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ERRATUM

Erratum to: Testing structural changes in panel data with small fixed panel size and bootstrap

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Published online: 23 September 2015 © Springer-Verlag Berlin Heidelberg 2015

Erratum to: Metrika (2015) 78:665–689 DOI 10.1007/s00184-014-0522-8

In the original publication, the form of the change point estimate presented in Section 4 is not suitable. The correct form of the estimate with correct assertion of Theorem 3 is given below. The corrected version of the original paper can be found on arXiv http://arxiv.org/abs/1509.01291.

Having a sequence of weights $\{w(t)\}_{t=2}^T$, let us define the estimate of τ as

$$\widehat{\tau}_N := \arg\min_{t=2,\dots,T} \frac{1}{w(t)} \sum_{i=1}^N \sum_{s=1}^t (Y_{i,s} - \overline{Y}_{i,t})^2.$$
 (3)

Assumption E1 The sequence $\left\{\frac{t}{w(t)}\left(1-\frac{r(t)}{t^2}\right)\right\}_{t=2}^T$ is decreasing.

Assumption E2 There exist constants L > 0 and $N_0 \in \mathbb{N}$ such that

$$L < \sigma^2 \left[\frac{t}{w(t)} \left(1 - \frac{r(t)}{t^2} \right) - \frac{\tau}{w(\tau)} \left(1 - \frac{r(\tau)}{\tau^2} \right) \right] + \frac{\tau(t - \tau)}{t w(t)} \frac{1}{N} \sum_{i=1}^N \delta_i^2,$$

for each $t = \tau + 1, \ldots, T$ and $N \ge N_0$.

The online version of the original article can be found under doi:10.1007/s00184-014-0522-8.

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Assumption E3 $\lim_{N\to\infty} \frac{1}{N^2} \sum_{i=1}^N \delta_i^2 = 0.$

Assumption E4 $\exists \varepsilon_{1,t}^4 < \infty, t \in \{1,\ldots,T\}.$

Theorem 3 (Change point estimate consistency) Suppose that $\tau \neq 1$. Then, under Assumptions A1, E1, E2, E3, and E4

$$\lim_{N\to\infty} \mathsf{P}\left[\widehat{\tau}_N = \tau\right] = 1.$$

