

Much ado about nothing: dynamic models with too many zeroes

Andrew Harvey (with Ryoko Ito)

Abstract:

We consider situations in which a significant proportion of observations are identically zero or have been set to zero because they fall below a certain threshold. When the distribution for non-zero observations is continuous, the net result is a point-mass mixture distribution. We propose an integrated approach for dynamic models with censored observations that is straightforward to apply and logically consistent. The model is fitted to the volume of IBM shares traded every 15 seconds.

KEYWORDS: Censored distributions; dynamic conditional score model; dynamic Tobit; EGARCH; generalized beta distribution.