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# CORRECTION

## ASYMPTOTIC BEHAVIOR OF $M$ ESTIMATORS OF $p$ REGRESSION PARAMETERS WHEN $p^2/n$ IS LARGE: II. NORMAL APPROXIMATION

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Dr. Z. D. Bai has found an error in the proof of Lemma 3.2, requiring a slight strengthening of condition X2. The last line of the proof is incorrect since $Q_i$ may be negative. Condition X2 should read as follows.

X2. $\{x_i\}$ are such that, for any $B$,

$$(2.5) \qquad \sup_{\|w\| \le b^{-1/2}} \sup_{\|\beta\|^2 \le pB/n} \sum_{i=1}^{n} (x_i'w)^2 Q(R_i, x_i'\beta) = \mathbf{O}_p(pn \log n)^{1/2},$$

$$(2.5') \qquad \inf_{\|w\| \le b^{-1/2}} \inf_{\|\beta\|^2 \le pB/n} \sum_{i=1}^{n} (x_i'w)^2 Q(R_i, x_i'\beta) = \mathbf{O}_p(pn \log n)^{1/2},$$

where $b$ is as in condition X1 and $Q$ is defined in (2.1).

It is straightforward to see that the new condition X2 still holds in probability when $\{x_i\}$ satisfy the multivariate distributional assumption (4.1). The proof of Lemma 3.2 is now even easier: Define $w = n^{1/2}(X'X)^{-1/2}u$. Then $y'u = n^{-1/2}x'w$ and $\|w\| \le b^{-1/2}\|u\|$; so condition X2 now provides the result directly.

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