Engle-Granger critical value calculation at the 5% level for $N = 2$ and $T = 25$ with no trend:

$$\beta_{\text{inf}} + \beta_1/T + \beta_2/T^2 + \beta_3/T^3$$

$$-3.33613 - 6.1101/25 - 6.823/25^2 = -3.635118$$

With trend:

$$-3.78057 - 9.5106/25 - 12.074/25^2 = -4.257586$$

For $N = 2$ and $T = 45$, as with GDP per capita in local currency units:

$$-3.33613 - 6.1101/45 - 6.823/45^2 = -3.475$$

With trend:

$$-3.78057 - 9.5106/45 - 12.074/45^2 = -3.998$$

References

[(2010)] MacKinnon, James G., 2010. Critical Values for Cointegration Tests. `http://qed.econ.queensu.ca/working_papers/papers/qed_wp_1227.pdf`