

# A Misuse of Specification Tests

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January 22, 2023

## Abstract

Empirical researchers often perform model specification tests, such as the Hausman test and the overidentifying restrictions test, to confirm the validity of estimators rather than the validity of models. This paper examines the effectiveness of specification pretests in finding invalid estimators. We study the local asymptotic properties of test statistics and estimators and show that locally unbiased specification tests cannot determine whether asymptotically efficient estimators are asymptotically biased. The main message of the paper is that correct specification and valid estimation are different issues. Correct specification is neither necessary nor sufficient for asymptotically unbiased estimation under local overidentification.

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\*This research was supported by JSPS KAKENHI Grant Number 21K01427.

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