and the scaling variable, we show that the amount of the bias is meaningful and substantial when using variables common in market-based accounting research studies under the Ohlson (1995) framework.

All of the variables explored in our Monte Carlo simulations have means and variances based on the population of firms covered by CRSP and COMPUSTAT, and the dependent, independent, and scaling variables are generated to be independent of one another. We observe Type 1 error rejection rates that are typically between 35% and 98%. These Type 1 rejection rates are alarming given that, at conventional levels, researchers typically expect a 5% rejection rate by chance. Our paper closes with various suggestions for alternatives to scaling that researchers may use based on the inital reasons that lead researchers to scale in the first place.

Thank you for your consideration,

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