

$$\begin{aligned}\mu_3 &= \frac{1}{270}(1-2\theta)(2-\theta)(1+\theta) \\ \sqrt{\beta_1} &= \frac{(1-2\theta)(2-\theta)(1+\theta)}{\{1-\theta(1-\theta)\}^{\frac{3}{2}}} \frac{1}{5} \sqrt{2}\end{aligned}\tag{1.19}$$