

Critical Values of CIPS Statistics, Non-Truncated and Truncated Versions (Table S1a-c)

Critical Values of CADFi Statistics, Non-Truncated Versions (Table S2a-c)
 2 Februrarty.2009

Having established that the limit distribution of the individual $t_i(N, T)$ statistic is free of nuisance parameters, we now focus on panel unit root tests based on the average of a suitably truncated version of $t_i(N, T)$ which we denote by $t_i^*(N, T)$. The truncation is carried out as in Pesaran (2007) to avoid certain technical difficulties concerning the existence of the moments of the non-truncated version of the individual statistics when T is finite. The truncated statistics are defined by

$$t_i^*(N, T) = \begin{cases} t_i(N, T), & \text{if } -K_1 < t_i(N, T) < K_2, \\ -K_1, & \text{if } t_i(N, T) \leq -K_1, \\ K_2, & \text{if } t_i(N, T) \geq K_2, \end{cases}$$

where K_1 and K_2 are positive constants that are sufficiently large so that $\Pr[-K_1 < t_i(N, T) < K_2]$ is sufficiently large. Using the normal approximation of $t_i(N, T)$, we would have $K_1 = -E(CADF_i) - \Phi^{-1}(\varepsilon/2)\sqrt{Var(CADF_i)}$, and $K_2 = E(CADF_i) + \Phi^{-1}(\varepsilon/2)\sqrt{Var(CADF_i)}$, where $\Phi^{-1}(\cdot)$ is the inverse of the cumulative standard normal distribution function, and ε is a sufficiently small positive constant. K_1 and K_2 can now be obtained using simulated values of $E(CADF_i)$ and $Var(CADF_i)$ with $\varepsilon = 1 \times 10^{-6}$ for $N = 200$, and $T = 200$, with 10000 replications. It is clear that the truncation does not affect the limit distribution and Theorem continues to apply to $t_i^*(N, T)$ so that

$$t_i^*(N, T) - CADF_i^* = o_p(1), \quad (1)$$

where

$$CADF_i^* = \begin{cases} CADF_i, & \text{if } -K_1 < CADF_i < K_2, \\ -K_1, & \text{if } CADF_i \leq -K_1, \\ K_2, & \text{if } CADF_i \geq K_2. \end{cases}.$$

The panel unit root tests associated with the non-truncated and truncated versions of the individual unit root tests are given by

$$CIPS(N, T) = N^{-1} \sum_{i=1}^N t_i(N, T), \quad (2)$$

and

$$CIPS^*(N, T) = N^{-1} \sum_{i=1}^N t_i^*(N, T). \quad (3)$$

Since by construction all moments of $t_i^*(N, T)$ exist, using (1) it now follows (under assumptions of Theorem ??) that

$$CIPS^*(N, T) - \overline{CADF^*} = o_p(1), \text{ almost surely,}$$

where $\overline{CADF^*} = N^{-1} \sum_{i=1}^N CADF_i^*$. Hence, $CIPS^*(N, T)$ has the same limit distribution as $\overline{CADF^*}$, almost surely. But following Pesaran (2007, Section 4), it is easily seen that the limit distribution of $\overline{CADF^*}$ exists and is free from nuisance parameters, although it is not analytically tractable. But the critical values of the distribution of $\overline{CADF^*}$ (or $\overline{CADF} = N^{-1} \sum_{i=1}^N CADF_i$) can be obtained easily by stochastic simulations.

Obtained K_1 and K_2 given number of x, k , are are reported in the table below:

| | Case I | | Case II | | Case III | |
|---------|--------|-------|---------|-------|----------|-------|
| | K_1 | K_2 | K_1 | K_2 | K_1 | K_2 |
| $k = 0$ | 6.12 | 4.16 | 6.19 | 2.61 | 6.42 | 1.70 |
| $k = 1$ | 6.53 | 3.75 | 6.65 | 2.57 | 6.90 | 1.82 |
| $k = 2$ | 6.78 | 3.34 | 6.86 | 2.36 | 7.14 | 1.73 |
| $k = 3$ | 7.04 | 3.10 | 7.20 | 2.30 | 7.48 | 1.74 |
| $k = 4$ | 7.28 | 2.87 | 7.41 | 2.16 | 7.63 | 1.61 |

The critical values of $\overline{CADF^*}$ are reported in parentheses, if they differ from the non-truncated ones.

Table S1(a): Critical Values of Average of Individual Cross-Sectionally Augmented Dickey-Fuller Distribution (Case I: No Intercept and No Trend)

| | | k + 1 = 1 | | | | | | | | | | | | | | | | | | | |
|---|-------|-----------|-------|-------|-------|-------|-----------|-------|-------|---------|-------|------------|---------|-------|-------|---------|-----------|---------|---------|---------|---------|
| | | 1% (CADF) | | | | | 5% (CADF) | | | | | 10% (CADF) | | | | | | | | | |
| p | (T,N) | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | | |
| 0 | 20 | -1.81 | -1.73 | -1.67 | -1.65 | -1.61 | -1.58 | -1.60 | -1.55 | -1.51 | -1.51 | -1.49 | -1.48 | -1.48 | -1.46 | -1.43 | -1.42 | -1.42 | -1.41 | | |
| | 30 | -1.79 | -1.72 | -1.67 | -1.63 | -1.61 | -1.60 | -1.60 | -1.56 | -1.53 | -1.51 | -1.50 | -1.50 | -1.49 | -1.46 | -1.44 | -1.43 | -1.43 | -1.43 | | |
| | 50 | -1.79 | -1.72 | -1.68 | -1.64 | -1.63 | -1.60 | -1.61 | -1.56 | -1.54 | -1.52 | -1.51 | -1.50 | -1.50 | -1.47 | -1.45 | -1.44 | -1.44 | -1.42 | | |
| | 70 | -1.81 | -1.73 | -1.67 | -1.65 | -1.63 | -1.60 | -1.61 | -1.56 | -1.53 | -1.53 | -1.51 | -1.50 | -1.50 | -1.46 | -1.44 | -1.45 | -1.43 | -1.43 | | |
| | 100 | -1.78 | -1.72 | -1.66 | -1.65 | -1.64 | -1.60 | -1.60 | -1.56 | -1.54 | -1.52 | -1.52 | -1.50 | -1.48 | -1.46 | -1.44 | -1.44 | -1.44 | -1.43 | | |
| | 200 | -1.80 | -1.73 | -1.68 | -1.64 | -1.63 | -1.60 | -1.60 | -1.57 | -1.54 | -1.53 | -1.51 | -1.50 | -1.49 | -1.47 | -1.46 | -1.45 | -1.44 | -1.43 | | |
| 1 | 20 | -1.82 | -1.74 | -1.69 | -1.66 | -1.62 | -1.59 | -1.61 | -1.56 | -1.51 | -1.50 | -1.49 | -1.47 | -1.48 | -1.45 | -1.42 | -1.42 | -1.41 | -1.40 | | |
| | 30 | -1.80 | -1.74 | -1.67 | -1.65 | -1.62 | -1.61 | -1.60 | -1.57 | -1.53 | -1.51 | -1.50 | -1.50 | -1.49 | -1.46 | -1.44 | -1.42 | -1.43 | -1.42 | | |
| | 50 | -1.80 | -1.73 | -1.68 | -1.65 | -1.63 | -1.60 | -1.61 | -1.57 | -1.54 | -1.52 | -1.52 | -1.50 | -1.50 | -1.47 | -1.45 | -1.44 | -1.44 | -1.42 | | |
| | 70 | -1.80 | -1.72 | -1.68 | -1.66 | -1.64 | -1.61 | -1.61 | -1.56 | -1.54 | -1.53 | -1.51 | -1.50 | -1.50 | -1.46 | -1.44 | -1.45 | -1.43 | -1.43 | | |
| | 100 | -1.79 | -1.72 | -1.67 | -1.65 | -1.64 | -1.61 | -1.60 | -1.57 | -1.54 | -1.52 | -1.52 | -1.51 | -1.49 | -1.47 | -1.45 | -1.44 | -1.44 | -1.43 | | |
| | 200 | -1.79 | -1.74 | -1.68 | -1.65 | -1.63 | -1.61 | -1.60 | -1.57 | -1.54 | -1.53 | -1.51 | -1.50 | -1.49 | -1.47 | -1.46 | -1.45 | -1.44 | -1.43 | | |
| 2 | 20 | -1.74 | -1.67 | -1.62 | -1.59 | -1.56 | -1.53 | -1.52 | -1.47 | -1.43 | -1.42 | -1.40 | -1.38 | -1.39 | -1.36 | -1.33 | -1.32 | -1.31 | -1.31 | | |
| | 30 | -1.77 | -1.70 | -1.63 | -1.59 | -1.58 | -1.57 | -1.56 | -1.51 | -1.48 | -1.46 | -1.45 | -1.45 | -1.44 | -1.40 | -1.38 | -1.36 | -1.37 | -1.36 | | |
| | 50 | -1.77 | -1.70 | -1.65 | -1.62 | -1.61 | -1.58 | -1.58 | -1.53 | -1.51 | -1.49 | -1.48 | -1.47 | -1.47 | -1.43 | -1.42 | -1.40 | -1.40 | -1.39 | | |
| | 70 | -1.78 | -1.70 | -1.66 | -1.63 | -1.62 | -1.59 | -1.58 | -1.54 | -1.51 | -1.51 | -1.49 | -1.48 | -1.47 | -1.44 | -1.42 | -1.42 | -1.41 | -1.40 | | |
| | 100 | -1.78 | -1.72 | -1.65 | -1.65 | -1.62 | -1.59 | -1.59 | -1.54 | -1.52 | -1.51 | -1.50 | -1.49 | -1.47 | -1.45 | -1.43 | -1.43 | -1.42 | -1.42 | | |
| | 200 | -1.78 | -1.72 | -1.67 | -1.64 | -1.62 | -1.60 | -1.59 | -1.56 | -1.53 | -1.52 | -1.50 | -1.49 | -1.49 | -1.46 | -1.45 | -1.44 | -1.43 | -1.43 | | |
| 3 | 20 | -1.75 | -1.70 | -1.63 | -1.60 | -1.57 | -1.54 | -1.51 | -1.48 | -1.43 | -1.42 | -1.40 | -1.38 | -1.39 | -1.35 | -1.32 | -1.31 | -1.31 | -1.30 | | |
| | 30 | -1.77 | -1.71 | -1.66 | -1.63 | -1.61 | -1.59 | -1.56 | -1.52 | -1.48 | -1.46 | -1.45 | -1.45 | -1.44 | -1.40 | -1.38 | -1.36 | -1.36 | -1.36 | | |
| | 50 | -1.78 | -1.71 | -1.65 | -1.63 | -1.63 | -1.60 | -1.58 | -1.54 | -1.52 | -1.49 | -1.49 | -1.48 | -1.47 | -1.44 | -1.42 | -1.40 | -1.40 | -1.39 | | |
| | 70 | -1.78 | -1.72 | -1.67 | -1.64 | -1.63 | -1.60 | -1.58 | -1.54 | -1.52 | -1.51 | -1.49 | -1.48 | -1.47 | -1.43 | -1.42 | -1.42 | -1.41 | -1.41 | | |
| | 100 | -1.79 | -1.72 | -1.66 | -1.65 | -1.64 | -1.60 | -1.59 | -1.55 | -1.53 | -1.51 | -1.51 | -1.50 | -1.47 | -1.45 | -1.43 | -1.43 | -1.42 | -1.42 | | |
| | 200 | -1.78 | -1.73 | -1.67 | -1.64 | -1.62 | -1.61 | -1.60 | -1.56 | -1.54 | -1.52 | -1.51 | -1.50 | -1.49 | -1.47 | -1.45 | -1.44 | -1.43 | -1.43 | | |
| 4 | 20 | -1.68 | -1.60 | -1.55 | -1.53 | -1.49 | -1.46 | -1.44 | -1.40 | -1.35 | -1.34 | -1.33 | -1.30 | -1.29 | -1.27 | -1.24 | -1.23 | -1.22 | -1.20 | | |
| | 30 | | | | | | (-1.52) | | | (-1.39) | | | (-1.32) | | | | | | | | |
| | 50 | -1.76 | -1.65 | -1.62 | -1.58 | -1.56 | -1.54 | -1.51 | -1.46 | -1.43 | -1.41 | -1.40 | -1.40 | -1.39 | -1.39 | -1.35 | -1.33 | -1.30 | -1.31 | -1.31 | |
| | 70 | -1.75 | -1.69 | -1.64 | -1.61 | -1.60 | -1.59 | -1.55 | -1.50 | -1.49 | -1.46 | -1.46 | -1.45 | -1.44 | -1.40 | -1.39 | -1.37 | -1.37 | -1.36 | | |
| | 100 | -1.76 | -1.70 | -1.65 | -1.63 | -1.61 | -1.59 | -1.56 | -1.52 | -1.49 | -1.49 | -1.47 | -1.46 | -1.44 | -1.42 | -1.40 | -1.39 | -1.38 | -1.38 | | |
| | 200 | -1.77 | -1.72 | -1.66 | -1.64 | -1.62 | -1.60 | -1.59 | -1.55 | -1.53 | -1.51 | -1.50 | -1.49 | -1.48 | -1.46 | -1.44 | -1.43 | -1.42 | -1.42 | | |
| | | k + 1 = 2 | | | | | | | | | | 1% (CADF) | | | | | 5% (CADF) | | | | |
| p | (T,N) | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | | |
| 0 | 20 | -2.18 | -2.09 | -2.03 | -2.00 | -1.96 | -1.93 | -1.94 | -1.90 | -1.85 | -1.83 | -1.82 | -1.80 | -1.82 | -1.79 | -1.75 | -1.74 | -1.73 | -1.72 | | |
| | 30 | -2.15 | -2.08 | -2.03 | -1.99 | -1.98 | -1.96 | -1.95 | -1.90 | -1.87 | -1.85 | -1.83 | -1.82 | -1.84 | -1.79 | -1.77 | -1.76 | -1.75 | -1.74 | | |
| | 50 | -2.15 | -2.07 | -2.03 | -2.01 | -1.99 | -1.97 | -1.96 | -1.91 | -1.87 | -1.86 | -1.84 | -1.83 | -1.85 | -1.81 | -1.79 | -1.77 | -1.76 | -1.75 | | |
| | 70 | -2.16 | -2.09 | -2.05 | -2.01 | -2.00 | -1.97 | -1.95 | -1.92 | -1.88 | -1.86 | -1.86 | -1.83 | -1.85 | -1.82 | -1.79 | -1.78 | -1.77 | -1.76 | | |
| | 100 | -2.15 | -2.08 | -2.05 | -2.01 | -2.01 | -1.98 | -1.96 | -1.92 | -1.89 | -1.87 | -1.87 | -1.85 | -1.86 | -1.83 | -1.80 | -1.79 | -1.78 | -1.77 | | |
| | 200 | -2.16 | -2.09 | -2.04 | -2.04 | -2.00 | -1.98 | -1.97 | -1.93 | -1.89 | -1.88 | -1.87 | -1.85 | -1.86 | -1.83 | -1.80 | -1.79 | -1.78 | -1.77 | | |
| 1 | 20 | -2.15 | -2.09 | -2.01 | -1.97 | -1.94 | -1.90 | -1.90 | -1.85 | -1.81 | -1.77 | -1.77 | -1.75 | -1.76 | -1.74 | -1.74 | -1.69 | -1.68 | -1.66 | | |
| | 30 | -2.15 | -2.07 | -2.02 | -1.98 | -1.96 | -1.95 | -1.93 | -1.87 | -1.83 | -1.81 | -1.80 | -1.80 | -1.81 | -1.76 | -1.74 | -1.73 | -1.71 | -1.71 | | |
| | 50 | -2.14 | -2.07 | -2.03 | -2.00 | -1.99 | -1.96 | -1.95 | -1.90 | -1.86 | -1.85 | -1.83 | -1.82 | -1.84 | -1.80 | -1.77 | -1.76 | -1.75 | -1.74 | | |
| | 70 | -2.14 | -2.10 | -2.04 | -2.00 | -1.99 | -1.96 | -1.95 | -1.91 | -1.87 | -1.86 | -1.85 | -1.83 | -1.84 | -1.80 | -1.78 | -1.77 | -1.76 | -1.75 | | |
| | 100 | -2.15 | -2.09 | -2.05 | -2.02 | -2.00 | -1.97 | -1.96 | -1.92 | -1.88 | -1.86 | -1.86 | -1.84 | -1.85 | -1.82 | -1.79 | -1.78 | -1.77 | -1.76 | | |
| | 200 | -2.16 | -2.09 | -2.04 | -2.04 | -2.00 | -1.98 | -1.97 | -1.93 | -1.89 | -1.88 | -1.87 | -1.85 | -1.86 | -1.83 | -1.80 | -1.79 | -1.78 | -1.77 | | |
| 2 | 20 | -2.01 | -1.94 | -1.87 | -1.83 | -1.79 | -1.76 | -1.76 | -1.71 | -1.67 | -1.64 | -1.64 | -1.61 | -1.59 | -1.58 | -1.55 | -1.52 | -1.51 | -1.49 | | |
| | 30 | | | | | | (-1.75) | | | (-1.75) | | | | | | | | | | | |
| | 50 | -2.06 | -1.97 | -1.92 | -1.89 | -1.87 | -1.86 | -1.83 | -1.77 | -1.75 | -1.72 | -1.70 | -1.70 | -1.70 | -1.70 | -1.78 | -1.74 | -1.71 | -1.69 | -1.68 | |
| | 70 | -2.12 | -2.03 | -1.99 | -1.95 | -1.94 | -1.90 | -1.90 | -1.85 | -1.80 | -1.79 | -1.78 | -1.77 | -1.77 | -1.78 | -1.74 | -1.72 | -1.71 | -1.72 | -1.71 | |
| | 100 | -2.11 | -2.07 | -2.00 | -1.97 | -1.95 | -1.93 | -1.91 | -1.87 | -1.83 | -1.82 | -1.81 | -1.79 | -1.80 | -1.76 | -1.74 | -1.73 | -1.72 | -1.71 | -1.71 | |
| | 200 | -2.14 | -2.08 | -2.03 | -2.03 | -1.99 | -1.97 | -1.96 | -1.91 | -1.88 | -1.86 | -1.85 | -1.83 | -1.84 | -1.81 | -1.78 | -1.76 | -1.75 | -1.74 | -1.73 | |
| 3 | 20 | -2.02 | -1.91 | -1.81 | -1.78 | -1.74 | -1.72 | -1.72 | -1.67 | -1.59 | -1.56 | -1.54 | -1.52 | -1.51 | -1.51 | -1.57 | -1.53 | -1.46 | -1.45 | -1.41 | |
| | 30 | | | | | | (-1.73) | | | (-1.71) | | | (-1.66) | | | (-1.55) | (-1.53) | (-1.51) | (-1.56) | (-1.52) | (-1.45) |
| | 50 | -2.04 | -1.95 | -1.89 | -1.85 | -1.83 | -1.79 | -1.74 | -1.71 | -1.69 | -1.66 | -1.67 | -1.66 | -1.66 | -1.66 | -1.78 | -1.74 | -1.71 | -1.69 | -1.68 | |
| | 70 | -2.11 | -2.07 | -2.00 | -1.96 | -1.95 | -1.93 | -1.90 | -1.87 | -1.83 | -1.81 | -1.76 | -1.76 | -1.76 | -1.76 | -1.79 | -1.76 | -1.73 | -1.71 | -1.70 | |
| | 100 | -2.13 | -2.07 | -2.03 | -2.00 | -1.98 | -1.94 | -1.93 | -1.89 | -1.85 | -1.84 | -1.83 | -1.81 | -1.81 | -1.81 | -1.78 | -1.75 | -1.74 | -1.73 | -1.72 | |
| | 200 | -2.14 | -2.08 | -2.03 | -2.03 | -1.99 | -1.97 | -1.95 | -1.91 | -1.88 | -1.86 | -1.85 | -1.84 | -1.84 | -1.84 | -1.81 | -1.78 | -1.77 | -1.76 | -1.75 | |
| 4 | 20 | -2.29 | -2.10 | -1.92 | -1.81 | -1. | | | | | | | | | | | | | | | |

| k + 1 = 3 | | | | | | | | | | | | | | | | | | | |
|-----------|-------|--------------------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|-------|-------|---------------------|-------|-------|-------|-------|-------|
| p | (T,N) | 1% (<i>CADF</i>) | | | | | | 5% (<i>CADF</i>) | | | | | | 10% (<i>CADF</i>) | | | | | |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 |
| 0 | 20 | -2.40 | -2.34 | -2.26 | -2.23 | -2.19 | -2.17 | -2.19 | -2.14 | -2.09 | -2.06 | -2.04 | -2.02 | -2.06 | -2.02 | -1.98 | -1.97 | -1.96 | -1.94 |
| | 30 | -2.42 | -2.37 | -2.29 | -2.25 | -2.23 | -2.20 | -2.21 | -2.15 | -2.12 | -2.10 | -2.09 | -2.06 | -2.09 | -2.05 | -2.03 | -2.01 | -2.00 | -1.98 |
| | 50 | -2.44 | -2.34 | -2.30 | -2.26 | -2.24 | -2.23 | -2.24 | -2.18 | -2.14 | -2.13 | -2.11 | -2.10 | -2.13 | -2.09 | -2.05 | -2.04 | -2.03 | -2.02 |
| | 70 | -2.44 | -2.36 | -2.33 | -2.27 | -2.27 | -2.23 | -2.25 | -2.19 | -2.16 | -2.14 | -2.13 | -2.10 | -2.13 | -2.10 | -2.07 | -2.05 | -2.05 | -2.03 |
| | 100 | -2.45 | -2.36 | -2.31 | -2.28 | -2.27 | -2.25 | -2.25 | -2.20 | -2.16 | -2.15 | -2.13 | -2.12 | -2.14 | -2.10 | -2.07 | -2.07 | -2.05 | -2.04 |
| | 200 | -2.44 | -2.38 | -2.32 | -2.30 | -2.27 | -2.26 | -2.25 | -2.21 | -2.18 | -2.16 | -2.14 | -2.13 | -2.14 | -2.11 | -2.09 | -2.07 | -2.06 | -2.05 |
| 1 | 20 | -2.35 | -2.23 | -2.16 | -2.14 | -2.12 | -2.07 | -2.08 | -2.02 | -1.96 | -1.94 | -1.92 | -1.90 | -1.94 | -1.90 | -1.85 | -1.84 | -1.82 | -1.80 |
| | 30 | -2.38 | -2.28 | -2.24 | -2.20 | -2.17 | -2.14 | -2.14 | -2.09 | -2.05 | -2.02 | -2.02 | -1.99 | -2.01 | -1.98 | -1.95 | -1.93 | -1.92 | -1.90 |
| | 50 | -2.41 | -2.32 | -2.28 | -2.23 | -2.23 | -2.19 | -2.20 | -2.15 | -2.11 | -2.09 | -2.07 | -2.06 | -2.08 | -2.05 | -2.01 | -2.00 | -1.98 | -1.97 |
| | 70 | -2.42 | -2.34 | -2.31 | -2.25 | -2.26 | -2.21 | -2.21 | -2.17 | -2.13 | -2.11 | -2.10 | -2.08 | -2.10 | -2.07 | -2.04 | -2.02 | -2.00 | -2.00 |
| | 100 | -2.44 | -2.36 | -2.30 | -2.28 | -2.25 | -2.24 | -2.24 | -2.19 | -2.14 | -2.13 | -2.11 | -2.10 | -2.12 | -2.09 | -2.05 | -2.03 | -2.03 | -2.02 |
| | 200 | -2.42 | -2.38 | -2.32 | -2.30 | -2.27 | -2.26 | -2.25 | -2.21 | -2.18 | -2.16 | -2.14 | -2.13 | -2.14 | -2.11 | -2.09 | -2.07 | -2.05 | -2.04 |
| 2 | 20 | -2.20 | -2.09 | -1.98 | -1.92 | -1.86 | -1.83 | -1.89 | -1.81 | -1.73 | -1.70 | -1.68 | -1.64 | -1.72 | -1.67 | -1.61 | -1.58 | -1.56 | -1.54 |
| | 30 | -2.25 | -2.17 | -2.08 | -2.03 | -2.03 | -1.98 | -1.99 | -1.94 | -1.89 | -1.86 | -1.85 | -1.82 | -1.86 | -1.81 | -1.78 | -1.76 | -1.75 | -1.73 |
| | 50 | -2.33 | -2.24 | -2.20 | -2.16 | -2.14 | -2.11 | -2.11 | -2.06 | -2.02 | -2.00 | -1.98 | -1.97 | -1.99 | -1.96 | -1.92 | -1.91 | -1.89 | -1.88 |
| | 70 | -2.35 | -2.28 | -2.25 | -2.21 | -2.20 | -2.16 | -2.15 | -2.12 | -2.07 | -2.05 | -2.04 | -2.02 | -2.04 | -2.01 | -1.98 | -1.96 | -1.95 | -1.94 |
| | 100 | -2.40 | -2.31 | -2.26 | -2.24 | -2.22 | -2.20 | -2.20 | -2.15 | -2.10 | -2.09 | -2.07 | -2.05 | -2.08 | -2.04 | -2.01 | -2.00 | -1.99 | -1.98 |
| | 200 | -2.42 | -2.36 | -2.30 | -2.28 | -2.24 | -2.23 | -2.22 | -2.19 | -2.15 | -2.13 | -2.11 | -2.11 | -2.11 | -2.09 | -2.06 | -2.04 | -2.03 | -2.02 |
| 3 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 30 | -2.17 | -2.05 | -1.99 | -1.94 | -1.93 | -1.90 | -1.90 | -1.82 | -1.78 | -1.75 | -1.74 | -1.72 | -1.76 | -1.70 | -1.67 | -1.65 | -1.64 | -1.62 |
| | 50 | -2.31 | -2.23 | -2.15 | -2.12 | -2.11 | -2.07 | -2.06 | -2.02 | -1.97 | -1.95 | -1.93 | -1.92 | -1.94 | -1.90 | -1.86 | -1.86 | -1.84 | -1.83 |
| | 70 | -2.33 | -2.26 | -2.24 | -2.19 | -2.19 | -2.14 | -2.12 | -2.09 | -2.05 | -2.02 | -2.01 | -1.99 | -2.01 | -1.98 | -1.95 | -1.93 | -1.92 | -1.91 |
| | 100 | -2.39 | -2.29 | -2.25 | -2.23 | -2.21 | -2.18 | -2.18 | -2.13 | -2.09 | -2.07 | -2.05 | -2.04 | -2.06 | -2.02 | -2.00 | -1.98 | -1.97 | -1.96 |
| | 200 | -2.40 | -2.35 | -2.30 | -2.28 | -2.24 | -2.23 | -2.21 | -2.18 | -2.14 | -2.12 | -2.10 | -2.11 | -2.11 | -2.08 | -2.05 | -2.04 | -2.03 | -2.01 |
| 4 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 30 | -2.00 | -1.89 | -1.82 | -1.77 | -1.75 | -1.69 | -1.73 | -1.65 | -1.61 | -1.57 | -1.55 | -1.52 | -1.59 | -1.52 | -1.49 | -1.46 | -1.44 | -1.42 |
| | 50 | -2.23 | -2.15 | -2.06 | -2.04 | -2.02 | -2.00 | -1.98 | -1.94 | -1.87 | -1.86 | -1.84 | -1.83 | -1.85 | -1.80 | -1.78 | -1.76 | -1.74 | -1.73 |
| | 70 | -2.27 | -2.21 | -2.18 | -2.14 | -2.13 | -2.08 | -2.07 | -2.02 | -1.99 | -1.96 | -1.95 | -1.93 | -1.95 | -1.91 | -1.89 | -1.87 | -1.86 | -1.84 |
| | 100 | -2.35 | -2.26 | -2.22 | -2.19 | -2.17 | -2.15 | -2.14 | -2.08 | -2.05 | -2.03 | -2.01 | -2.00 | -2.02 | -1.98 | -1.95 | -1.94 | -1.93 | -1.91 |
| | 200 | -2.39 | -2.33 | -2.27 | -2.27 | -2.22 | -2.21 | -2.19 | -2.16 | -2.12 | -2.11 | -2.08 | -2.08 | -2.08 | -2.06 | -2.04 | -2.01 | -2.01 | -1.99 |
| k + 1 = 4 | | | | | | | | | | | | | | | | | | | |
| p | (T,N) | 1% (<i>CADF</i>) | | | | | | 5% (<i>CADF</i>) | | | | | | 10% (<i>CADF</i>) | | | | | |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 |
| 0 | 20 | -2.59 | -2.52 | -2.45 | -2.41 | -2.38 | -2.34 | -2.37 | -2.32 | -2.26 | -2.23 | -2.22 | -2.19 | -2.24 | -2.20 | -2.15 | -2.14 | -2.12 | -2.10 |
| | 30 | -2.64 | -2.53 | -2.48 | -2.44 | -2.43 | -2.39 | -2.41 | -2.36 | -2.32 | -2.28 | -2.28 | -2.25 | -2.30 | -2.25 | -2.22 | -2.20 | -2.19 | -2.17 |
| | 50 | -2.65 | -2.57 | -2.53 | -2.48 | -2.47 | -2.44 | -2.45 | -2.40 | -2.37 | -2.34 | -2.33 | -2.31 | -2.34 | -2.30 | -2.26 | -2.24 | -2.23 | -2.22 |
| | 70 | -2.67 | -2.59 | -2.55 | -2.50 | -2.49 | -2.46 | -2.48 | -2.42 | -2.39 | -2.36 | -2.35 | -2.33 | -2.37 | -2.30 | -2.28 | -2.27 | -2.25 | -2.25 |
| | 100 | -2.68 | -2.60 | -2.54 | -2.51 | -2.49 | -2.46 | -2.48 | -2.44 | -2.39 | -2.37 | -2.36 | -2.34 | -2.38 | -2.35 | -2.31 | -2.30 | -2.29 | -2.27 |
| | 200 | -2.68 | -2.61 | -2.56 | -2.53 | -2.52 | -2.48 | -2.49 | -2.44 | -2.41 | -2.40 | -2.38 | -2.36 | -2.40 | -2.35 | -2.32 | -2.31 | -2.31 | -2.29 |
| 1 | 20 | -2.52 | -2.38 | -2.30 | -2.25 | -2.19 | -2.18 | -2.18 | -2.11 | -2.05 | -2.02 | -2.00 | -1.96 | -2.03 | -1.98 | -1.92 | -1.91 | -1.88 | -1.86 |
| | 30 | -2.54 | -2.44 | -2.37 | -2.34 | -2.31 | -2.27 | -2.29 | -2.23 | -2.18 | -2.16 | -2.14 | -2.11 | -2.16 | -2.12 | -2.08 | -2.06 | -2.04 | -2.03 |
| | 50 | -2.59 | -2.52 | -2.46 | -2.42 | -2.40 | -2.38 | -2.39 | -2.33 | -2.30 | -2.27 | -2.25 | -2.24 | -2.28 | -2.23 | -2.20 | -2.19 | -2.17 | -2.16 |
| | 70 | -2.63 | -2.54 | -2.50 | -2.46 | -2.42 | -2.43 | -2.43 | -2.37 | -2.35 | -2.31 | -2.30 | -2.28 | -2.31 | -2.27 | -2.25 | -2.22 | -2.20 | -2.20 |
| | 100 | -2.64 | -2.58 | -2.50 | -2.49 | -2.46 | -2.42 | -2.45 | -2.41 | -2.36 | -2.34 | -2.33 | -2.31 | -2.35 | -2.31 | -2.27 | -2.26 | -2.25 | -2.24 |
| | 200 | -2.67 | -2.61 | -2.54 | -2.52 | -2.51 | -2.47 | -2.48 | -2.43 | -2.39 | -2.38 | -2.37 | -2.35 | -2.38 | -2.34 | -2.31 | -2.30 | -2.29 | -2.28 |
| 2 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 30 | -2.31 | -2.23 | -2.13 | -2.09 | -2.07 | -2.02 | -2.06 | -2.00 | -1.93 | -1.91 | -1.89 | -1.86 | -1.91 | -1.87 | -1.83 | -1.80 | -1.79 | -1.77 |
| | 50 | -2.48 | -2.41 | -2.35 | -2.30 | -2.29 | -2.26 | -2.26 | -2.21 | -2.17 | -2.14 | -2.13 | -2.11 | -2.14 | -2.10 | -2.07 | -2.06 | -2.04 | -2.03 |
| | 70 | -2.56 | -2.48 | -2.43 | -2.38 | -2.38 | -2.33 | -2.34 | -2.29 | -2.26 | -2.23 | -2.22 | -2.19 | -2.24 | -2.19 | -2.16 | -2.14 | -2.13 | -2.11 |
| | 100 | -2.60 | -2.53 | -2.45 | -2.44 | -2.41 | -2.37 | -2.39 | -2.35 | -2.30 | -2.28 | -2.27 | -2.25 | -2.29 | -2.25 | -2.22 | -2.20 | -2.19 | -2.18 |
| | 200 | -2.65 | -2.57 | -2.52 | -2.50 | -2.49 | -2.44 | -2.45 | -2.40 | -2.36 | -2.33 | -2.34 | -2.32 | -2.35 | -2.31 | -2.28 | -2.27 | -2.26 | -2.25 |
| 3 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 30 | -2.19 | -2.06 | -1.95 | -1.91 | -1.87 | -1.81 | -1.90 | -1.80 | -1.73 | -1.71 | -1.67 | -1.64 | -1.74 | -1.67 | -1.62 | -1.60 | -1.57 | -1.55 |
| | 50 | -2.42 | -2.34 | -2.25 | -2.22 | -2.21 | -2.19 | -2.19 | -2.12 | -2.08 | -2.05 | -2.04 | -2.02 | -2.06 | -2.01 | -1.97 | -1.96 | -1.94 | -1.93 |
| | 70 | -2.50 | -2.42 | -2.38 | -2.34 | -2.33 | -2.29 | -2.29 | -2.24 | -2.20 | -2.18 | -2.16 | -2.14 | -2.17 | -2.13 | -2.10 | -2.08 | -2.06 | -2.05 |
| | 100 | -2.56 | -2.49 | -2.43 | -2.40 | -2.38 | -2.35 | -2.38 | -2.31 | -2.27 | -2.25 | -2.24 | -2.22 | -2.26 | -2.22 | -2.18 | -2.16 | -2.15 | -2.14 |
| | 200 | -2.63 | -2.57 | -2.50 | -2.49 | -2.49 | -2.43 | -2.43 | -2.39 | -2.34 | -2.33 | -2.32 | -2.30 | -2.33 | -2.29 | -2.26 | -2.25 | -2.24 | -2.23 |
| | | | | | | | | | | | | | | | | | | | |

Table S1(b): Critical Values of Average of Individual Cross-Sectionally Augmented Dickey-Fuller Distribution, (Case II: Intercept Only)

| | | k + 1 = 1 | | | | | | | | | | | | | | | | | |
|---|-------|---------------|-------|-------|-------|-------|---------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|-------|
| | | 1% ($CADF$) | | | | | 5% ($CADF$) | | | | | 10% ($CADF$) | | | | | | | |
| p | (T,N) | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 |
| 0 | 20 | -2.39 | -2.32 | -2.23 | -2.20 | -2.18 | -2.14 | -2.20 | -2.15 | -2.10 | -2.08 | -2.06 | -2.04 | -2.10 | -2.06 | -2.03 | -2.01 | -2.00 | -1.99 |
| | 30 | -2.37 | -2.30 | -2.23 | -2.20 | -2.16 | -2.14 | -2.20 | -2.15 | -2.11 | -2.09 | -2.07 | -2.05 | -2.10 | -2.07 | -2.03 | -2.00 | -2.00 | -2.00 |
| | 50 | -2.36 | -2.29 | -2.22 | -2.20 | -2.16 | -2.15 | -2.20 | -2.14 | -2.11 | -2.09 | -2.07 | -2.06 | -2.11 | -2.07 | -2.04 | -2.03 | -2.02 | -2.01 |
| | 70 | -2.36 | -2.29 | -2.22 | -2.20 | -2.18 | -2.14 | -2.20 | -2.15 | -2.11 | -2.09 | -2.08 | -2.07 | -2.11 | -2.07 | -2.04 | -2.03 | -2.03 | -2.02 |
| | 100 | -2.37 | -2.29 | -2.22 | -2.20 | -2.18 | -2.14 | -2.20 | -2.16 | -2.11 | -2.09 | -2.08 | -2.07 | -2.11 | -2.08 | -2.05 | -2.03 | -2.03 | -2.02 |
| 1 | 200 | -2.35 | -2.30 | -2.23 | -2.20 | -2.18 | -2.15 | -2.20 | -2.16 | -2.12 | -2.10 | -2.08 | -2.07 | -2.11 | -2.08 | -2.05 | -2.04 | -2.03 | -2.02 |
| | 20 | -2.39 | -2.33 | -2.23 | -2.20 | -2.17 | -2.13 | -2.19 | -2.14 | -2.08 | -2.06 | -2.04 | -2.02 | -2.08 | -2.04 | -2.00 | -1.98 | -1.97 | -1.96 |
| | 30 | -2.38 | -2.30 | -2.22 | -2.19 | -2.16 | -2.14 | -2.19 | -2.13 | -2.09 | -2.07 | -2.05 | -2.03 | -2.09 | -2.05 | -2.01 | -2.01 | -1.99 | -1.98 |
| | 50 | -2.37 | -2.28 | -2.21 | -2.19 | -2.16 | -2.14 | -2.20 | -2.14 | -2.10 | -2.08 | -2.07 | -2.05 | -2.10 | -2.06 | -2.03 | -2.02 | -2.00 | -2.00 |
| | 70 | -2.35 | -2.29 | -2.22 | -2.19 | -2.18 | -2.13 | -2.20 | -2.15 | -2.10 | -2.09 | -2.08 | -2.06 | -2.10 | -2.07 | -2.03 | -2.02 | -2.02 | -2.01 |
| 2 | 100 | -2.36 | -2.29 | -2.21 | -2.20 | -2.17 | -2.14 | -2.20 | -2.15 | -2.11 | -2.09 | -2.08 | -2.06 | -2.10 | -2.07 | -2.04 | -2.03 | -2.02 | -2.01 |
| | 200 | -2.35 | -2.30 | -2.23 | -2.20 | -2.18 | -2.15 | -2.19 | -2.16 | -2.12 | -2.10 | -2.08 | -2.07 | -2.11 | -2.08 | -2.05 | -2.04 | -2.03 | -2.02 |
| | 20 | -2.28 | -2.18 | -2.11 | -2.08 | -2.07 | -2.02 | -2.07 | -2.01 | -1.95 | -1.93 | -1.92 | -1.88 | -1.95 | -1.90 | -1.87 | -1.84 | -1.84 | -1.81 |
| | 30 | -2.31 | -2.22 | -2.15 | -2.12 | -2.08 | -2.05 | -2.11 | -2.05 | -2.01 | -1.99 | -1.96 | -1.95 | -2.01 | -1.96 | -1.93 | -1.92 | -1.90 | -1.88 |
| | 50 | -2.32 | -2.23 | -2.17 | -2.15 | -2.12 | -2.09 | -2.15 | -2.10 | -2.05 | -2.03 | -2.02 | -2.00 | -2.05 | -2.01 | -1.98 | -1.96 | -1.95 | -1.94 |
| 3 | 70 | -2.32 | -2.25 | -2.18 | -2.16 | -2.15 | -2.10 | -2.16 | -2.11 | -2.06 | -2.05 | -2.04 | -2.02 | -2.06 | -2.03 | -1.99 | -1.98 | -1.97 | -1.97 |
| | 100 | -2.33 | -2.27 | -2.19 | -2.17 | -2.15 | -2.12 | -2.17 | -2.12 | -2.09 | -2.06 | -2.04 | -2.02 | -2.05 | -2.02 | -2.00 | -2.00 | -1.99 | -1.99 |
| | 200 | -2.34 | -2.29 | -2.21 | -2.19 | -2.16 | -2.13 | -2.18 | -2.15 | -2.10 | -2.09 | -2.07 | -2.06 | -2.10 | -2.06 | -2.04 | -2.02 | -2.01 | -2.01 |
| | 20 | -2.26 | -2.17 | -2.10 | -2.05 | -2.02 | -1.99 | -2.04 | -1.97 | -1.91 | -1.89 | -1.87 | -1.84 | -1.92 | -1.86 | -1.82 | -1.80 | -1.78 | -1.77 |
| | 30 | -2.28 | -2.21 | -2.15 | -2.11 | -2.07 | -2.05 | -2.09 | -2.03 | -1.99 | -1.96 | -1.94 | -1.93 | -1.98 | -1.93 | -1.90 | -1.89 | -1.87 | -1.86 |
| 4 | 50 | -2.31 | -2.24 | -2.17 | -2.14 | -2.11 | -2.09 | -2.14 | -2.08 | -2.04 | -2.02 | -2.00 | -1.99 | -2.04 | -2.00 | -1.96 | -1.95 | -1.94 | -1.93 |
| | 70 | -2.32 | -2.25 | -2.19 | -2.16 | -2.14 | -2.10 | -2.16 | -2.10 | -2.06 | -2.04 | -2.02 | -2.00 | -2.06 | -2.02 | -1.99 | -1.97 | -1.97 | -1.96 |
| | 100 | -2.33 | -2.27 | -2.20 | -2.16 | -2.15 | -2.12 | -2.16 | -2.12 | -2.08 | -2.06 | -2.05 | -2.03 | -2.08 | -2.04 | -2.01 | -2.00 | -1.99 | -1.98 |
| | 200 | -2.34 | -2.29 | -2.20 | -2.19 | -2.16 | -2.13 | -2.18 | -2.15 | -2.10 | -2.08 | -2.07 | -2.05 | -2.09 | -2.06 | -2.03 | -2.02 | -2.01 | -2.00 |
| | 20 | -2.15 | -2.03 | -1.94 | -1.90 | -1.88 | -1.83 | -1.91 | -1.83 | -1.77 | -1.74 | -1.72 | -1.69 | -1.78 | -1.72 | -1.68 | -1.66 | -1.64 | -1.61 |
| 4 | 30 | -2.21 | -2.12 | -2.06 | -2.02 | -1.99 | -1.96 | -2.00 | -1.95 | -1.90 | -1.87 | -1.85 | -1.83 | -1.89 | -1.85 | -1.81 | -1.80 | -1.78 | -1.76 |
| | 50 | -2.27 | -2.19 | -2.13 | -2.10 | -2.06 | -2.04 | -2.09 | -2.03 | -1.99 | -1.97 | -1.95 | -1.94 | -1.99 | -1.95 | -1.91 | -1.88 | -1.88 | -1.88 |
| | 70 | -2.29 | -2.22 | -2.16 | -2.12 | -2.11 | -2.06 | -2.13 | -2.07 | -2.02 | -2.01 | -2.00 | -1.97 | -2.03 | -1.99 | -1.95 | -1.94 | -1.93 | -1.92 |
| | 100 | -2.31 | -2.25 | -2.17 | -2.14 | -2.12 | -2.09 | -2.14 | -2.09 | -2.05 | -2.04 | -2.03 | -2.01 | -2.05 | -2.01 | -1.98 | -1.97 | -1.96 | -1.95 |
| | 200 | -2.33 | -2.27 | -2.20 | -2.18 | -2.15 | -2.12 | -2.17 | -2.13 | -2.09 | -2.07 | -2.05 | -2.04 | -2.08 | -2.05 | -2.02 | -2.01 | -2.00 | -1.99 |
| | | k + 1 = 2 | | | | | | | | | | | | | | | | | |
| | | 1% ($CADF$) | | | | | 5% ($CADF$) | | | | | 10% ($CADF$) | | | | | | | |
| p | (T,N) | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 |
| 0 | 20 | -2.64 | -2.56 | -2.51 | -2.45 | -2.42 | -2.39 | -2.44 | -2.38 | -2.34 | -2.30 | -2.29 | -2.26 | -2.33 | -2.28 | -2.25 | -2.22 | -2.21 | -2.19 |
| | 30 | -2.64 | -2.55 | -2.48 | -2.46 | -2.44 | -2.40 | -2.45 | -2.39 | -2.35 | -2.33 | -2.31 | -2.29 | -2.34 | -2.30 | -2.27 | -2.25 | -2.24 | -2.22 |
| | 50 | -2.62 | -2.56 | -2.49 | -2.46 | -2.44 | -2.42 | -2.45 | -2.40 | -2.36 | -2.34 | -2.32 | -2.30 | -2.35 | -2.32 | -2.28 | -2.27 | -2.26 | -2.25 |
| | 70 | -2.64 | -2.55 | -2.49 | -2.46 | -2.45 | -2.43 | -2.46 | -2.40 | -2.37 | -2.35 | -2.33 | -2.32 | -2.36 | -2.32 | -2.28 | -2.27 | -2.26 | -2.26 |
| | 100 | -2.63 | -2.56 | -2.51 | -2.47 | -2.45 | -2.43 | -2.47 | -2.41 | -2.38 | -2.35 | -2.34 | -2.32 | -2.37 | -2.33 | -2.29 | -2.28 | -2.28 | -2.26 |
| 1 | 200 | -2.63 | -2.54 | -2.45 | -2.41 | -2.40 | -2.35 | -2.38 | -2.32 | -2.27 | -2.23 | -2.22 | -2.19 | -2.26 | -2.20 | -2.17 | -2.14 | -2.12 | -2.10 |
| | 20 | -2.63 | -2.54 | -2.45 | -2.41 | -2.40 | -2.35 | -2.38 | -2.32 | -2.27 | -2.23 | -2.22 | -2.19 | -2.25 | -2.20 | -2.17 | -2.14 | -2.13 | -2.13 |
| | 30 | -2.61 | -2.52 | -2.46 | -2.43 | -2.41 | -2.36 | -2.41 | -2.34 | -2.30 | -2.28 | -2.26 | -2.24 | -2.29 | -2.24 | -2.22 | -2.21 | -2.18 | -2.17 |
| | 50 | -2.62 | -2.55 | -2.48 | -2.44 | -2.43 | -2.40 | -2.43 | -2.37 | -2.33 | -2.31 | -2.30 | -2.28 | -2.33 | -2.29 | -2.25 | -2.24 | -2.23 | -2.21 |
| | 70 | -2.62 | -2.54 | -2.47 | -2.45 | -2.43 | -2.41 | -2.45 | -2.39 | -2.35 | -2.33 | -2.32 | -2.29 | -2.35 | -2.30 | -2.27 | -2.26 | -2.24 | -2.23 |
| 2 | 100 | -2.62 | -2.54 | -2.50 | -2.46 | -2.44 | -2.41 | -2.45 | -2.40 | -2.37 | -2.34 | -2.32 | -2.31 | -2.36 | -2.32 | -2.28 | -2.27 | -2.26 | -2.26 |
| | 200 | -2.62 | -2.55 | -2.50 | -2.47 | -2.44 | -2.43 | -2.46 | -2.42 | -2.38 | -2.36 | -2.35 | -2.33 | -2.37 | -2.34 | -2.31 | -2.29 | -2.29 | -2.27 |
| | 20 | -2.44 | -2.34 | -2.25 | -2.21 | -2.17 | -2.12 | -2.18 | -2.11 | -2.05 | -2.01 | -1.99 | -1.96 | -2.03 | -1.98 | -1.94 | -1.91 | -1.89 | -1.88 |
| | 30 | -2.50 | -2.41 | -2.33 | -2.30 | -2.28 | -2.24 | -2.27 | -2.21 | -2.17 | -2.14 | -2.12 | -2.10 | -2.15 | -2.11 | -2.07 | -2.05 | -2.04 | -2.03 |
| | 50 | -2.55 | -2.49 | -2.40 | -2.37 | -2.35 | -2.32 | -2.35 | -2.31 | -2.25 | -2.22 | -2.20 | -2.20 | -2.25 | -2.22 | -2.19 | -2.17 | -2.15 | -2.13 |
| 2 | 70 | -2.57 | -2.49 | -2.43 | -2.41 | -2.39 | -2.36 | -2.39 | -2.34 | -2.29 | -2.27 | -2.26 | -2.24 | -2.30 | -2.25 | -2.22 | -2.20 | -2.19 | -2.18 |
| | 100 | -2.59 | -2.51 | -2.46 | -2.42 | -2.40 | -2.38 | -2.41 | -2.37 | -2.33 | -2.30 | -2.29 | -2.27 | -2.32 | -2.28 | -2.26 | -2.23 | -2.22 | -2.20 |
| | 200 | -2.61 | -2.54 | -2.48 | -2.46 | -2.43 | -2.40 | -2.43 | -2.39 | -2.35 | -2.34 | -2.33 | -2.30 | -2.35 | -2.31 | -2.28 | -2.27 | -2.26 | -2.24 |
| | 20 | -2.45 | -2.32 | -2.21 | -2.13 | -2.09 | -2.02 | -2.12 | -2.05 | -1.97 | -1.90 | -1.89 | -1.85 | -1.96 | -1.90 | -1.83 | -1.80 | -1.77 | -1.74 |
| | 30 | -2.43 | -2.34 | -2.28 | -2.24 | -2.21 | -2.18 | -2.21 | -2.13 | -2.09 | -2.07 | -2.05 | -2.03 | -2.09 | -2.02 | -1.99 | -1.97 | -1.96 | -1.94 |
| 3 | 50 | -2.53 | -2.45 | -2.38 | -2.36 | -2.33 | -2.30 | -2.32 | -2.27 | -2.22 | -2.20 | -2.19 | -2.17 | -2.21 | -2.18 | -2.13 | -2.12 | -2.11 | -2.09 |
| | 70 | -2.56 | -2.47 | -2.42 | -2.39 | -2.37 | -2.35 | -2.37 | -2.31 | -2.27 | -2.25 | -2.24 | -2.22 | -2.27 | -2.23 | -2.19 | -2.18 | -2.16 | -2.15 |
| | 100 | -2.59 | -2.50 | -2.46 | -2.42 | -2.39 | -2.37 | -2.39 | -2.35 | -2.32 | -2.29 | -2.27 | -2.25 | -2.30 | -2.26 | -2.24 | -2.21 | -2.20 | -2.19 |
| | | | | | | | | | | | | | | | | | | | |

| | | k + 1 = 3 | | | | | | | | | | k + 1 = 4 | | | | | | | | | | | | | |
|---|-------|---------------------|-------|-------|-------|-------|---------------------|-------|-------|-------|-------|----------------------|-------|-------|-------|-------|---------------------|-------|-------|----|----|----|----|-----|-----|
| p | (T,N) | 1% (\bar{CADF}) | | | | | 5% (\bar{CADF}) | | | | | 10% (\bar{CADF}) | | | | | 1% (\bar{CADF}) | | | | | | | | |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 |
| 0 | 20 | -2.84 (-2.77) | -2.78 | -2.68 | -2.65 | -2.59 | -2.57 | -2.60 | -2.56 | -2.49 | -2.48 | -2.45 | -2.43 | -2.48 | -2.45 | -2.40 | -2.39 | -2.37 | -2.35 | | | | | | |
| | 30 | -2.84 (-2.76) | -2.76 | -2.68 | -2.65 | -2.63 | -2.59 | -2.64 | -2.58 | -2.53 | -2.51 | -2.50 | -2.47 | -2.53 | -2.49 | -2.45 | -2.43 | -2.42 | -2.40 | | | | | | |
| | 50 | -2.84 (-2.77) | -2.77 | -2.70 | -2.67 | -2.66 | -2.62 | -2.66 | -2.61 | -2.56 | -2.55 | -2.53 | -2.51 | -2.57 | -2.52 | -2.48 | -2.48 | -2.46 | -2.45 | | | | | | |
| | 70 | -2.86 (-2.78) | -2.78 | -2.72 | -2.68 | -2.67 | -2.64 | -2.67 | -2.62 | -2.58 | -2.56 | -2.55 | -2.53 | -2.58 | -2.54 | -2.50 | -2.49 | -2.48 | -2.47 | | | | | | |
| | 100 | -2.85 (-2.79) | -2.79 | -2.72 | -2.69 | -2.67 | -2.64 | -2.68 | -2.64 | -2.59 | -2.57 | -2.56 | -2.54 | -2.59 | -2.56 | -2.52 | -2.50 | -2.49 | -2.48 | | | | | | |
| | 200 | -2.87 (-2.80) | -2.80 | -2.74 | -2.70 | -2.68 | -2.66 | -2.69 | -2.65 | -2.61 | -2.58 | -2.56 | -2.55 | -2.60 | -2.57 | -2.53 | -2.52 | -2.50 | -2.49 | | | | | | |
| 1 | 20 | -2.78 (-2.75) | -2.68 | -2.55 | -2.53 | -2.48 | -2.46 | -2.47 | -2.40 | -2.33 | -2.32 | -2.30 | -2.27 | -2.33 | -2.27 | -2.23 | -2.21 | -2.19 | -2.17 | | | | | | |
| | 30 | -2.76 (-2.68) | -2.69 | -2.61 | -2.57 | -2.56 | -2.51 | -2.54 | -2.49 | -2.43 | -2.41 | -2.39 | -2.36 | -2.42 | -2.38 | -2.34 | -2.32 | -2.31 | -2.29 | | | | | | |
| | 50 | -2.80 (-2.75) | -2.74 | -2.67 | -2.64 | -2.61 | -2.58 | -2.61 | -2.56 | -2.51 | -2.50 | -2.47 | -2.45 | -2.50 | -2.47 | -2.43 | -2.42 | -2.40 | -2.38 | | | | | | |
| | 70 | -2.83 (-2.75) | -2.75 | -2.68 | -2.65 | -2.64 | -2.60 | -2.65 | -2.59 | -2.53 | -2.52 | -2.51 | -2.49 | -2.54 | -2.49 | -2.46 | -2.44 | -2.42 | -2.42 | | | | | | |
| | 100 | -2.84 (-2.78) | -2.78 | -2.70 | -2.67 | -2.65 | -2.62 | -2.65 | -2.61 | -2.57 | -2.54 | -2.53 | -2.51 | -2.56 | -2.52 | -2.49 | -2.47 | -2.46 | -2.45 | | | | | | |
| | 200 | -2.85 (-2.80) | -2.80 | -2.72 | -2.69 | -2.67 | -2.65 | -2.69 | -2.64 | -2.60 | -2.57 | -2.56 | -2.54 | -2.59 | -2.56 | -2.52 | -2.50 | -2.49 | -2.48 | | | | | | |
| 2 | 20 | -2.71 (-2.50) | -2.51 | -2.33 | -2.27 | -2.21 | -2.16 | -2.29 | -2.17 | -2.08 | -2.03 | -1.99 | -1.95 | -2.08 | -2.01 | -1.93 | -1.90 | -1.87 | -1.84 | | | | | | |
| | 30 | -2.58 (-2.57) | -2.50 | -2.41 | -2.36 | -2.34 | -2.30 | -2.35 | -2.30 | -2.22 | -2.20 | -2.18 | -2.15 | -2.21 | -2.17 | -2.12 | -2.10 | -2.10 | -2.07 | | | | | | |
| | 50 | -2.70 (-2.57) | -2.63 | -2.55 | -2.53 | -2.50 | -2.47 | -2.50 | -2.45 | -2.39 | -2.39 | -2.37 | -2.34 | -2.38 | -2.35 | -2.30 | -2.30 | -2.28 | -2.26 | | | | | | |
| | 70 | -2.75 (-2.75) | -2.68 | -2.61 | -2.58 | -2.57 | -2.53 | -2.57 | -2.51 | -2.46 | -2.44 | -2.44 | -2.41 | -2.45 | -2.42 | -2.38 | -2.37 | -2.36 | -2.34 | | | | | | |
| | 100 | -2.79 (-2.79) | -2.72 | -2.65 | -2.62 | -2.60 | -2.57 | -2.60 | -2.56 | -2.51 | -2.49 | -2.47 | -2.46 | -2.51 | -2.46 | -2.44 | -2.42 | -2.40 | -2.39 | | | | | | |
| | 200 | -2.84 (-2.84) | -2.77 | -2.69 | -2.66 | -2.65 | -2.62 | -2.67 | -2.62 | -2.57 | -2.54 | -2.53 | -2.51 | -2.56 | -2.53 | -2.49 | -2.48 | -2.46 | -2.45 | | | | | | |
| 3 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | | |
| | 30 | -2.47 (-2.46) | -2.37 | -2.27 | -2.21 | -2.19 | -2.16 | -2.20 | -2.14 | -2.07 | -2.04 | -2.02 | -2.00 | -2.07 | -2.02 | -1.96 | -1.94 | -1.93 | -1.90 | | | | | | |
| | 50 | -2.64 (-2.64) | -2.57 | -2.49 | -2.48 | -2.44 | -2.41 | -2.43 | -2.38 | -2.32 | -2.31 | -2.29 | -2.27 | -2.31 | -2.28 | -2.23 | -2.23 | -2.21 | -2.19 | | | | | | |
| | 70 | -2.72 (-2.72) | -2.65 | -2.56 | -2.54 | -2.53 | -2.49 | -2.51 | -2.47 | -2.42 | -2.40 | -2.39 | -2.36 | -2.41 | -2.37 | -2.33 | -2.32 | -2.31 | -2.30 | | | | | | |
| | 100 | -2.77 (-2.77) | -2.69 | -2.63 | -2.60 | -2.58 | -2.54 | -2.58 | -2.53 | -2.49 | -2.46 | -2.45 | -2.43 | -2.48 | -2.44 | -2.41 | -2.39 | -2.37 | -2.36 | | | | | | |
| | 200 | -2.82 (-2.82) | -2.76 | -2.68 | -2.65 | -2.63 | -2.61 | -2.65 | -2.61 | -2.55 | -2.53 | -2.52 | -2.50 | -2.55 | -2.52 | -2.48 | -2.46 | -2.44 | -2.44 | | | | | | |
| 4 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | | |
| | 30 | -2.28 (-2.26) | -2.15 | -2.04 | -2.01 | -1.97 | -1.89 | -2.00 | -1.90 | -1.83 | -1.81 | -1.78 | -1.72 | -1.85 | -1.77 | -1.72 | -1.70 | -1.68 | -1.64 | | | | | | |
| | 50 | -2.53 (-2.53) | -2.45 | -2.38 | -2.35 | -2.31 | -2.28 | -2.31 | -2.25 | -2.20 | -2.19 | -2.16 | -2.14 | -2.19 | -2.15 | -2.10 | -2.10 | -2.08 | -2.06 | | | | | | |
| | 70 | -2.64 (-2.64) | -2.59 | -2.50 | -2.48 | -2.45 | -2.41 | -2.45 | -2.38 | -2.34 | -2.32 | -2.31 | -2.29 | -2.33 | -2.29 | -2.25 | -2.24 | -2.23 | -2.21 | | | | | | |
| | 100 | -2.71 (-2.71) | -2.65 | -2.58 | -2.55 | -2.53 | -2.49 | -2.53 | -2.47 | -2.44 | -2.41 | -2.39 | -2.37 | -2.43 | -2.38 | -2.35 | -2.33 | -2.32 | -2.30 | | | | | | |
| | 200 | -2.80 (-2.80) | -2.74 | -2.66 | -2.63 | -2.60 | -2.58 | -2.62 | -2.58 | -2.53 | -2.51 | -2.49 | -2.47 | -2.52 | -2.49 | -2.45 | -2.43 | -2.42 | -2.41 | | | | | | |

Notes: The critical values are obtained by stochastic simulation. The data generating process is $y_{it} = y_{it-1} + u_{it}$, where $u_{it} \sim iidN(0, 1)$, with $y_{i0} = 0$, and the j^{th} element of the $k \times 1$ vector of additional regressors, x_{it} , are generated as $x_{ijt} = x_{ijt-1} + v_{ijt}$, where $v_{ijt} \sim iidN(0, 1)$ and $x_{ij0} = 0$, $i = 1, 2, \dots, N$; $j = 1, 2, \dots, k$; $t = -p, \dots, T$. The $CADF_i$ statistic is computed as the t -ratio of the coefficient on y_{it-1} of the regression of Δy_{it} on y_{it-1} , $w'_{it,p} = (\bar{z}'_{t-1}, \Delta \bar{z}'_t, \Delta \bar{z}'_{t-1}, \dots, \Delta \bar{z}'_{t-p}; \Delta y_{i,t-1}, \dots, \Delta y_{i,t-p})$, including an intercept, with $\bar{z}_t = N^{-1} \sum_{i=1}^N (y_{it}, x'_{it})'$, and the average of the individual statistics is computed as $\bar{CADF} = N^{-1} \sum_{i=1}^N CADF_i$. $(100 \times \alpha)$ % critical values are obtained as the $1 - \alpha$ quantiles of \bar{CADF} for $\alpha = 0.01, 0.05, 0.1$. The critical values for the truncated version of the test statistics are indicated in parentheses if they differ from the non-truncated ones. Computations are based on 10000 replications.

Table S1(c): Critical Values of Average of Individual Cross-Sectionally Augmented Dickey-Fuller Distribution, (Case III: Intercept and Linear Trend)

| | | k + 1 = 1 | | | | | | | | | | | | | | | | | | | |
|--------|-----|-----------|-------|-------|-------|-------|-----------|-------|-------|-------|-------|------------|-------|-------|-------|-------|-------|-------|-------|--|--|
| | | 1% (CADF) | | | | | 5% (CADF) | | | | | 10% (CADF) | | | | | | | | | |
| p(T,N) | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | | |
| 0 | 20 | -2.92 | -2.84 | -2.76 | -2.72 | -2.69 | -2.65 | -2.73 | -2.68 | -2.62 | -2.60 | -2.57 | -2.55 | -2.63 | -2.59 | -2.54 | -2.52 | -2.51 | -2.49 | | |
| | 30 | -2.88 | -2.79 | -2.73 | -2.69 | -2.66 | -2.62 | -2.71 | -2.66 | -2.61 | -2.58 | -2.56 | -2.54 | -2.62 | -2.58 | -2.55 | -2.53 | -2.51 | -2.49 | | |
| | 50 | -2.86 | -2.79 | -2.70 | -2.69 | -2.66 | -2.62 | -2.70 | -2.66 | -2.61 | -2.59 | -2.57 | -2.55 | -2.62 | -2.59 | -2.55 | -2.53 | -2.52 | -2.50 | | |
| | 70 | -2.87 | -2.78 | -2.71 | -2.68 | -2.65 | -2.62 | -2.70 | -2.65 | -2.61 | -2.59 | -2.56 | -2.54 | -2.63 | -2.59 | -2.55 | -2.54 | -2.51 | -2.50 | | |
| | 100 | -2.84 | -2.78 | -2.71 | -2.68 | -2.66 | -2.62 | -2.70 | -2.65 | -2.61 | -2.59 | -2.57 | -2.54 | -2.63 | -2.59 | -2.55 | -2.53 | -2.52 | -2.50 | | |
| 1 | 20 | -2.96 | -2.87 | -2.80 | -2.74 | -2.71 | -2.69 | -2.73 | -2.68 | -2.63 | -2.60 | -2.58 | -2.55 | -2.62 | -2.57 | -2.53 | -2.51 | -2.49 | -2.47 | | |
| | 30 | -2.90 | -2.81 | -2.74 | -2.70 | -2.68 | -2.64 | -2.71 | -2.66 | -2.61 | -2.58 | -2.56 | -2.54 | -2.61 | -2.57 | -2.53 | -2.52 | -2.50 | -2.48 | | |
| | 50 | -2.87 | -2.80 | -2.71 | -2.69 | -2.67 | -2.63 | -2.70 | -2.66 | -2.61 | -2.59 | -2.57 | -2.54 | -2.62 | -2.58 | -2.54 | -2.52 | -2.51 | -2.49 | | |
| | 70 | -2.87 | -2.79 | -2.71 | -2.68 | -2.65 | -2.62 | -2.71 | -2.65 | -2.60 | -2.58 | -2.56 | -2.54 | -2.62 | -2.58 | -2.54 | -2.53 | -2.51 | -2.50 | | |
| | 100 | -2.83 | -2.79 | -2.71 | -2.68 | -2.66 | -2.62 | -2.70 | -2.65 | -2.61 | -2.58 | -2.57 | -2.54 | -2.62 | -2.59 | -2.55 | -2.53 | -2.52 | -2.50 | | |
| 2 | 20 | -2.80 | -2.71 | -2.61 | -2.58 | -2.56 | -2.53 | -2.56 | -2.50 | -2.45 | -2.42 | -2.41 | -2.38 | -2.44 | -2.39 | -2.36 | -2.33 | -2.33 | -2.29 | | |
| | 30 | -2.82 | -2.72 | -2.65 | -2.62 | -2.60 | -2.56 | -2.62 | -2.56 | -2.51 | -2.49 | -2.47 | -2.44 | -2.51 | -2.46 | -2.43 | -2.41 | -2.39 | -2.38 | | |
| | 50 | -2.82 | -2.75 | -2.67 | -2.64 | -2.62 | -2.58 | -2.65 | -2.60 | -2.55 | -2.53 | -2.51 | -2.49 | -2.55 | -2.51 | -2.48 | -2.47 | -2.45 | -2.44 | | |
| | 70 | -2.82 | -2.76 | -2.67 | -2.65 | -2.61 | -2.59 | -2.66 | -2.61 | -2.57 | -2.55 | -2.53 | -2.51 | -2.58 | -2.54 | -2.50 | -2.49 | -2.47 | -2.46 | | |
| | 100 | -2.81 | -2.76 | -2.68 | -2.66 | -2.63 | -2.59 | -2.67 | -2.62 | -2.58 | -2.56 | -2.54 | -2.52 | -2.59 | -2.55 | -2.52 | -2.50 | -2.49 | -2.47 | | |
| 3 | 20 | -2.78 | -2.68 | -2.58 | -2.54 | -2.51 | -2.47 | -2.52 | -2.46 | -2.40 | -2.37 | -2.35 | -2.32 | -2.39 | -2.34 | -2.29 | -2.28 | -2.25 | -2.23 | | |
| | 30 | -2.80 | -2.72 | -2.64 | -2.62 | -2.58 | -2.55 | -2.60 | -2.54 | -2.48 | -2.47 | -2.45 | -2.43 | -2.48 | -2.43 | -2.40 | -2.38 | -2.37 | -2.35 | | |
| | 50 | -2.81 | -2.76 | -2.68 | -2.64 | -2.62 | -2.58 | -2.64 | -2.59 | -2.54 | -2.52 | -2.50 | -2.48 | -2.54 | -2.51 | -2.47 | -2.45 | -2.44 | -2.42 | | |
| | 70 | -2.81 | -2.75 | -2.68 | -2.66 | -2.61 | -2.59 | -2.65 | -2.61 | -2.57 | -2.55 | -2.53 | -2.51 | -2.57 | -2.53 | -2.50 | -2.48 | -2.47 | -2.46 | | |
| | 100 | -2.82 | -2.76 | -2.68 | -2.66 | -2.63 | -2.60 | -2.67 | -2.62 | -2.58 | -2.55 | -2.54 | -2.52 | -2.59 | -2.55 | -2.52 | -2.50 | -2.48 | -2.47 | | |
| 4 | 20 | -2.60 | -2.52 | -2.39 | -2.35 | -2.31 | -2.26 | -2.35 | -2.26 | -2.19 | -2.17 | -2.15 | -2.11 | -2.21 | -2.15 | -2.09 | -2.07 | -2.06 | -2.02 | | |
| | 30 | -2.68 | -2.60 | -2.53 | -2.50 | -2.47 | -2.43 | -2.47 | -2.42 | -2.37 | -2.35 | -2.33 | -2.30 | -2.36 | -2.31 | -2.28 | -2.26 | -2.25 | -2.22 | | |
| | 50 | -2.75 | -2.69 | -2.62 | -2.58 | -2.57 | -2.52 | -2.57 | -2.53 | -2.49 | -2.46 | -2.44 | -2.43 | -2.48 | -2.45 | -2.41 | -2.39 | -2.37 | -2.36 | | |
| | 70 | -2.78 | -2.72 | -2.64 | -2.62 | -2.58 | -2.57 | -2.62 | -2.56 | -2.52 | -2.50 | -2.48 | -2.47 | -2.52 | -2.49 | -2.45 | -2.44 | -2.42 | -2.41 | | |
| | 100 | -2.80 | -2.72 | -2.67 | -2.63 | -2.61 | -2.57 | -2.64 | -2.60 | -2.55 | -2.53 | -2.51 | -2.49 | -2.55 | -2.52 | -2.49 | -2.47 | -2.46 | -2.44 | | |
| 5 | 20 | -2.78 | -2.74 | -2.64 | -2.60 | -2.56 | -2.52 | -2.57 | -2.49 | -2.42 | -2.38 | -2.37 | -2.34 | -2.42 | -2.36 | -2.31 | -2.27 | -2.26 | -2.24 | | |
| | 30 | -2.80 | -2.76 | -2.68 | -2.64 | -2.60 | -2.56 | -2.85 | -2.79 | -2.74 | -2.71 | -2.67 | -2.63 | -2.73 | -2.69 | -2.65 | -2.63 | -2.62 | -2.60 | | |
| | 50 | -2.81 | -2.76 | -2.68 | -2.64 | -2.60 | -2.56 | -2.84 | -2.79 | -2.74 | -2.71 | -2.67 | -2.63 | -2.73 | -2.69 | -2.65 | -2.63 | -2.62 | -2.60 | | |
| | 70 | -2.81 | -2.75 | -2.68 | -2.64 | -2.60 | -2.56 | -2.85 | -2.79 | -2.74 | -2.71 | -2.67 | -2.63 | -2.73 | -2.69 | -2.65 | -2.63 | -2.62 | -2.60 | | |
| | 100 | -2.82 | -2.76 | -2.68 | -2.64 | -2.60 | -2.56 | -2.86 | -2.81 | -2.76 | -2.73 | -2.69 | -2.65 | -2.74 | -2.70 | -2.66 | -2.64 | -2.62 | -2.60 | | |
| 6 | 20 | -2.83 | -2.79 | -2.71 | -2.67 | -2.63 | -2.59 | -2.88 | -2.84 | -2.78 | -2.74 | -2.70 | -2.66 | -2.74 | -2.70 | -2.66 | -2.63 | -2.61 | -2.59 | | |
| | 30 | -2.85 | -2.81 | -2.73 | -2.69 | -2.65 | -2.61 | -2.89 | -2.85 | -2.79 | -2.75 | -2.71 | -2.67 | -2.75 | -2.71 | -2.67 | -2.64 | -2.62 | -2.60 | | |
| | 50 | -2.86 | -2.82 | -2.74 | -2.70 | -2.66 | -2.62 | -2.90 | -2.86 | -2.81 | -2.77 | -2.73 | -2.69 | -2.76 | -2.72 | -2.68 | -2.65 | -2.63 | -2.61 | | |
| | 70 | -2.86 | -2.82 | -2.74 | -2.70 | -2.66 | -2.62 | -2.91 | -2.87 | -2.82 | -2.78 | -2.74 | -2.70 | -2.77 | -2.73 | -2.69 | -2.66 | -2.64 | -2.62 | | |
| | 100 | -2.87 | -2.83 | -2.75 | -2.71 | -2.67 | -2.63 | -2.92 | -2.88 | -2.83 | -2.79 | -2.75 | -2.71 | -2.78 | -2.74 | -2.70 | -2.67 | -2.65 | -2.63 | | |
| 7 | 20 | -2.88 | -2.84 | -2.76 | -2.72 | -2.68 | -2.64 | -2.93 | -2.89 | -2.84 | -2.80 | -2.76 | -2.72 | -2.80 | -2.76 | -2.72 | -2.69 | -2.66 | -2.64 | | |
| | 30 | -2.89 | -2.85 | -2.77 | -2.73 | -2.69 | -2.65 | -2.94 | -2.90 | -2.85 | -2.81 | -2.77 | -2.73 | -2.82 | -2.78 | -2.74 | -2.71 | -2.68 | -2.66 | | |
| | 50 | -2.89 | -2.85 | -2.77 | -2.73 | -2.69 | -2.65 | -2.95 | -2.91 | -2.86 | -2.82 | -2.78 | -2.74 | -2.83 | -2.79 | -2.75 | -2.72 | -2.69 | -2.67 | | |
| | 70 | -2.89 | -2.85 | -2.77 | -2.73 | -2.69 | -2.65 | -2.96 | -2.92 | -2.87 | -2.83 | -2.79 | -2.75 | -2.84 | -2.80 | -2.76 | -2.73 | -2.70 | -2.68 | | |
| | 100 | -2.90 | -2.86 | -2.78 | -2.74 | -2.70 | -2.66 | -2.97 | -2.93 | -2.88 | -2.84 | -2.80 | -2.76 | -2.85 | -2.81 | -2.77 | -2.74 | -2.71 | -2.69 | | |
| 8 | 20 | -2.90 | -2.86 | -2.78 | -2.74 | -2.70 | -2.66 | -2.98 | -2.94 | -2.89 | -2.85 | -2.81 | -2.77 | -2.86 | -2.82 | -2.78 | -2.75 | -2.72 | -2.70 | | |
| | 30 | -2.91 | -2.87 | -2.79 | -2.75 | -2.71 | -2.67 | -2.99 | -2.95 | -2.91 | -2.87 | -2.83 | -2.79 | -2.88 | -2.84 | -2.80 | -2.77 | -2.74 | -2.72 | | |
| | 50 | -2.91 | -2.87 | -2.79 | -2.75 | -2.71 | -2.67 | -3.00 | -2.96 | -2.92 | -2.88 | -2.84 | -2.80 | -2.89 | -2.85 | -2.81 | -2.78 | -2.75 | -2.73 | | |
| | 70 | -2.91 | -2.87 | -2.79 | -2.75 | -2.71 | -2.67 | -3.01 | -2.97 | -2.93 | -2.89 | -2.85 | -2.81 | -2.90 | -2.86 | -2.82 | -2.79 | -2.76 | -2.74 | | |
| | 100 | -2.92 | -2.88 | -2.80 | -2.76 | -2.72 | -2.68 | -3.02 | -2.98 | -2.94 | -2.90 | -2.86 | -2.82 | -2.91 | -2.87 | -2.83 | -2.80 | -2.77 | -2.75 | | |
| 9 | 20 | -2.92 | -2.88 | -2.80 | -2.76 | -2.72 | -2.68 | -3.03 | -2.99 | -2.95 | -2.91 | -2.87 | -2.83 | -2.92 | -2.88 | -2.84 | -2.81 | -2.78 | -2.76 | | |
| | 30 | -2.93 | -2.89 | -2.81 | -2.77 | -2.73 | -2.69 | -3.04 | -3.00 | -2.96 | -2.92 | -2.88 | -2.84 | -2.93 | -2.89 | -2.85 | -2.82 | -2.79 | -2.77 | | |
| | 50 | -2.93 | -2.89 | -2.81 | -2.77 | -2.73 | -2.69 | -3.05 | -3.01 | -2.97 | -2.93 | -2.89 | -2.85 | -2.94 | -2.90 | -2.86 | -2.83 | -2.80 | -2.78 | | |
| | 70 | -2.93 | -2.89 | -2.81 | -2.77 | -2.73 | -2.69 | -3.06 | -3.02 | -2.98 | -2.94 | -2.90 | -2.86 | -2.95 | -2.91 | -2.87 | -2.84 | -2.81 | -2.79 | | |
| | 100 | -2.94 | -2.90 | -2.82 | -2.78 | -2.74 | -2.70 | -3.07 | -3.03 | -2.99 | -2.95 | -2.91 | -2.87 | -2.96 | -2.92 | -2.88 | -2.85 | -2.82 | -2.80 | | |
| 10 | 20 | -2.94 | -2.90 | -2.82 | -2.78 | -2.74 | -2.70 | -3.08 | -3.04 | -3.00 | -2.96 | -2.92 | -2.88 | -2.97 | -2.93 | -2.89 | -2.85 | -2.82 | -2.80 | | |
| | 30 | -2.95 | -2.91 | -2.83 | -2.79 | -2.75 | -2.71 | -3.09 | -3.05 | -3.01 | -2.97 | -2.93 | -2.89 | -2.98 | -2.94 | -2.90 | -2.86 | -2.83 | -2.81 | | |
| | 50 | -2.95 | -2.91 | -2.83 | -2.79 | -2.75 | -2.71 | -3.10 | -3.06 | -3.02 | -2.98 | -2.94 | -2.90 | -3.09 | -3.05 | -3.01 | -2.97 | -2.93 | -2.91 | | |
| | 70 | -2.95 | -2.91 | -2.83 | -2.79 | -2.75 | -2.71 | -3.11 | -3.07 | -3.03 | -2.99 | -2.95 | -2.91 | -3.10 | -3.06 | -3.02 | -2.98 | | | | |

(Continued)

| | | k + 1 = 3 | | | | | | | | | | k + 1 = 4 | | | | | | | | | | k + 1 = 3 | | | | | | | | | |
|---|-------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----|
| | | 1% ($CADF$) | | | | | 5% ($CADF$) | | | | | 10% ($CADF$) | | | | | 1% ($CADF$) | | | | | 5% ($CADF$) | | | | | 10% ($CADF$) | | | | |
| p | (T,N) | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 |
| 0 | 20 | -3.26 (-3.14) | -3.15 (-3.08) | -3.09 (-3.03) | -3.04 (-2.96) | -3.00 (-3.00) | -2.97 (-2.96) | -3.01 (-3.00) | -2.95 (-2.93) | -2.89 (-2.93) | -2.86 (-2.93) | -2.84 (-2.92) | -2.82 (-2.92) | -2.89 (-2.88) | -2.84 (-2.83) | -2.79 (-2.78) | -2.77 (-2.77) | -2.77 (-2.76) | -2.75 (-2.75) | -2.75 (-2.74) | -2.73 (-2.73) | -2.77 (-2.76) | -2.84 (-2.83) | -2.79 (-2.78) | -2.77 (-2.76) | -2.79 (-2.78) | -2.86 (-2.85) | -2.86 (-2.85) | -2.86 (-2.85) | | |
| | 30 | -3.25 (-3.22) | -3.15 (-3.17) | -3.07 (-3.11) | -3.03 (-3.08) | -3.02 (-3.06) | -2.97 (-3.03) | -3.04 (-3.01) | -2.98 (-3.01) | -2.93 (-2.96) | -2.90 (-2.94) | -2.88 (-2.92) | -2.86 (-2.90) | -2.84 (-2.93) | -2.89 (-2.93) | -2.84 (-2.93) | -2.82 (-2.93) | |
| | 50 | -3.23 (-3.25) | -3.16 (-3.25) | -3.09 (-3.25) | -3.06 (-3.25) | -3.03 (-3.25) | -3.01 (-3.25) | -3.01 (-3.25) | -2.96 (-3.04) | -2.96 (-3.04) | -2.94 (-3.04) | -2.92 (-3.04) | -2.90 (-3.04) | -2.88 (-3.04) | -2.86 (-3.04) | -2.84 (-3.04) | | |
| | 70 | -3.25 (-3.25) | -3.17 (-3.17) | -3.10 (-3.11) | -3.06 (-3.08) | -3.04 (-3.06) | -3.01 (-3.02) | -3.01 (-3.02) | -2.97 (-3.00) | -2.97 (-3.00) | -2.93 (-3.00) | -2.90 (-3.00) | -2.88 (-3.00) | -2.86 (-3.00) | -2.84 (-3.00) | | | |
| | 100 | -3.25 (-3.25) | -3.17 (-3.17) | -3.11 (-3.12) | -3.08 (-3.08) | -3.06 (-3.06) | -3.02 (-3.03) | -3.02 (-3.03) | -2.97 (-3.00) | -2.97 (-3.00) | -2.93 (-3.00) | -2.90 (-3.00) | -2.88 (-3.00) | -2.86 (-3.00) | -2.84 (-3.00) | | | |
| | 200 | -3.25 (-3.25) | -3.18 (-3.25) | -3.12 (-3.18) | -3.08 (-3.08) | -3.06 (-3.06) | -3.03 (-3.03) | -3.03 (-3.03) | -2.97 (-3.00) | -2.97 (-3.00) | -2.93 (-3.00) | -2.90 (-3.00) | -2.88 (-3.00) | -2.86 (-3.00) | -2.84 (-3.00) | | | |
| 1 | 20 | -3.18 (-3.15) | -3.06 (-3.03) | -2.97 (-2.95) | -2.87 (-2.84) | -2.84 (-2.83) | -2.84 (-2.83) | -2.88 (-2.85) | -2.78 (-2.76) | -2.71 (-2.68) | -2.68 (-2.67) | -2.66 (-2.64) | -2.64 (-2.63) | -2.71 (-2.69) | -2.64 (-2.62) | -2.58 (-2.57) | -2.57 (-2.55) | -2.55 (-2.54) | | | |
| | 30 | -3.16 (-3.16) | -3.08 (-3.08) | -3.00 (-3.00) | -2.95 (-2.95) | -2.93 (-2.93) | -2.93 (-2.93) | -2.92 (-2.90) | -2.87 (-2.82) | -2.82 (-2.78) | -2.78 (-2.75) | -2.77 (-2.75) | -2.75 (-2.73) | -2.75 (-2.73) | -2.81 (-2.79) | -2.76 (-2.74) | -2.69 (-2.67) | | | |
| | 50 | -3.21 (-3.21) | -3.11 (-3.14) | -3.04 (-3.04) | -3.01 (-3.01) | -2.99 (-2.99) | -2.96 (-2.96) | -2.96 (-2.96) | -2.96 (-2.96) | -2.94 (-2.94) | -2.91 (-2.91) | -2.89 (-2.89) | -2.87 (-2.87) | -2.87 (-2.87) | -2.95 (-2.95) | -2.84 (-2.84) | | | | |
| | 70 | -3.21 (-3.21) | -3.14 (-3.14) | -3.07 (-3.07) | -3.03 (-3.03) | -3.01 (-3.01) | -2.98 (-2.98) | -2.98 (-2.98) | -2.96 (-2.96) | -2.94 (-2.94) | -2.92 (-2.92) | -2.90 (-2.90) | -2.88 (-2.88) | -2.86 (-2.86) | | | |
| | 100 | -3.24 (-3.24) | -3.15 (-3.15) | -3.09 (-3.09) | -3.05 (-3.05) | -3.03 (-3.03) | -3.00 (-3.00) | -3.00 (-3.00) | -2.96 (-2.96) | -2.94 (-2.94) | -2.92 (-2.92) | -2.90 (-2.90) | -2.88 (-2.88) | -2.86 (-2.86) | | | | |
| | 200 | -3.25 (-3.25) | -3.17 (-3.17) | -3.12 (-3.12) | -3.08 (-3.08) | -3.05 (-3.05) | -3.02 (-3.02) | -3.02 (-3.02) | -2.97 (-3.00) | -2.97 (-3.00) | -2.95 (-3.00) | -2.93 (-3.00) | -2.92 (-3.00) | -2.90 (-3.00) | -2.89 (-3.00) | | | |
| 2 | 20 | -3.43 (-2.85) | -3.17 (-2.70) | -2.92 (-2.59) | -2.82 (-2.47) | -2.82 (-2.40) | -2.82 (-2.40) | -2.77 (-2.50) | -2.76 (-2.41) | -2.76 (-2.31) | -2.76 (-2.26) | -2.76 (-2.23) | -2.76 (-2.19) | -2.71 (-2.32) | -2.71 (-2.26) | -2.71 (-2.17) | -2.71 (-2.14) | -2.71 (-2.12) | -2.71 (-2.08) | -2.71 (-2.45) | | |
| | 30 | -2.92 (-2.92) | -2.86 (-2.76) | -2.76 (-2.71) | -2.71 (-2.64) | -2.71 (-2.64) | -2.71 (-2.64) | -2.68 (-2.68) | -2.63 (-2.63) | -2.63 (-2.55) | -2.63 (-2.51) | -2.63 (-2.49) | -2.63 (-2.49) | -2.56 (-2.56) | -2.56 (-2.51) | -2.56 (-2.46) | -2.56 (-2.43) | -2.56 (-2.40) | -2.56 (-2.37) | -2.56 (-2.45) | | | |
| | 50 | -3.09 (-3.14) | -3.00 (-3.14) | -2.93 (-3.04) | -2.90 (-3.04) | -2.88 (-3.04) | -2.88 (-3.04) | -2.88 (-2.88) | -2.82 (-2.82) | | | | |
| | 70 | -3.14 (-3.14) | -3.06 (-3.06) | -3.00 (-3.00) | -2.95 (-2.95) | -2.93 (-2.93) | -2.93 (-2.93) | -2.92 (-2.92) | -2.86 (-2.86) | -2.86 (-2.86) | -2.85 (-2.85) | | | | |
| | 100 | -3.18 (-3.18) | -3.10 (-3.10) | -3.04 (-3.04) | -3.02 (-3.02) | -3.00 (-3.00) | -3.00 (-3.00) | -2.99 (-2.99) | -2.93 (-2.93) | -2.93 (-2.93) | -2.92 (-2.92) | -2.90 (-2.90) | -2.88 (-2.88) | -2.86 (-2.86) | | | |
| 3 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 30 | -2.63 (-2.63) | -2.47 (-2.40) | -2.34 (-2.30) | -2.28 (-2.24) | -2.28 (-2.18) | -2.28 (-2.15) | -2.26 (-2.26) | -2.25 (-2.25) | -2.25 (-2.07) | -2.25 (-2.04) | -2.25 (-1.99) | -2.25 (-1.96) | -2.25 (-2.10) | -2.25 (-2.01) | -2.25 (-1.96) | -2.25 (-1.93) | -2.25 (-1.90) | -2.25 (-1.87) | -2.25 (-2.78) | | |
| | 50 | -3.39 (-3.31) | -3.26 (-3.22) | -3.16 (-3.22) | -3.14 (-3.17) | -3.10 (-3.12) | -3.10 (-3.07) | -3.10 (-3.07) | -3.09 (-3.09) | -3.04 (-3.04) | -3.01 (-3.01) | -3.00 (-3.00) | -2.96 (-2.96) | -2.95 (-2.95) | -2.93 (-2.93) | | | |
| | 70 | -3.41 (-3.31) | -3.32 (-3.22) | -3.25 (-3.17) | -3.24 (-3.12) | -3.19 (-3.09) | -3.17 (-3.07) | -3.17 (-3.07) | -3.16 (-3.16) | -3.11 (-3.11) | -3.11 (-3.06) | -3.06 (-3.06) | -3.04 (-3.04) | -3.04 (-3.04) | -3.04 (-3.04) | -3.04<br | | | | | | | | | | | | | | | |

Table S2(a) : Critical Values of Individual Cross-Sectionally Augmented Dickey-Fuller Distribution (Case I: No Intercept and No Trend)

| | | $k+1=1$ | | | | | | | | | | | | | | | | | |
|---|-------|-----------------------|-------|-------|-------|-------|-----------------------|-------|-------|-------|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|
| p | (T,N) | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | | | |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 |
| 0 | 20 | -3.44 | -3.60 | -3.42 | -3.49 | -3.52 | -3.48 | -2.68 | -2.72 | -2.68 | -2.67 | -2.72 | -2.72 | -2.29 | -2.30 | -2.29 | -2.27 | -2.30 | -2.32 |
| | 30 | -3.36 | -3.42 | -3.40 | -3.36 | -3.38 | -3.34 | -2.66 | -2.62 | -2.61 | -2.66 | -2.67 | -2.66 | -2.27 | -2.27 | -2.24 | -2.28 | -2.29 | -2.28 |
| | 50 | -3.34 | -3.33 | -3.35 | -3.31 | -3.27 | -3.31 | -2.63 | -2.63 | -2.62 | -2.62 | -2.61 | -2.62 | -2.27 | -2.26 | -2.27 | -2.24 | -2.28 | -2.27 |
| | 70 | -3.28 | -3.27 | -3.31 | -3.24 | -3.30 | -3.30 | -2.61 | -2.61 | -2.61 | -2.64 | -2.65 | -2.63 | -2.26 | -2.27 | -2.28 | -2.28 | -2.26 | -2.27 |
| | 100 | -3.25 | -3.20 | -3.25 | -3.25 | -3.27 | -3.21 | -2.63 | -2.61 | -2.61 | -2.59 | -2.58 | -2.58 | -2.28 | -2.30 | -2.27 | -2.25 | -2.26 | -2.26 |
| | 200 | -3.20 | -3.27 | -3.22 | -3.21 | -3.19 | -3.23 | -2.58 | -2.66 | -2.59 | -2.61 | -2.58 | -2.58 | -2.26 | -2.29 | -2.27 | -2.28 | -2.25 | -2.23 |
| 1 | 20 | -3.65 | -3.58 | -3.57 | -3.51 | -3.58 | -3.57 | -2.73 | -2.73 | -2.69 | -2.71 | -2.72 | -2.73 | -2.32 | -2.32 | -2.29 | -2.30 | -2.29 | -2.32 |
| | 30 | -3.45 | -3.43 | -3.37 | -3.37 | -3.38 | -3.37 | -2.66 | -2.64 | -2.64 | -2.64 | -2.66 | -2.64 | -2.28 | -2.29 | -2.28 | -2.27 | -2.31 | -2.29 |
| | 50 | -3.33 | -3.34 | -3.34 | -3.31 | -3.26 | -3.37 | -2.65 | -2.63 | -2.64 | -2.64 | -2.60 | -2.63 | -2.27 | -2.27 | -2.27 | -2.27 | -2.27 | -2.27 |
| | 70 | -3.27 | -3.27 | -3.36 | -3.28 | -3.32 | -3.32 | -2.61 | -2.61 | -2.63 | -2.62 | -2.62 | -2.60 | -2.25 | -2.27 | -2.27 | -2.27 | -2.27 | -2.27 |
| | 100 | -3.28 | -3.26 | -3.26 | -3.28 | -3.21 | -3.20 | -2.63 | -2.62 | -2.62 | -2.60 | -2.60 | -2.56 | -2.27 | -2.29 | -2.28 | -2.26 | -2.28 | -2.26 |
| | 200 | -3.21 | -3.20 | -3.22 | -3.19 | -3.17 | -3.20 | -2.58 | -2.62 | -2.58 | -2.60 | -2.57 | -2.58 | -2.26 | -2.29 | -2.26 | -2.27 | -2.25 | -2.24 |
| 2 | 20 | -3.54 | -3.65 | -3.51 | -3.54 | -3.48 | -3.52 | -2.68 | -2.66 | -2.64 | -2.66 | -2.65 | -2.67 | -2.26 | -2.25 | -2.23 | -2.22 | -2.23 | -2.27 |
| | 30 | -3.36 | -3.36 | -3.35 | -3.39 | -3.33 | -3.34 | -2.62 | -2.64 | -2.63 | -2.58 | -2.60 | -2.60 | -2.23 | -2.22 | -2.22 | -2.23 | -2.23 | -2.23 |
| | 50 | -3.25 | -3.32 | -3.35 | -3.26 | -3.23 | -3.33 | -2.63 | -2.60 | -2.62 | -2.60 | -2.58 | -2.61 | -2.25 | -2.24 | -2.25 | -2.25 | -2.22 | -2.23 |
| | 70 | -3.24 | -3.23 | -3.32 | -3.24 | -3.26 | -3.29 | -2.56 | -2.57 | -2.60 | -2.61 | -2.57 | -2.58 | -2.23 | -2.24 | -2.26 | -2.25 | -2.25 | -2.27 |
| | 100 | -3.26 | -3.19 | -3.29 | -3.25 | -3.22 | -3.21 | -2.60 | -2.60 | -2.62 | -2.61 | -2.59 | -2.56 | -2.26 | -2.28 | -2.26 | -2.25 | -2.24 | -2.25 |
| | 200 | -3.22 | -3.20 | -3.19 | -3.22 | -3.14 | -3.24 | -2.57 | -2.62 | -2.57 | -2.61 | -2.57 | -2.57 | -2.25 | -2.27 | -2.25 | -2.25 | -2.25 | -2.24 |
| 3 | 20 | -3.70 | -3.71 | -3.64 | -3.64 | -3.71 | -3.50 | -2.72 | -2.72 | -2.69 | -2.68 | -2.70 | -2.68 | -2.26 | -2.28 | -2.24 | -2.24 | -2.26 | -2.24 |
| | 30 | -3.44 | -3.44 | -3.38 | -3.42 | -3.35 | -3.40 | -2.62 | -2.61 | -2.62 | -2.64 | -2.61 | -2.59 | -2.23 | -2.20 | -2.23 | -2.22 | -2.23 | -2.21 |
| | 50 | -3.32 | -3.25 | -3.28 | -3.21 | -3.26 | -3.33 | -2.61 | -2.59 | -2.60 | -2.58 | -2.56 | -2.63 | -2.26 | -2.24 | -2.25 | -2.25 | -2.22 | -2.27 |
| | 70 | -3.21 | -3.20 | -3.29 | -3.28 | -3.24 | -3.25 | -2.58 | -2.57 | -2.60 | -2.59 | -2.60 | -2.60 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| | 100 | -3.23 | -3.22 | -3.30 | -3.27 | -3.25 | -3.20 | -2.60 | -2.59 | -2.60 | -2.58 | -2.58 | -2.58 | -2.25 | -2.25 | -2.25 | -2.26 | -2.24 | -2.25 |
| | 200 | -3.19 | -3.27 | -3.24 | -3.23 | -3.14 | -3.22 | -2.57 | -2.62 | -2.56 | -2.60 | -2.56 | -2.58 | -2.26 | -2.28 | -2.25 | -2.27 | -2.24 | -2.24 |
| 4 | 20 | -3.69 | -3.73 | -3.57 | -3.65 | -3.75 | -3.60 | -2.65 | -2.68 | -2.70 | -2.66 | -2.68 | -2.65 | -2.19 | -2.20 | -2.22 | -2.19 | -2.21 | -2.18 |
| | 30 | -3.33 | -3.36 | -3.38 | -3.36 | -3.35 | -3.30 | -2.58 | -2.56 | -2.59 | -2.58 | -2.59 | -2.56 | -2.18 | -2.16 | -2.19 | -2.19 | -2.18 | -2.19 |
| | 50 | -3.27 | -3.26 | -3.23 | -3.25 | -3.28 | -3.29 | -2.58 | -2.55 | -2.56 | -2.57 | -2.55 | -2.57 | -2.23 | -2.19 | -2.24 | -2.20 | -2.19 | -2.23 |
| | 70 | -3.24 | -3.20 | -3.26 | -3.33 | -3.25 | -3.26 | -2.57 | -2.55 | -2.59 | -2.58 | -2.56 | -2.60 | -2.20 | -2.21 | -2.24 | -2.21 | -2.22 | -2.25 |
| | 100 | -3.22 | -3.15 | -3.23 | -3.24 | -3.22 | -3.17 | -2.57 | -2.59 | -2.57 | -2.56 | -2.56 | -2.56 | -2.24 | -2.24 | -2.22 | -2.23 | -2.21 | -2.23 |
| | 200 | -3.15 | -3.22 | -3.23 | -3.17 | -3.17 | -3.22 | -2.56 | -2.63 | -2.56 | -2.61 | -2.56 | -2.56 | -2.25 | -2.28 | -2.23 | -2.27 | -2.24 | -2.23 |
| | | $k+1=2$ | | | | | | | | | | | | | | | | | |
| p | (T,N) | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | | | |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 |
| 0 | 20 | -4.07 | -4.08 | -3.98 | -4.05 | -4.04 | -4.14 | -3.13 | -3.18 | -3.13 | -3.16 | -3.15 | -3.17 | -2.71 | -2.72 | -2.71 | -2.74 | -2.73 | -2.75 |
| | 30 | -3.86 | -3.90 | -3.78 | -3.88 | -3.88 | -3.89 | -3.08 | -3.06 | -3.05 | -3.09 | -3.10 | -3.10 | -2.69 | -2.69 | -2.69 | -2.69 | -2.68 | -2.71 |
| | 50 | -3.71 | -3.72 | -3.72 | -3.76 | -3.69 | -3.75 | -3.05 | -3.00 | -3.04 | -3.02 | -3.03 | -3.04 | -2.69 | -2.66 | -2.69 | -2.67 | -2.68 | -2.67 |
| | 70 | -3.69 | -3.79 | -3.69 | -3.65 | -3.79 | -3.77 | -3.00 | -3.06 | -3.07 | -3.06 | -3.04 | -3.04 | -2.67 | -2.72 | -2.70 | -2.70 | -2.70 | -2.68 |
| | 100 | -3.71 | -3.70 | -3.68 | -3.67 | -3.66 | -3.70 | -3.03 | -3.05 | -3.00 | -3.03 | -3.00 | -3.00 | -2.66 | -2.69 | -2.66 | -2.66 | -2.67 | -2.68 |
| | 200 | -3.69 | -3.73 | -3.66 | -3.65 | -3.66 | -3.63 | -3.00 | -3.03 | -3.02 | -3.02 | -3.01 | -3.01 | -2.68 | -2.71 | -2.69 | -2.68 | -2.68 | -2.64 |
| 1 | 20 | -4.25 | -4.24 | -4.05 | -4.31 | -4.22 | -4.22 | -3.20 | -3.21 | -3.17 | -3.19 | -3.17 | -3.20 | -2.72 | -2.73 | -2.71 | -2.73 | -2.67 | -2.74 |
| | 30 | -3.87 | -3.95 | -3.83 | -3.91 | -3.94 | -3.82 | -3.10 | -3.06 | -3.07 | -3.11 | -3.09 | -3.10 | -2.70 | -2.67 | -2.69 | -2.70 | -2.68 | -2.71 |
| | 50 | -3.77 | -3.74 | -3.72 | -3.73 | -3.77 | -3.80 | -3.04 | -3.03 | -3.03 | -3.02 | -3.05 | -3.05 | -2.70 | -2.67 | -2.68 | -2.65 | -2.66 | -2.66 |
| | 70 | -3.69 | -3.77 | -3.72 | -3.75 | -3.74 | -3.70 | -3.00 | -3.05 | -3.04 | -3.04 | -3.05 | -3.03 | -2.66 | -2.70 | -2.68 | -2.70 | -2.68 | -2.66 |
| | 100 | -3.68 | -3.70 | -3.65 | -3.66 | -3.61 | -3.71 | -3.06 | -3.00 | -3.00 | -3.01 | -3.03 | -3.01 | -2.69 | -2.67 | -2.66 | -2.68 | -2.67 | -2.67 |
| | 200 | -3.69 | -3.67 | -3.63 | -3.64 | -3.62 | -3.63 | -3.01 | -3.00 | -2.98 | -3.00 | -3.02 | -3.00 | -2.66 | -2.67 | -2.66 | -2.67 | -2.66 | -2.66 |
| 2 | 20 | -4.29 | -4.15 | -4.28 | -4.33 | -4.14 | -4.30 | -3.10 | -3.14 | -3.14 | -3.18 | -3.10 | -3.11 | -2.60 | -2.66 | -2.63 | -2.65 | -2.61 | -2.61 |
| | 30 | -3.89 | -3.84 | -3.89 | -3.99 | -3.84 | -3.86 | -3.01 | -3.00 | -3.06 | -3.04 | -3.02 | -3.02 | -2.62 | -2.60 | -2.64 | -2.63 | -2.60 | -2.65 |
| | 50 | -3.73 | -3.71 | -3.74 | -3.69 | -3.73 | -3.79 | -3.00 | -3.01 | -3.01 | -3.00 | -3.00 | -3.00 | -2.63 | -2.64 | -2.63 | -2.61 | -2.63 | -2.63 |
| | 70 | -3.67 | -3.74 | -3.71 | -3.73 | -3.74 | -3.70 | -3.00 | -3.02 | -2.99 | -3.04 | -3.01 | -3.01 | -2.63 | -2.66 | -2.64 | -2.66 | -2.64 | -2.64 |
| | 100 | -3.63 | -3.61 | -3.62 | -3.59 | -3.63 | -3.65 | -3.00 | -3.00 | -3.00 | -3.02 | -3.00 | -3.00 | -2.66 | -2.66 | -2.65 | -2.66 | -2.65 | -2.65 |
| | 200 | -3.65 | -3.65 | -3.63 | -3.64 | -3.62 | -3.63 | -3.01 | -3.00 | -2.98 | -3.00 | -3.02 | -3.00 | -2.66 | -2.67 | -2.66 | -2.67 | -2.66 | -2.65 |
| 3 | 20 | -4.86 | -4.85 | -4.87 | -4.88 | -4.86 | -4.85 | -3.22 | -3.37 | -3.34 | -3.30 | -3.33 | -3.31 | -2.65 | -2.76 | -2.72 | -2.69 | -2.71 | -2.68 |
| | 30 | -3.91 | -3.90 | -3.98 | -3.98 | -3.93 | -3.97 | -3.04 | -3.02 | -3.05 | -3.07 | -3.04 | -3.05 | -2.62 | -2.59 | -2.65 | -2.63 | -2.59 | -2.65 |
| | 50 | -3.70 | -3.70 | -3.77 | -3.69 | -3.76 | -3.75 | -3.03 | -3.00 | -3.01 | -2.99 | -3.02 | -3.02 | -2.65 | -2.63 | -2.60 | -2.59 | -2.63 | -2.63 |
| | 70 | -3.66 | -3.72 | -3.72 | -3.74 | -3.74 | -3.70 | -2.99 | -3.02 | -3.01 | -3.02 | -2.98 | -2.98 | -2.64 | -2.64 | -2.63 | -2.64 | -2.65 | |

| | | k + 1 = 3 | | | | | | | | | | | | | | | | | | | | |
|-----------|-------|-----------------------|-------|-------|-------|-------|-----------------------|-------|-------|-------|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|----|-----|-----|
| p | (T,N) | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | 20 | 30 | 50 | 70 | 100 | 200 |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | | | |
| 0 | 20 | -4.64 | -4.42 | -4.55 | -4.54 | -4.54 | -4.50 | -3.51 | -3.51 | -3.53 | -3.48 | -3.51 | -3.44 | -3.02 | -3.01 | -3.07 | -3.02 | -3.05 | -2.99 | | | |
| | 30 | -4.24 | -4.15 | -4.28 | -4.28 | -4.24 | -4.24 | -3.43 | -3.38 | -3.40 | -3.43 | -3.46 | -3.42 | -3.00 | -2.97 | -3.00 | -3.02 | -3.04 | -3.01 | | | |
| | 50 | -4.16 | -4.10 | -4.14 | -4.08 | -4.09 | -4.09 | -3.40 | -3.39 | -3.37 | -3.37 | -3.35 | -3.40 | -3.02 | -3.00 | -2.99 | -2.99 | -2.96 | -3.02 | | | |
| | 70 | -4.05 | -4.07 | -4.07 | -4.06 | -4.13 | -4.09 | -3.36 | -3.37 | -3.36 | -3.35 | -3.39 | -3.39 | -3.00 | -3.01 | -3.00 | -3.00 | -3.03 | -3.01 | | | |
| | 100 | -4.01 | -4.07 | -3.94 | -4.06 | -4.03 | -4.05 | -3.35 | -3.37 | -3.35 | -3.36 | -3.33 | -3.35 | -3.02 | -3.01 | -2.99 | -2.99 | -3.02 | -2.97 | | | |
| | 200 | -4.05 | -3.99 | -3.93 | -3.95 | -3.92 | -3.97 | -3.37 | -3.33 | -3.33 | -3.33 | -3.33 | -3.37 | -3.03 | -2.99 | -2.99 | -2.99 | -3.00 | -3.00 | | | |
| 1 | 20 | -4.83 | -4.84 | -4.79 | -4.82 | -4.85 | -4.70 | -3.57 | -3.62 | -3.55 | -3.52 | -3.52 | -3.55 | -2.99 | -3.04 | -3.02 | -2.99 | -3.00 | -2.99 | | | |
| | 30 | -4.35 | -4.20 | -4.28 | -4.37 | -4.36 | -4.27 | -3.37 | -3.36 | -3.40 | -3.41 | -3.45 | -3.41 | -2.97 | -2.93 | -2.94 | -2.97 | -3.00 | -2.97 | | | |
| | 50 | -4.10 | -4.07 | -4.17 | -4.07 | -4.05 | -4.11 | -3.40 | -3.37 | -3.37 | -3.35 | -3.32 | -3.35 | -2.97 | -2.98 | -2.97 | -2.98 | -2.93 | -2.99 | | | |
| | 70 | -4.02 | -4.12 | -4.06 | -4.02 | -4.14 | -4.10 | -3.34 | -3.34 | -3.33 | -3.36 | -3.40 | -3.38 | -2.98 | -2.99 | -2.99 | -2.99 | -3.02 | -3.00 | | | |
| | 100 | -3.99 | -4.05 | -4.04 | -4.02 | -4.07 | -4.00 | -3.31 | -3.36 | -3.35 | -3.36 | -3.32 | -3.32 | -2.98 | -3.00 | -2.98 | -2.98 | -3.01 | -2.98 | | | |
| | 200 | -4.00 | -4.00 | -3.95 | -3.94 | -3.93 | -3.98 | -3.38 | -3.32 | -3.32 | -3.32 | -3.34 | -3.36 | -3.03 | -2.97 | -2.99 | -2.99 | -2.99 | -3.00 | | | |
| 2 | 20 | -5.77 | -5.78 | -5.37 | -5.51 | -5.53 | -5.56 | -3.69 | -3.72 | -3.60 | -3.77 | -3.63 | -3.62 | -2.93 | -2.97 | -2.88 | -2.98 | -2.89 | -2.90 | | | |
| | 30 | -4.33 | -4.23 | -4.23 | -4.34 | -4.43 | -4.23 | -3.34 | -3.29 | -3.34 | -3.38 | -3.34 | -3.31 | -2.86 | -2.84 | -2.89 | -2.91 | -2.86 | -2.85 | | | |
| | 50 | -4.02 | -4.12 | -4.22 | -4.10 | -4.00 | -4.05 | -3.31 | -3.32 | -3.33 | -3.30 | -3.25 | -3.30 | -2.91 | -2.93 | -2.91 | -2.92 | -2.88 | -2.92 | | | |
| | 70 | -3.98 | -4.10 | -4.04 | -3.94 | -4.13 | -4.08 | -3.31 | -3.34 | -3.31 | -3.31 | -3.35 | -3.35 | -2.92 | -2.95 | -2.96 | -2.95 | -2.97 | -2.97 | | | |
| | 100 | -3.91 | -4.06 | -3.98 | -3.98 | -4.01 | -4.07 | -3.30 | -3.33 | -3.34 | -3.32 | -3.30 | -3.30 | -2.94 | -2.97 | -2.99 | -2.96 | -2.97 | -2.93 | | | |
| | 200 | -4.03 | -3.92 | -3.89 | -3.93 | -3.95 | -4.01 | -3.36 | -3.31 | -3.29 | -3.32 | -3.31 | -3.34 | -3.03 | -2.97 | -2.96 | -2.97 | -2.98 | -2.97 | | | |
| 3 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 30 | -4.58 | -4.48 | -4.53 | -4.51 | -4.63 | -4.53 | -3.34 | -3.31 | -3.35 | -3.39 | -3.34 | -3.38 | -2.80 | -2.80 | -2.85 | -2.87 | -2.79 | -2.85 | | | |
| | 50 | -4.05 | -4.10 | -4.14 | -4.12 | -4.06 | -4.09 | -3.30 | -3.33 | -3.31 | -3.30 | -3.28 | -3.29 | -2.90 | -2.91 | -2.87 | -2.90 | -2.87 | -2.90 | | | |
| | 70 | -4.08 | -4.09 | -3.99 | -4.02 | -4.06 | -4.03 | -3.27 | -3.30 | -3.31 | -3.28 | -3.35 | -3.33 | -2.91 | -2.94 | -2.92 | -2.92 | -2.93 | -2.95 | | | |
| | 100 | -3.91 | -4.02 | -4.03 | -3.95 | -3.99 | -3.97 | -3.27 | -3.30 | -3.32 | -3.29 | -3.31 | -3.30 | -2.94 | -2.96 | -2.96 | -2.96 | -2.96 | -2.93 | | | |
| | 200 | -4.01 | -3.94 | -3.95 | -3.90 | -3.91 | -4.01 | -3.38 | -3.30 | -3.29 | -3.33 | -3.33 | -3.32 | -3.02 | -2.97 | -2.95 | -2.97 | -2.97 | -2.96 | | | |
| 4 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 30 | -4.83 | -4.71 | -4.93 | -4.98 | -4.86 | -4.73 | -3.34 | -3.35 | -3.46 | -3.45 | -3.39 | -3.37 | -2.74 | -2.72 | -2.79 | -2.81 | -2.77 | -2.78 | | | |
| | 50 | -4.11 | -4.04 | -4.10 | -4.10 | -4.03 | -4.01 | -3.29 | -3.24 | -3.26 | -3.27 | -3.23 | -3.28 | -2.86 | -2.82 | -2.83 | -2.83 | -2.81 | -2.83 | | | |
| | 70 | -4.05 | -3.98 | -4.03 | -3.94 | -4.03 | -4.06 | -3.23 | -3.29 | -3.26 | -3.22 | -3.32 | -3.31 | -2.88 | -2.91 | -2.90 | -2.86 | -2.92 | -2.89 | | | |
| | 100 | -3.92 | -3.98 | -3.94 | -3.95 | -4.03 | -3.97 | -3.24 | -3.28 | -3.26 | -3.30 | -3.29 | -3.24 | -2.90 | -2.91 | -2.92 | -2.89 | -2.92 | -2.90 | | | |
| | 200 | -3.99 | -3.92 | -3.91 | -3.95 | -3.92 | -3.96 | -3.35 | -3.29 | -3.28 | -3.29 | -3.31 | -3.32 | -3.00 | -2.95 | -2.93 | -2.97 | -2.96 | -2.96 | | | |
| k + 1 = 4 | | | | | | | | | | | | | | | | | | | | | | |
| p | (T,N) | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | 20 | 30 | 50 | 70 | 100 | 200 |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | | | |
| 0 | 20 | -5.06 | -5.03 | -4.98 | -5.01 | -4.97 | -4.96 | -3.80 | -3.82 | -3.79 | -3.78 | -3.80 | -3.78 | -3.28 | -3.26 | -3.28 | -3.30 | -3.29 | -3.28 | | | |
| | 30 | -4.64 | -4.56 | -4.63 | -4.52 | -4.59 | -4.62 | -3.76 | -3.65 | -3.70 | -3.68 | -3.74 | -3.70 | -3.28 | -3.22 | -3.24 | -3.27 | -3.30 | -3.25 | | | |
| | 50 | -4.44 | -4.41 | -4.38 | -4.37 | -4.31 | -4.45 | -3.66 | -3.65 | -3.63 | -3.61 | -3.57 | -3.64 | -3.26 | -3.26 | -3.24 | -3.23 | -3.25 | -3.25 | | | |
| | 70 | -4.29 | -4.37 | -4.32 | -4.22 | -4.38 | -4.36 | -3.63 | -3.67 | -3.65 | -3.60 | -3.62 | -3.63 | -3.27 | -3.30 | -3.27 | -3.25 | -3.27 | -3.26 | | | |
| | 100 | -4.31 | -4.31 | -4.29 | -4.29 | -4.28 | -4.34 | -3.62 | -3.62 | -3.61 | -3.64 | -3.57 | -3.63 | -3.25 | -3.25 | -3.24 | -3.26 | -3.23 | -3.28 | | | |
| | 200 | -4.20 | -4.26 | -4.22 | -4.24 | -4.22 | -4.23 | -3.60 | -3.61 | -3.62 | -3.64 | -3.61 | -3.61 | -3.25 | -3.25 | -3.26 | -3.26 | -3.24 | -3.26 | | | |
| 1 | 20 | -5.83 | -5.81 | -5.73 | -5.66 | -5.78 | -5.67 | -4.05 | -4.00 | -3.88 | -3.92 | -3.95 | -3.94 | -3.26 | -3.24 | -3.20 | -3.22 | -3.23 | -3.24 | | | |
| | 30 | -4.57 | -4.62 | -4.69 | -4.68 | -4.65 | -4.75 | -3.69 | -3.62 | -3.65 | -3.67 | -3.64 | -3.74 | -3.22 | -3.15 | -3.17 | -3.20 | -3.20 | -3.22 | | | |
| | 50 | -4.42 | -4.37 | -4.37 | -4.48 | -4.33 | -4.39 | -3.62 | -3.62 | -3.63 | -3.59 | -3.58 | -3.59 | -3.21 | -3.23 | -3.21 | -3.18 | -3.19 | -3.22 | | | |
| | 70 | -4.32 | -4.37 | -4.36 | -4.34 | -4.33 | -4.36 | -3.60 | -3.64 | -3.62 | -3.59 | -3.58 | -3.62 | -3.24 | -3.26 | -3.24 | -3.22 | -3.23 | -3.23 | | | |
| | 100 | -4.25 | -4.31 | -4.30 | -4.30 | -4.25 | -4.32 | -3.58 | -3.60 | -3.58 | -3.65 | -3.57 | -3.59 | -3.20 | -3.21 | -3.23 | -3.25 | -3.20 | -3.22 | | | |
| | 200 | -4.19 | -4.23 | -4.23 | -4.26 | -4.23 | -4.21 | -3.58 | -3.57 | -3.57 | -3.62 | -3.59 | -3.59 | -3.24 | -3.22 | -3.26 | -3.26 | -3.23 | -3.25 | | | |
| 2 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 30 | -4.78 | -4.74 | -4.75 | -4.75 | -4.70 | -4.85 | -3.58 | -3.57 | -3.56 | -3.61 | -3.58 | -3.57 | -3.03 | -2.99 | -3.04 | -3.03 | -3.04 | -3.06 | | | |
| | 50 | -4.32 | -4.32 | -4.34 | -4.31 | -4.30 | -4.34 | -3.57 | -3.56 | -3.54 | -3.51 | -3.51 | -3.49 | -3.13 | -3.13 | -3.12 | -3.11 | -3.09 | -3.10 | | | |
| | 70 | -4.28 | -4.37 | -4.39 | -4.29 | -4.26 | -4.36 | -3.54 | -3.59 | -3.53 | -3.56 | -3.55 | -3.56 | -3.16 | -3.20 | -3.17 | -3.18 | -3.16 | -3.17 | | | |
| | 100 | -4.23 | -4.22 | -4.30 | -4.24 | -4.24 | -4.28 | -3.53 | -3.52 | -3.55 | -3.58 | -3.54 | -3.56 | -3.17 | -3.19 | -3.20 | -3.22 | -3.17 | -3.19 | | | |
| | 200 | -4.20 | -4.23 | -4.19 | -4.22 | -4.21 | -4.19 | -3.57 | -3.58 | -3.56 | -3.60 | -3.55 | -3.56 | -3.23 | -3.22 | -3.21 | -3.23 | -3.21 | -3.23 | | | |
| 3 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 30 | -5.60 | -5.30 | -5.45 | -5.38 | -5.39 | -5.55 | -3.68 | -3.67 | -3.64 | -3.60 | -3.62 | -3.77 | -3.01 | -2.98 | -2.99 | -2.96 | -2.94 | -3.05 | | | |
| | 50 | -4.39 | -4.37 | -4.32 | -4.43 | -4.23 | -4.30 | -3.51 | -3.52 | -3.48 | -3.53 | -3.48 | -3.48 | -3.10 | -3.09 | -3.05 | -3.06 | -3.04 | -3.05 | | | |
| | 70 | -4.27 | -4.35 | -4.29 | -4.25 | -4.21 | -4.31 | -3.53 | -3.55 | -3.54 | -3.55 | -3.53 | -3.58 | -3.10 | -3.14 | -3.14 | -3.14 | -3.15 | -3.15 | | | |
| | | | | | | | | | | | | | | | | | | | | | | |

Table S2(b) : Critical Values of Individual Cross-Sectionally Augmented Dickey-Fuller Distribution (Case II: Intercept Only)

| | | k + 1 = 1 | | | | | | | | | | | | | | | | | |
|---|-------|-----------------------|-------|-------|-------|-------|-----------------------|-------|-------|-------|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|
| | | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | | | |
| p | (T,N) | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 |
| 0 | 20 | -4.23 | -4.28 | -4.19 | -4.36 | -4.35 | -4.39 | -3.39 | -3.43 | -3.37 | -3.42 | -3.43 | -3.45 | -2.98 | -3.01 | -3.00 | -3.00 | -3.01 | -2.98 |
| | 30 | -4.07 | -4.19 | -4.10 | -4.04 | -4.12 | -4.05 | -3.32 | -3.34 | -3.31 | -3.29 | -3.35 | -3.33 | -2.95 | -2.94 | -2.94 | -2.95 | -2.97 | -2.96 |
| | 50 | -3.99 | -3.98 | -3.92 | -3.88 | -4.03 | -3.97 | -3.30 | -3.26 | -3.27 | -3.25 | -3.26 | -3.28 | -2.94 | -2.93 | -2.93 | -2.91 | -2.93 | -2.94 |
| | 70 | -3.94 | -3.88 | -3.90 | -3.89 | -3.92 | -3.86 | -3.31 | -3.27 | -3.25 | -3.22 | -3.29 | -3.27 | -2.95 | -2.93 | -2.93 | -2.91 | -2.95 | -2.93 |
| | 100 | -3.88 | -3.83 | -3.86 | -3.91 | -3.86 | -3.80 | -3.30 | -3.25 | -3.23 | -3.26 | -3.26 | -3.24 | -2.94 | -2.95 | -2.92 | -2.93 | -2.92 | -2.92 |
| 1 | 200 | -3.78 | -3.83 | -3.79 | -3.81 | -3.78 | -3.86 | -3.21 | -3.24 | -3.25 | -3.24 | -3.23 | -3.21 | -2.91 | -2.93 | -2.92 | -2.92 | -2.91 | -2.89 |
| | 20 | -4.38 | -4.34 | -4.44 | -4.42 | -4.47 | -4.35 | -3.45 | -3.43 | -3.42 | -3.43 | -3.45 | -3.44 | -3.02 | -3.00 | -2.98 | -3.00 | -3.01 | -3.02 |
| | 30 | -4.15 | -4.15 | -4.12 | -4.12 | -4.13 | -4.14 | -3.32 | -3.30 | -3.32 | -3.35 | -3.32 | -3.35 | -2.95 | -2.94 | -2.97 | -2.97 | -2.97 | -2.95 |
| | 50 | -4.05 | -3.93 | -3.95 | -3.96 | -3.94 | -3.99 | -3.31 | -3.28 | -3.26 | -3.27 | -3.27 | -3.27 | -2.95 | -2.93 | -2.92 | -2.91 | -2.94 | -2.94 |
| | 70 | -3.98 | -3.89 | -3.90 | -3.88 | -3.93 | -3.94 | -3.29 | -3.27 | -3.28 | -3.24 | -3.28 | -3.28 | -2.93 | -2.93 | -2.93 | -2.92 | -2.93 | -2.91 |
| 2 | 100 | -3.89 | -3.86 | -3.85 | -3.92 | -3.88 | -3.84 | -3.28 | -3.25 | -3.24 | -3.27 | -3.24 | -3.25 | -2.94 | -2.93 | -2.93 | -2.94 | -2.93 | -2.92 |
| | 200 | -3.77 | -3.81 | -3.79 | -3.78 | -3.82 | -3.79 | -3.22 | -3.22 | -3.25 | -3.22 | -3.22 | -3.22 | -2.91 | -2.93 | -2.92 | -2.94 | -2.92 | -2.90 |
| | 20 | -4.41 | -4.45 | -4.42 | -4.51 | -4.31 | -4.35 | -3.43 | -3.42 | -3.37 | -3.38 | -3.35 | -3.39 | -2.95 | -2.94 | -2.91 | -2.93 | -2.91 | -2.95 |
| | 30 | -4.04 | -4.10 | -4.04 | -4.04 | -4.04 | -4.15 | -3.27 | -3.24 | -3.28 | -3.31 | -3.26 | -3.28 | -2.90 | -2.89 | -2.92 | -2.92 | -2.90 | -2.91 |
| | 50 | -4.04 | -3.97 | -3.96 | -3.93 | -3.92 | -3.98 | -3.26 | -3.26 | -3.24 | -3.23 | -3.25 | -3.25 | -2.90 | -2.90 | -2.89 | -2.88 | -2.92 | -2.91 |
| 3 | 70 | -3.90 | -3.85 | -3.92 | -3.83 | -3.87 | -3.90 | -3.26 | -3.22 | -3.25 | -3.22 | -3.24 | -3.26 | -2.90 | -2.90 | -2.89 | -2.90 | -2.89 | -2.89 |
| | 100 | -3.88 | -3.82 | -3.84 | -3.91 | -3.83 | -3.83 | -3.24 | -3.22 | -3.26 | -3.24 | -3.23 | -3.22 | -2.91 | -2.92 | -2.91 | -2.91 | -2.89 | -2.89 |
| | 200 | -3.75 | -3.78 | -3.78 | -3.81 | -3.77 | -3.80 | -3.20 | -3.22 | -3.22 | -3.23 | -3.22 | -3.20 | -2.91 | -2.92 | -2.91 | -2.92 | -2.89 | -2.89 |
| | 20 | -4.60 | -4.59 | -4.62 | -4.63 | -4.57 | -4.51 | -3.50 | -3.43 | -3.48 | -3.46 | -3.45 | -3.41 | -3.00 | -2.96 | -2.96 | -2.93 | -2.91 | -2.93 |
| | 30 | -4.16 | -4.11 | -4.16 | -4.05 | -4.10 | -4.14 | -3.31 | -3.26 | -3.33 | -3.29 | -3.30 | -3.29 | -2.90 | -2.89 | -2.91 | -2.89 | -2.90 | -2.88 |
| 4 | 50 | -3.99 | -3.99 | -3.99 | -3.88 | -3.92 | -3.93 | -3.29 | -3.25 | -3.23 | -3.21 | -3.24 | -3.23 | -2.91 | -2.88 | -2.88 | -2.88 | -2.90 | -2.88 |
| | 70 | -3.92 | -3.83 | -3.86 | -3.88 | -3.83 | -3.91 | -3.24 | -3.21 | -3.23 | -3.22 | -3.24 | -3.24 | -2.91 | -2.88 | -2.90 | -2.90 | -2.91 | -2.91 |
| | 100 | -3.92 | -3.82 | -3.89 | -3.93 | -3.85 | -3.79 | -3.23 | -3.22 | -3.25 | -3.25 | -3.22 | -3.20 | -2.91 | -2.92 | -2.91 | -2.90 | -2.90 | -2.89 |
| | 200 | -3.75 | -3.79 | -3.78 | -3.84 | -3.75 | -3.80 | -3.20 | -3.22 | -3.24 | -3.23 | -3.20 | -3.20 | -2.90 | -2.92 | -2.91 | -2.91 | -2.90 | -2.88 |
| | 20 | -4.74 | -4.71 | -4.69 | -4.71 | -4.64 | -4.63 | -3.44 | -3.47 | -3.44 | -3.50 | -3.44 | -3.40 | -2.91 | -2.91 | -2.93 | -2.91 | -2.89 | -2.88 |
| 1 | 30 | -4.01 | -4.05 | -4.11 | -4.06 | -4.10 | -4.11 | -3.28 | -3.22 | -3.28 | -3.24 | -3.29 | -3.24 | -2.86 | -2.82 | -2.87 | -2.85 | -2.87 | -2.84 |
| | 50 | -3.95 | -3.98 | -3.87 | -3.93 | -3.94 | -3.84 | -3.25 | -3.21 | -3.21 | -3.20 | -3.23 | -3.20 | -2.87 | -2.87 | -2.86 | -2.85 | -2.87 | -2.85 |
| | 70 | -3.88 | -3.84 | -3.81 | -3.82 | -3.86 | -3.88 | -3.22 | -3.21 | -3.21 | -3.21 | -3.22 | -3.22 | -2.89 | -2.87 | -2.88 | -2.87 | -2.88 | -2.88 |
| | 100 | -3.86 | -3.84 | -3.86 | -3.87 | -3.85 | -3.79 | -3.23 | -3.20 | -3.22 | -3.24 | -3.21 | -3.20 | -2.89 | -2.90 | -2.88 | -2.89 | -2.88 | -2.87 |
| | 200 | -3.76 | -3.79 | -3.80 | -3.82 | -3.76 | -3.82 | -3.19 | -3.21 | -3.22 | -3.22 | -3.20 | -3.18 | -2.88 | -2.92 | -2.90 | -2.90 | -2.89 | -2.87 |
| | | k + 1 = 2 | | | | | | | | | | | | | | | | | |
| p | (T,N) | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | | | |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 |
| 0 | 20 | -4.73 | -4.83 | -4.69 | -4.80 | -4.83 | -4.79 | -3.72 | -3.74 | -3.72 | -3.75 | -3.76 | -3.76 | -3.24 | -3.28 | -3.28 | -3.26 | -3.26 | -3.28 |
| | 30 | -4.54 | -4.43 | -4.42 | -4.31 | -4.40 | -4.49 | -3.66 | -3.60 | -3.61 | -3.58 | -3.64 | -3.59 | -3.25 | -3.21 | -3.22 | -3.21 | -3.24 | -3.22 |
| | 50 | -4.27 | -4.33 | -4.29 | -4.26 | -4.28 | -4.23 | -3.57 | -3.55 | -3.56 | -3.54 | -3.54 | -3.54 | -3.21 | -3.20 | -3.20 | -3.17 | -3.19 | -3.19 |
| | 70 | -4.19 | -4.29 | -4.24 | -4.20 | -4.26 | -4.26 | -3.55 | -3.61 | -3.54 | -3.54 | -3.58 | -3.58 | -3.22 | -3.25 | -3.21 | -3.19 | -3.23 | -3.22 |
| | 100 | -4.19 | -4.23 | -4.15 | -4.14 | -4.17 | -4.18 | -3.55 | -3.55 | -3.52 | -3.52 | -3.55 | -3.52 | -3.21 | -3.23 | -3.17 | -3.20 | -3.21 | -3.21 |
| 1 | 200 | -4.16 | -4.13 | -4.14 | -4.12 | -4.18 | -4.14 | -3.51 | -3.53 | -3.53 | -3.51 | -3.54 | -3.49 | -3.19 | -3.20 | -3.22 | -3.20 | -3.22 | -3.18 |
| | 20 | -5.00 | -5.00 | -4.90 | -4.90 | -4.96 | -4.95 | -3.86 | -3.81 | -3.80 | -3.81 | -3.78 | -3.81 | -3.30 | -3.30 | -3.30 | -3.26 | -3.30 | -3.30 |
| | 30 | -4.46 | -4.50 | -4.48 | -4.48 | -4.52 | -4.55 | -3.63 | -3.59 | -3.63 | -3.61 | -3.65 | -3.60 | -3.22 | -3.20 | -3.23 | -3.24 | -3.22 | -3.21 |
| | 50 | -4.28 | -4.27 | -4.34 | -4.25 | -4.27 | -4.27 | -3.57 | -3.54 | -3.57 | -3.55 | -3.56 | -3.56 | -3.20 | -3.19 | -3.19 | -3.16 | -3.18 | -3.19 |
| | 70 | -4.21 | -4.27 | -4.25 | -4.21 | -4.29 | -4.27 | -3.56 | -3.58 | -3.56 | -3.57 | -3.57 | -3.58 | -3.20 | -3.23 | -3.20 | -3.20 | -3.21 | -3.20 |
| 2 | 100 | -4.22 | -4.18 | -4.14 | -4.19 | -4.20 | -4.17 | -3.53 | -3.56 | -3.52 | -3.52 | -3.54 | -3.54 | -3.19 | -3.20 | -3.18 | -3.19 | -3.19 | -3.20 |
| | 200 | -4.07 | -4.13 | -4.12 | -4.12 | -4.18 | -4.10 | -3.52 | -3.51 | -3.52 | -3.52 | -3.50 | -3.52 | -3.18 | -3.18 | -3.19 | -3.19 | -3.17 | -3.17 |
| | 20 | -5.17 | -5.12 | -5.03 | -5.01 | -4.97 | -5.07 | -3.77 | -3.78 | -3.73 | -3.73 | -3.67 | -3.71 | -3.18 | -3.18 | -3.16 | -3.16 | -3.13 | -3.14 |
| | 30 | -4.55 | -4.49 | -4.47 | -4.51 | -4.44 | -4.53 | -3.54 | -3.56 | -3.60 | -3.56 | -3.54 | -3.52 | -3.12 | -3.12 | -3.17 | -3.15 | -3.13 | -3.12 |
| | 50 | -4.26 | -4.23 | -4.28 | -4.22 | -4.26 | -4.27 | -3.52 | -3.54 | -3.55 | -3.48 | -3.52 | -3.50 | -3.17 | -3.16 | -3.15 | -3.11 | -3.13 | -3.13 |
| 3 | 70 | -4.18 | -4.25 | -4.22 | -4.17 | -4.26 | -4.23 | -3.53 | -3.55 | -3.51 | -3.50 | -3.51 | -3.57 | -3.19 | -3.19 | -3.17 | -3.17 | -3.16 | -3.19 |
| | 100 | -4.21 | -4.11 | -4.11 | -4.16 | -4.19 | -4.19 | -3.52 | -3.52 | -3.53 | -3.53 | -3.51 | -3.52 | -3.17 | -3.18 | -3.18 | -3.17 | -3.17 | -3.17 |
| | 200 | -4.10 | -4.09 | -4.10 | -4.11 | -4.12 | -4.10 | -3.52 | -3.51 | -3.52 | -3.52 | -3.50 | -3.52 | -3.18 | -3.18 | -3.19 | -3.18 | -3.21 | -3.16 |
| | 20 | -5.92 | -6.06 | -6.08 | -6.14 | -6.16 | -6.03 | -4.06 | -4.04 | -4.11 | -3.94 | -4.08 | -4.02 | -3.29 | -3.30 | -3.30 | -3.21 | -3.25 | -3.26 |
| | 30 | -4.51 | -4.53 | -4.60 | -4.56 | -4.56 | -4.59 | -3.54 | -3.57 | -3.61 | -3.58 | -3.54 | -3.61 | -3.11 | -3.09 | -3.14 | -3.13 | -3.10 | -3.13 |
| 4 | 50 | -4.26 | -4.31 | -4.27 | -4.23 | -4.23 | -4.28 | -3.54 | -3.49 | -3.54 | -3.48 | -3.51 | -3.48 | -3.16 | -3.15 | -3.14 | -3.11 | -3.13 | -3.12 |
| | 70 | -4.14 | -4.19 | -4.19 | -4.17 | -4.17 | -4.21 | -3.52 | -3.52 | -3.53 | -3.53 | -3.51 | -3.52 | -3.16 | -3.17 | -3.15 | -3.16 | -3.15 | -3.17 |
| | 100 | -4.18 | -4.11 | -4.09 | -4.13 | -4.20 | -4.16 | -3.50 | -3.50 | -3.49 | -3.51 | -3.51 | -3.53 | -3.17 | -3.17 | -3.16 | -3.16 | | |

| | | k + 1 = 3 | | | | | | | | | | | | | | | | | | | | |
|-----------|-------|-----------------------|-------|-------|-------|-------|-----------------------|-------|-------|-------|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|---|--|--|
| p | (T,N) | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | | | | | | |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | | | |
| 0 | 20 | -5.17 | -5.02 | -5.23 | -5.07 | -5.09 | -5.10 | -4.02 | -3.97 | -4.04 | -3.98 | -4.02 | -4.00 | -3.52 | -3.47 | -3.55 | -3.51 | -3.55 | -3.50 | | | |
| | 30 | -4.75 | -4.71 | -4.68 | -4.73 | -4.73 | -4.76 | -3.90 | -3.83 | -3.89 | -3.90 | -3.91 | -3.86 | -3.47 | -3.41 | -3.46 | -3.50 | -3.50 | -3.45 | | | |
| | 50 | -4.59 | -4.54 | -4.58 | -4.52 | -4.50 | -4.59 | -3.80 | -3.84 | -3.84 | -3.80 | -3.80 | -3.85 | -3.44 | -3.46 | -3.45 | -3.45 | -3.46 | -3.46 | | | |
| | 70 | -4.47 | -4.52 | -4.51 | -4.51 | -4.52 | -4.46 | -3.81 | -3.84 | -3.84 | -3.80 | -3.84 | -3.81 | -3.45 | -3.46 | -3.44 | -3.44 | -3.46 | -3.46 | | | |
| | 100 | -4.46 | -4.48 | -4.38 | -4.48 | -4.43 | -4.46 | -3.79 | -3.81 | -3.77 | -3.81 | -3.80 | -3.80 | -3.45 | -3.45 | -3.44 | -3.45 | -3.45 | -3.46 | | | |
| | 200 | -4.44 | -4.44 | -4.38 | -4.38 | -4.34 | -4.40 | -3.80 | -3.76 | -3.79 | -3.77 | -3.75 | -3.78 | -3.47 | -3.44 | -3.45 | -3.43 | -3.43 | -3.45 | | | |
| 1 | 20 | -5.61 | -5.60 | -5.67 | -5.53 | -5.46 | -5.62 | -4.13 | -4.11 | -4.13 | -4.05 | -4.09 | -4.11 | -3.48 | -3.49 | -3.51 | -3.43 | -3.48 | -3.50 | | | |
| | 30 | -4.78 | -4.77 | -4.82 | -4.85 | -4.92 | -4.78 | -3.87 | -3.84 | -3.84 | -3.89 | -3.91 | -3.88 | -3.42 | -3.39 | -3.40 | -3.44 | -3.46 | -3.43 | | | |
| | 50 | -4.53 | -4.58 | -4.58 | -4.55 | -4.57 | -4.53 | -3.81 | -3.81 | -3.84 | -3.83 | -3.76 | -3.81 | -3.43 | -3.45 | -3.44 | -3.43 | -3.38 | -3.41 | | | |
| | 70 | -4.45 | -4.51 | -4.51 | -4.54 | -4.56 | -4.54 | -3.81 | -3.80 | -3.77 | -3.78 | -3.81 | -3.81 | -3.43 | -3.42 | -3.40 | -3.44 | -3.43 | -3.43 | | | |
| | 100 | -4.43 | -4.45 | -4.45 | -4.47 | -4.48 | -4.41 | -3.76 | -3.77 | -3.77 | -3.81 | -3.78 | -3.80 | -3.42 | -3.43 | -3.43 | -3.45 | -3.44 | -3.42 | | | |
| | 200 | -4.43 | -4.40 | -4.39 | -4.38 | -4.35 | -4.40 | -3.79 | -3.77 | -3.75 | -3.77 | -3.75 | -3.79 | -3.46 | -3.42 | -3.44 | -3.44 | -3.44 | -3.45 | | | |
| 2 | 20 | -7.11 | -6.76 | -6.77 | -6.79 | -6.69 | -7.03 | -4.43 | -4.38 | -4.31 | -4.42 | -4.23 | -4.38 | -3.47 | -3.41 | -3.39 | -3.47 | -3.36 | -3.42 | | | |
| | 30 | -4.95 | -4.75 | -4.83 | -4.83 | -4.87 | -4.78 | -3.79 | -3.75 | -3.72 | -3.79 | -3.80 | -3.81 | -3.29 | -3.26 | -3.26 | -3.32 | -3.31 | -3.28 | | | |
| | 50 | -4.51 | -4.52 | -4.54 | -4.48 | -4.47 | -4.52 | -3.71 | -3.75 | -3.79 | -3.72 | -3.69 | -3.72 | -3.34 | -3.36 | -3.39 | -3.34 | -3.32 | -3.35 | | | |
| | 70 | -4.45 | -4.50 | -4.48 | -4.45 | -4.56 | -4.53 | -3.70 | -3.75 | -3.73 | -3.73 | -3.76 | -3.77 | -3.38 | -3.39 | -3.38 | -3.38 | -3.38 | -3.38 | | | |
| | 100 | -4.36 | -4.51 | -4.42 | -4.40 | -4.47 | -4.43 | -3.74 | -3.75 | -3.75 | -3.76 | -3.76 | -3.75 | -3.38 | -3.36 | -3.41 | -3.41 | -3.39 | -3.39 | | | |
| | 200 | -4.42 | -4.42 | -4.41 | -4.39 | -4.37 | -4.38 | -3.78 | -3.74 | -3.75 | -3.76 | -3.74 | -3.80 | -3.43 | -3.41 | -3.42 | -3.42 | -3.41 | -3.43 | | | |
| 3 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 30 | -5.10 | -5.04 | -5.11 | -5.11 | -5.12 | -5.11 | -3.77 | -3.73 | -3.79 | -3.84 | -3.79 | -3.84 | -3.25 | -3.21 | -3.20 | -3.25 | -3.19 | -3.27 | | | |
| | 50 | -4.42 | -4.52 | -4.61 | -4.57 | -4.51 | -4.53 | -3.68 | -3.76 | -3.77 | -3.69 | -3.69 | -3.70 | -3.31 | -3.34 | -3.33 | -3.31 | -3.32 | -3.29 | | | |
| | 70 | -4.46 | -4.50 | -4.45 | -4.46 | -4.55 | -4.46 | -3.73 | -3.73 | -3.69 | -3.73 | -3.74 | -3.75 | -3.36 | -3.36 | -3.33 | -3.37 | -3.38 | -3.37 | | | |
| | 100 | -4.39 | -4.38 | -4.44 | -4.44 | -4.47 | -4.37 | -3.73 | -3.73 | -3.71 | -3.75 | -3.74 | -3.74 | -3.38 | -3.39 | -3.38 | -3.38 | -3.37 | -3.37 | | | |
| | 200 | -4.39 | -4.40 | -4.38 | -4.41 | -4.37 | -4.38 | -3.76 | -3.73 | -3.76 | -3.73 | -3.74 | -3.77 | -3.44 | -3.40 | -3.40 | -3.42 | -3.41 | -3.41 | | | |
| 4 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 30 | -5.53 | -5.50 | -5.39 | -5.80 | -5.52 | -5.77 | -3.91 | -3.85 | -3.81 | -3.97 | -3.86 | -3.93 | -3.17 | -3.11 | -3.14 | -3.23 | -3.13 | -3.16 | | | |
| | 50 | -4.48 | -4.52 | -4.57 | -4.51 | -4.51 | -4.44 | -3.66 | -3.68 | -3.69 | -3.66 | -3.66 | -3.65 | -3.25 | -3.23 | -3.22 | -3.25 | -3.24 | -3.23 | | | |
| | 70 | -4.43 | -4.41 | -4.43 | -4.32 | -4.43 | -4.53 | -3.70 | -3.71 | -3.66 | -3.68 | -3.70 | -3.68 | -3.31 | -3.35 | -3.29 | -3.30 | -3.31 | -3.30 | | | |
| | 100 | -4.37 | -4.35 | -4.30 | -4.44 | -4.47 | -4.35 | -3.70 | -3.71 | -3.68 | -3.71 | -3.70 | -3.67 | -3.34 | -3.34 | -3.33 | -3.35 | -3.34 | -3.32 | | | |
| | 200 | -4.36 | -4.37 | -4.37 | -4.36 | -4.33 | -4.35 | -3.74 | -3.70 | -3.73 | -3.72 | -3.73 | -3.76 | -3.42 | -3.37 | -3.37 | -3.37 | -3.40 | -3.41 | | | |
| k + 1 = 4 | | | | | | | | | | | | | | | | | | | | | | |
| p | (T,N) | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | | | | | | |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | | | |
| 0 | 20 | -5.73 | -5.56 | -5.55 | -5.64 | -5.60 | -5.62 | -4.35 | -4.28 | -4.27 | -4.29 | -4.26 | -4.27 | -3.73 | -3.68 | -3.71 | -3.70 | -3.69 | -3.72 | | | |
| | 30 | -5.11 | -5.06 | -5.12 | -4.91 | -4.97 | -5.04 | -4.14 | -4.11 | -4.11 | -4.12 | -4.10 | -4.09 | -3.72 | -3.63 | -3.67 | -3.68 | -3.68 | -3.67 | | | |
| | 50 | -4.78 | -4.82 | -4.81 | -4.74 | -4.72 | -4.88 | -4.04 | -4.06 | -4.06 | -4.01 | -4.00 | -4.03 | -3.63 | -3.65 | -3.65 | -3.61 | -3.61 | -3.66 | | | |
| | 70 | -4.73 | -4.74 | -4.67 | -4.71 | -4.79 | -4.69 | -4.03 | -4.08 | -4.01 | -4.00 | -4.02 | -4.02 | -3.67 | -3.70 | -3.66 | -3.63 | -3.65 | -3.69 | | | |
| | 100 | -4.69 | -4.68 | -4.64 | -4.68 | -4.68 | -4.73 | -4.02 | -4.01 | -4.01 | -4.02 | -3.97 | -4.02 | -3.66 | -3.64 | -3.65 | -3.66 | -3.64 | -3.66 | | | |
| | 200 | -4.62 | -4.61 | -4.61 | -4.58 | -4.65 | -4.59 | -3.99 | -4.01 | -3.99 | -4.00 | -3.99 | -3.97 | -3.66 | -3.66 | -3.68 | -3.67 | -3.66 | -3.66 | | | |
| 1 | 20 | -6.81 | -6.86 | -6.92 | -6.57 | -7.05 | -6.93 | -4.57 | -4.68 | -4.59 | -4.56 | -4.49 | -4.57 | -3.79 | -3.74 | -3.67 | -3.70 | -3.67 | -3.66 | | | |
| | 30 | -5.09 | -5.10 | -5.19 | -5.14 | -5.14 | -5.12 | -4.11 | -4.04 | -4.08 | -4.06 | -4.03 | -4.11 | -3.62 | -3.55 | -3.57 | -3.58 | -3.56 | -3.60 | | | |
| | 50 | -4.80 | -4.79 | -4.78 | -4.87 | -4.78 | -4.75 | -3.98 | -4.02 | -4.02 | -4.01 | -3.97 | -3.99 | -3.58 | -3.61 | -3.60 | -3.60 | -3.58 | -3.62 | | | |
| | 70 | -4.74 | -4.74 | -4.74 | -4.78 | -4.70 | -4.74 | -4.02 | -4.04 | -3.99 | -3.96 | -3.99 | -4.01 | -3.65 | -3.66 | -3.60 | -3.62 | -3.61 | -3.63 | | | |
| | 100 | -4.61 | -4.69 | -4.62 | -4.70 | -4.68 | -4.68 | -3.98 | -4.00 | -3.97 | -4.00 | -3.99 | -4.00 | -3.62 | -3.60 | -3.62 | -3.65 | -3.63 | -3.66 | | | |
| | 200 | -4.63 | -4.65 | -4.57 | -4.59 | -4.66 | -4.52 | -3.98 | -3.97 | -3.98 | -3.99 | -4.00 | -3.96 | -3.64 | -3.64 | -3.64 | -3.65 | -3.64 | -3.65 | | | |
| 2 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 30 | -5.22 | -5.33 | -5.44 | -5.46 | -5.30 | -5.37 | -3.94 | -3.95 | -3.99 | -3.99 | -3.98 | -4.01 | -3.39 | -3.35 | -3.45 | -3.42 | -3.40 | -3.42 | | | |
| | 50 | -4.71 | -4.77 | -4.73 | -4.71 | -4.78 | -4.76 | -3.90 | -3.92 | -3.89 | -3.90 | -3.90 | -3.91 | -3.51 | -3.50 | -3.49 | -3.49 | -3.47 | -3.49 | | | |
| | 70 | -4.66 | -4.72 | -4.78 | -4.68 | -4.65 | -4.71 | -3.95 | -3.97 | -3.95 | -3.93 | -3.92 | -3.95 | -3.57 | -3.57 | -3.54 | -3.56 | -3.53 | -3.57 | | | |
| | 100 | -4.61 | -4.65 | -4.63 | -4.64 | -4.60 | -4.66 | -3.92 | -3.92 | -3.94 | -3.97 | -3.94 | -3.97 | -3.57 | -3.56 | -3.57 | -3.60 | -3.58 | -3.59 | | | |
| | 200 | -4.59 | -4.55 | -4.57 | -4.59 | -4.60 | -4.52 | -3.98 | -3.97 | -3.95 | -3.96 | -3.98 | -3.96 | -3.63 | -3.62 | -3.63 | -3.63 | -3.61 | -3.63 | | | |
| 3 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 30 | -6.27 | -6.11 | -6.38 | -6.60 | -6.37 | -6.56 | -4.30 | -4.11 | -4.28 | -4.24 | -4.20 | -4.25 | -3.40 | -3.31 | -3.41 | -3.37 | -3.33 | -3.41 | | | |
| | 50 | -4.74 | -4.71 | -4.67 | -4.73 | -4.65 | -4.74 | -3.83 | -3.86 | -3.84 | -3.86 | -3.85 | - | | | | | | | | | |

Table S2(c) :: Critical Values of Individual Cross-Sectionally Augmented Dickey-Fuller Distribution (Case III: Intercept and Trend)

| | | $k + 1 = 1$ | | | | | | | | | | | | | | | | | |
|-----|-------|-----------------------|-------|-------|-------|-------|-----------------------|-------|-------|-------|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|
| | | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | | | |
| p | (T,N) | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 |
| 0 | 20 | -4.97 | -4.91 | -4.95 | -4.94 | -4.93 | -4.99 | -3.98 | -4.01 | -3.98 | -3.98 | -3.98 | -4.06 | -3.54 | -3.56 | -3.55 | -3.54 | -3.53 | -3.56 |
| | 30 | -4.63 | -4.63 | -4.63 | -4.60 | -4.67 | -4.63 | -3.82 | -3.88 | -3.87 | -3.83 | -3.86 | -3.86 | -3.47 | -3.49 | -3.49 | -3.46 | -3.46 | -3.50 |
| | 50 | -4.47 | -4.49 | -4.43 | -4.48 | -4.45 | -4.45 | -3.78 | -3.80 | -3.79 | -3.80 | -3.76 | -3.78 | -3.45 | -3.45 | -3.46 | -3.45 | -3.46 | -3.43 |
| | 70 | -4.35 | -4.32 | -4.37 | -4.41 | -4.44 | -4.42 | -3.76 | -3.75 | -3.73 | -3.73 | -3.76 | -3.77 | -3.46 | -3.43 | -3.42 | -3.42 | -3.43 | -3.44 |
| | 100 | -4.35 | -4.41 | -4.37 | -4.31 | -4.32 | -4.28 | -3.75 | -3.76 | -3.75 | -3.72 | -3.74 | -3.73 | -3.43 | -3.42 | -3.41 | -3.41 | -3.44 | -3.43 |
| 1 | 200 | -4.27 | -4.33 | -4.26 | -4.34 | -4.34 | -4.34 | -3.68 | -3.72 | -3.72 | -3.70 | -3.72 | -3.73 | -3.40 | -3.42 | -3.42 | -3.40 | -3.40 | -3.40 |
| | 20 | -5.05 | -5.01 | -5.19 | -5.07 | -5.13 | -5.12 | -3.99 | -4.02 | -4.08 | -4.04 | -4.05 | -4.07 | -3.55 | -3.57 | -3.60 | -3.58 | -3.57 | -3.57 |
| | 30 | -4.67 | -4.77 | -4.74 | -4.61 | -4.76 | -4.76 | -3.88 | -3.87 | -3.88 | -3.86 | -3.88 | -3.94 | -3.49 | -3.48 | -3.50 | -3.47 | -3.48 | -3.53 |
| | 50 | -4.48 | -4.49 | -4.47 | -4.51 | -4.47 | -4.49 | -3.80 | -3.79 | -3.78 | -3.80 | -3.77 | -3.80 | -3.45 | -3.44 | -3.44 | -3.42 | -3.42 | -3.45 |
| | 70 | -4.41 | -4.39 | -4.45 | -4.41 | -4.40 | -4.46 | -3.78 | -3.76 | -3.75 | -3.76 | -3.76 | -3.78 | -3.44 | -3.44 | -3.42 | -3.43 | -3.43 | -3.43 |
| 2 | 100 | -4.35 | -4.41 | -4.36 | -4.37 | -4.36 | -4.25 | -3.78 | -3.74 | -3.75 | -3.73 | -3.73 | -3.73 | -3.43 | -3.42 | -3.42 | -3.41 | -3.42 | -3.42 |
| | 200 | -4.26 | -4.28 | -4.27 | -4.33 | -4.28 | -4.29 | -3.70 | -3.72 | -3.73 | -3.69 | -3.73 | -3.74 | -3.39 | -3.42 | -3.41 | -3.39 | -3.40 | -3.39 |
| | 20 | -5.12 | -5.03 | -5.08 | -5.07 | -4.99 | -5.06 | -3.92 | -3.92 | -3.95 | -3.90 | -3.94 | -3.93 | -3.43 | -3.45 | -3.46 | -3.43 | -3.42 | -3.46 |
| | 30 | -4.65 | -4.63 | -4.60 | -4.52 | -4.65 | -4.68 | -3.80 | -3.80 | -3.76 | -3.79 | -3.77 | -3.83 | -3.41 | -3.41 | -3.40 | -3.38 | -3.38 | -3.45 |
| | 50 | -4.44 | -4.51 | -4.43 | -4.40 | -4.39 | -4.38 | -3.75 | -3.74 | -3.74 | -3.73 | -3.74 | -3.75 | -3.39 | -3.38 | -3.38 | -3.39 | -3.37 | -3.40 |
| 3 | 70 | -4.37 | -4.30 | -4.31 | -4.39 | -4.38 | -4.38 | -3.73 | -3.69 | -3.70 | -3.71 | -3.73 | -3.74 | -3.39 | -3.39 | -3.38 | -3.40 | -3.40 | -3.42 |
| | 100 | -4.30 | -4.29 | -4.33 | -4.38 | -4.28 | -4.27 | -3.72 | -3.71 | -3.72 | -3.71 | -3.69 | -3.70 | -3.39 | -3.39 | -3.39 | -3.40 | -3.40 | -3.40 |
| | 200 | -4.25 | -4.27 | -4.25 | -4.32 | -4.30 | -4.32 | -3.66 | -3.71 | -3.70 | -3.69 | -3.69 | -3.71 | -3.38 | -3.42 | -3.41 | -3.39 | -3.39 | -3.37 |
| | 20 | -5.28 | -5.43 | -5.44 | -5.31 | -5.32 | -5.47 | -4.06 | -4.06 | -4.06 | -4.05 | -4.04 | -4.03 | -3.51 | -3.50 | -3.48 | -3.48 | -3.47 | -3.50 |
| | 30 | -4.70 | -4.69 | -4.74 | -4.66 | -4.65 | -4.77 | -3.84 | -3.81 | -3.84 | -3.77 | -3.80 | -3.83 | -3.43 | -3.41 | -3.44 | -3.40 | -3.39 | -3.42 |
| 4 | 50 | -4.49 | -4.46 | -4.48 | -4.48 | -4.44 | -4.36 | -3.78 | -3.73 | -3.76 | -3.71 | -3.73 | -3.72 | -3.40 | -3.38 | -3.41 | -3.37 | -3.39 | -3.38 |
| | 70 | -4.39 | -4.35 | -4.30 | -4.32 | -4.36 | -4.40 | -3.72 | -3.72 | -3.68 | -3.72 | -3.73 | -3.74 | -3.39 | -3.39 | -3.36 | -3.41 | -3.40 | -3.40 |
| | 100 | -4.29 | -4.34 | -4.35 | -4.38 | -4.32 | -4.31 | -3.73 | -3.71 | -3.72 | -3.71 | -3.71 | -3.69 | -3.39 | -3.39 | -3.40 | -3.38 | -3.40 | -3.37 |
| | 200 | -4.25 | -4.30 | -4.29 | -4.31 | -4.30 | -4.34 | -3.66 | -3.71 | -3.69 | -3.70 | -3.69 | -3.70 | -3.38 | -3.40 | -3.39 | -3.40 | -3.39 | -3.37 |
| | 20 | -5.46 | -5.42 | -5.52 | -5.51 | -5.53 | -5.54 | -4.01 | -4.00 | -4.04 | -4.01 | -4.01 | -3.98 | -3.38 | -3.39 | -3.43 | -3.39 | -3.39 | -3.40 |
| 1 | 30 | -4.60 | -4.74 | -4.68 | -4.61 | -4.62 | -4.55 | -3.76 | -3.77 | -3.78 | -3.72 | -3.76 | -3.74 | -3.36 | -3.31 | -3.37 | -3.32 | -3.35 | -3.31 |
| | 50 | -4.45 | -4.41 | -4.42 | -4.37 | -4.44 | -4.31 | -3.72 | -3.67 | -3.72 | -3.73 | -3.68 | -3.65 | -3.36 | -3.31 | -3.36 | -3.32 | -3.32 | -3.31 |
| | 70 | -4.36 | -4.32 | -4.26 | -4.35 | -4.38 | -4.33 | -3.68 | -3.68 | -3.65 | -3.65 | -3.67 | -3.70 | -3.34 | -3.34 | -3.33 | -3.33 | -3.37 | -3.37 |
| | 100 | -4.25 | -4.31 | -4.33 | -4.33 | -4.30 | -4.24 | -3.68 | -3.69 | -3.69 | -3.68 | -3.69 | -3.67 | -3.37 | -3.38 | -3.37 | -3.36 | -3.38 | -3.37 |
| | 200 | -4.20 | -4.28 | -4.25 | -4.29 | -4.23 | -4.29 | -3.67 | -3.70 | -3.68 | -3.68 | -3.67 | -3.70 | -3.37 | -3.39 | -3.38 | -3.39 | -3.37 | -3.36 |
| | | $k + 1 = 2$ | | | | | | | | | | | | | | | | | |
| p | (T,N) | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | | | |
| 0 | 20 | -5.38 | -5.30 | -5.34 | -5.35 | -5.30 | -5.47 | -4.23 | -4.26 | -4.21 | -4.26 | -4.24 | -4.32 | -3.73 | -3.76 | -3.74 | -3.75 | -3.74 | -3.79 |
| | 30 | -5.01 | -5.05 | -4.93 | -4.93 | -5.02 | -4.98 | -4.12 | -4.13 | -4.06 | -4.06 | -4.15 | -4.09 | -3.70 | -3.70 | -3.66 | -3.68 | -3.71 | -3.69 |
| | 50 | -4.70 | -4.74 | -4.77 | -4.68 | -4.72 | -4.72 | -4.04 | -4.06 | -4.03 | -4.00 | -3.97 | -4.04 | -3.66 | -3.70 | -3.67 | -3.65 | -3.65 | -3.66 |
| | 70 | -4.62 | -4.63 | -4.62 | -4.61 | -4.67 | -4.67 | -3.97 | -3.99 | -4.00 | -3.96 | -3.99 | -4.00 | -3.67 | -3.66 | -3.65 | -3.64 | -3.65 | -3.66 |
| | 100 | -4.58 | -4.62 | -4.59 | -4.63 | -4.57 | -4.60 | -4.00 | -3.98 | -3.96 | -3.96 | -3.95 | -3.98 | -3.65 | -3.67 | -3.61 | -3.61 | -3.64 | -3.66 |
| 1 | 200 | -4.55 | -4.56 | -4.53 | -4.58 | -4.59 | -4.58 | -3.96 | -3.95 | -3.95 | -3.94 | -3.94 | -3.97 | -3.63 | -3.64 | -3.64 | -3.63 | -3.63 | -3.65 |
| | 20 | -5.63 | -5.58 | -5.62 | -5.59 | -5.61 | -5.65 | -4.39 | -4.27 | -4.37 | -4.33 | -4.30 | -4.35 | -3.80 | -3.77 | -3.77 | -3.75 | -3.76 | -3.80 |
| | 30 | -4.95 | -5.01 | -4.99 | -4.99 | -5.09 | -5.03 | -4.11 | -4.12 | -4.09 | -4.08 | -4.19 | -4.11 | -3.70 | -3.68 | -3.67 | -3.66 | -3.69 | -3.67 |
| | 50 | -4.69 | -4.74 | -4.81 | -4.72 | -4.71 | -4.71 | -3.99 | -4.02 | -4.05 | -4.00 | -3.99 | -4.00 | -3.65 | -3.65 | -3.66 | -3.62 | -3.63 | -3.65 |
| | 70 | -4.64 | -4.64 | -4.64 | -4.64 | -4.74 | -4.71 | -3.97 | -3.98 | -3.98 | -3.98 | -4.01 | -4.01 | -3.64 | -3.64 | -3.64 | -3.63 | -3.65 | -3.64 |
| 2 | 100 | -4.59 | -4.63 | -4.59 | -4.58 | -4.56 | -4.53 | -3.99 | -3.97 | -3.96 | -3.97 | -3.94 | -3.99 | -3.63 | -3.64 | -3.62 | -3.62 | -3.64 | -3.64 |
| | 200 | -4.55 | -4.52 | -4.54 | -4.57 | -4.60 | -4.60 | -3.94 | -3.94 | -3.93 | -3.94 | -3.94 | -3.96 | -3.63 | -3.63 | -3.64 | -3.63 | -3.63 | -3.63 |
| | 20 | -5.67 | -5.89 | -5.82 | -5.79 | -5.85 | -5.86 | -4.30 | -4.28 | -4.33 | -4.20 | -4.27 | -4.26 | -3.65 | -3.57 | -3.65 | -3.58 | -3.57 | -3.59 |
| | 30 | -5.02 | -4.92 | -4.85 | -4.90 | -5.04 | -4.98 | -4.05 | -4.02 | -4.02 | -4.00 | -4.03 | -4.01 | -3.60 | -3.56 | -3.59 | -3.54 | -3.56 | -3.56 |
| | 50 | -4.67 | -4.73 | -4.72 | -4.64 | -4.70 | -4.68 | -3.93 | -4.01 | -3.98 | -3.91 | -3.92 | -3.95 | -3.59 | -3.63 | -3.57 | -3.55 | -3.57 | -3.58 |
| 3 | 70 | -4.55 | -4.58 | -4.54 | -4.64 | -4.71 | -4.69 | -3.94 | -3.94 | -3.93 | -3.93 | -3.97 | -3.97 | -3.60 | -3.60 | -3.58 | -3.58 | -3.59 | -3.60 |
| | 100 | -4.53 | -4.53 | -4.50 | -4.58 | -4.60 | -4.58 | -3.94 | -3.94 | -3.92 | -3.91 | -3.91 | -3.98 | -3.61 | -3.60 | -3.58 | -3.58 | -3.63 | -3.63 |
| | 200 | -4.54 | -4.55 | -4.52 | -4.54 | -4.55 | -4.59 | -3.93 | -3.93 | -3.94 | -3.92 | -3.95 | -3.92 | -3.61 | -3.61 | -3.62 | -3.62 | -3.63 | -3.60 |
| | 20 | -7.42 | -7.99 | -7.60 | -7.87 | -8.19 | -7.36 | -4.79 | -4.82 | -4.83 | -4.79 | -4.86 | -4.65 | -3.85 | -3.82 | -3.83 | -3.76 | -3.82 | -3.70 |
| | 30 | -5.02 | -5.09 | -5.18 | -5.00 | -5.07 | -5.13 | -4.06 | -4.05 | -4.02 | -3.98 | -4.03 | -4.08 | -3.57 | -3.56 | -3.54 | -3.49 | -3.53 | -3.56 |
| 4 | 50 | -4.68 | -4.72 | -4.72 | -4.77 | -4.70 | -4.69 | -3.91 | -4.00 | -3.96 | -3.90 | -3.93 | -3.93 | -3.55 | -3.59 | -3.58 | -3.54 | -3.53 | -3.57 |
| | 70 | -4.55 | -4.62 | -4.55 | -4.61 | -4.67 | -4.71 | -3.94 | -3.94 | -3.90 | -3.90 | -3.97 | -3.95 | -3.60 | -3.59 | -3.57 | -3.59 | -3.56 | -3.56 |
| | 100 | -4.60 | -4.55 | -4.56 | -4.51 | -4.58 | -4.57 | -3.94 | -3.94 | -3.91 | -3.92 | -3.88 | -3.96 | -3.60 | -3.59 | -3.57 | -3.58 | -3.62 | -3.62 |
| | 200 | -4.55 | -4.56 | -4.55 | -4.50 | -4.60 | -4.51 | -3.94 | -3.92 | -3.94 | -3.92 | -3.95</td | | | | | | | |

(Continued)

| | | k + 1 = 3 | | | | | | | | | | | | | | | | | | | | |
|-----------|-------|-----------------------|-------|--------|-------|-------|-----------------------|-------|-------|-------|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|---|---|---|
| p | (T,N) | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | | | | | | |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | | | |
| 0 | 20 | -5.82 | -5.74 | -5.82 | -5.73 | -5.84 | -5.71 | -4.50 | -4.42 | -4.52 | -4.46 | -4.52 | -4.51 | -3.93 | -3.91 | -3.95 | -3.94 | -3.95 | -3.98 | | | |
| | 30 | -5.29 | -5.27 | -5.11 | -5.26 | -5.24 | -5.24 | -4.33 | -4.33 | -4.30 | -4.32 | -4.34 | -4.31 | -3.90 | -3.87 | -3.89 | -3.91 | -3.91 | -3.88 | | | |
| | 50 | -4.93 | -5.08 | -4.97 | -4.96 | -4.93 | -5.05 | -4.21 | -4.27 | -4.28 | -4.23 | -4.18 | -4.28 | -3.84 | -3.88 | -3.88 | -3.86 | -3.84 | -3.88 | | | |
| | 70 | -4.89 | -4.85 | -4.90 | -4.92 | -4.99 | -4.84 | -4.19 | -4.18 | -4.21 | -4.20 | -4.21 | -4.19 | -3.85 | -3.85 | -3.84 | -3.87 | -3.85 | -3.83 | | | |
| | 100 | -4.87 | -4.79 | -4.82 | -4.88 | -4.87 | -4.84 | -4.19 | -4.16 | -4.18 | -4.19 | -4.18 | -4.19 | -3.84 | -3.84 | -3.83 | -3.87 | -3.83 | -3.84 | | | |
| | 200 | -4.75 | -4.80 | -4.79 | -4.78 | -4.85 | -4.82 | -4.15 | -4.16 | -4.15 | -4.16 | -4.18 | -4.19 | -3.84 | -3.84 | -3.82 | -3.83 | -3.86 | -3.86 | | | |
| 1 | 20 | -6.59 | -6.51 | -6.78 | -6.34 | -6.36 | -6.55 | -4.72 | -4.66 | -4.79 | -4.63 | -4.62 | -4.67 | -3.93 | -3.92 | -3.98 | -3.91 | -3.92 | -3.95 | | | |
| | 30 | -5.30 | -5.20 | -5.33 | -5.39 | -5.39 | -5.35 | -4.31 | -4.30 | -4.30 | -4.34 | -4.35 | -4.29 | -3.83 | -3.82 | -3.83 | -3.87 | -3.88 | -3.83 | | | |
| | 50 | -4.96 | -5.03 | -5.05 | -4.98 | -4.92 | -5.01 | -4.20 | -4.24 | -4.22 | -4.23 | -4.20 | -4.20 | -3.81 | -3.86 | -3.86 | -3.85 | -3.84 | -3.83 | | | |
| | 70 | -4.89 | -4.88 | -4.90 | -4.93 | -4.99 | -4.91 | -4.16 | -4.17 | -4.16 | -4.19 | -4.19 | -4.17 | -3.83 | -3.81 | -3.81 | -3.82 | -3.84 | -3.82 | | | |
| | 100 | -4.79 | -4.82 | -4.86 | -4.82 | -4.86 | -4.78 | -4.15 | -4.15 | -4.17 | -4.20 | -4.19 | -4.15 | -3.82 | -3.81 | -3.83 | -3.86 | -3.84 | -3.82 | | | |
| | 200 | -4.77 | -4.77 | -4.79 | -4.76 | -4.77 | -4.82 | -4.14 | -4.16 | -4.11 | -4.15 | -4.19 | -4.18 | -3.81 | -3.83 | -3.80 | -3.82 | -3.84 | -3.85 | | | |
| 2 | 20 | -9.74 | -9.16 | -10.04 | -9.42 | -9.29 | -9.76 | -5.44 | -5.35 | -5.43 | -5.35 | -5.22 | -5.49 | -4.06 | -4.09 | -4.00 | -4.07 | -3.97 | -4.11 | | | |
| | 30 | -5.36 | -5.39 | -5.48 | -5.26 | -5.38 | -5.38 | -4.21 | -4.18 | -4.19 | -4.16 | -4.19 | -4.20 | -3.69 | -3.67 | -3.69 | -3.67 | -3.68 | -3.66 | | | |
| | 50 | -4.89 | -4.98 | -5.03 | -4.91 | -4.89 | -4.90 | -4.09 | -4.15 | -4.17 | -4.13 | -4.14 | -4.11 | -3.70 | -3.77 | -3.75 | -3.74 | -3.71 | -3.75 | | | |
| | 70 | -4.84 | -4.84 | -4.87 | -4.82 | -4.83 | -4.88 | -4.10 | -4.15 | -4.12 | -4.12 | -4.14 | -4.15 | -3.73 | -3.77 | -3.75 | -3.74 | -3.75 | -3.77 | | | |
| | 100 | -4.74 | -4.77 | -4.79 | -4.81 | -4.80 | -4.83 | -4.12 | -4.10 | -4.14 | -4.14 | -4.15 | -4.15 | -3.77 | -3.77 | -3.78 | -3.79 | -3.79 | -3.78 | | | |
| | 200 | -4.73 | -4.77 | -4.80 | -4.73 | -4.81 | -4.82 | -4.12 | -4.12 | -4.11 | -4.13 | -4.16 | -4.18 | -3.80 | -3.81 | -3.78 | -3.79 | -3.80 | -3.80 | | | |
| k + 1 = 4 | | | | | | | | | | | | | | | | | | | | | | |
| p | (T,N) | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | | | | | | |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | | | |
| 0 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 30 | -5.86 | -5.60 | -5.65 | -5.93 | -5.66 | -5.61 | -4.30 | -4.22 | -4.26 | -4.28 | -4.19 | -4.19 | -3.62 | -3.62 | -3.63 | -3.65 | -3.59 | -3.60 | | | |
| | 50 | -4.88 | -5.04 | -4.98 | -4.94 | -5.02 | -4.91 | -4.12 | -4.16 | -4.10 | -4.08 | -4.10 | -4.08 | -3.67 | -3.71 | -3.69 | -3.67 | -3.67 | -3.65 | | | |
| | 70 | -4.81 | -4.84 | -4.79 | -4.81 | -4.82 | -4.83 | -4.13 | -4.10 | -4.07 | -4.11 | -4.11 | -4.11 | -3.74 | -3.74 | -3.72 | -3.74 | -3.73 | -3.75 | | | |
| | 100 | -4.77 | -4.76 | -4.75 | -4.80 | -4.76 | -4.79 | -4.10 | -4.10 | -4.11 | -4.11 | -4.12 | -4.11 | -3.77 | -3.76 | -3.77 | -3.77 | -3.77 | -3.78 | | | |
| | 200 | -4.74 | -4.73 | -4.79 | -4.79 | -4.78 | -4.75 | -4.10 | -4.12 | -4.09 | -4.12 | -4.18 | -4.16 | -3.80 | -3.79 | -3.79 | -3.81 | -3.81 | -3.81 | | | |
| 4 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 30 | -6.58 | -6.72 | -6.64 | -6.68 | -6.33 | -6.52 | -4.38 | -4.37 | -4.44 | -4.48 | -4.34 | -4.34 | -3.54 | -3.52 | -3.54 | -3.58 | -3.50 | -3.47 | | | |
| | 50 | -4.93 | -4.86 | -4.92 | -4.88 | -4.84 | -4.93 | -4.01 | -4.01 | -4.01 | -4.05 | -4.01 | -3.98 | -3.57 | -3.55 | -3.58 | -3.59 | -3.59 | -3.58 | | | |
| | 70 | -4.78 | -4.80 | -4.81 | -4.75 | -4.79 | -4.90 | -4.05 | -4.03 | -4.06 | -4.01 | -4.06 | -4.06 | -3.68 | -3.70 | -3.64 | -3.63 | -3.69 | -3.66 | | | |
| | 100 | -4.74 | -4.79 | -4.77 | -4.75 | -4.75 | -4.79 | -4.06 | -4.06 | -4.05 | -4.08 | -4.09 | -4.08 | -3.70 | -3.70 | -3.72 | -3.71 | -3.73 | -3.71 | | | |
| | 200 | -4.72 | -4.71 | -4.76 | -4.75 | -4.76 | -4.75 | -4.08 | -4.10 | -4.08 | -4.12 | -4.11 | -4.13 | -3.77 | -3.78 | -3.76 | -3.77 | -3.79 | -3.81 | | | |
| k + 1 = 5 | | | | | | | | | | | | | | | | | | | | | | |
| p | (T,N) | 1% ($CADF_{i,k+1}$) | | | | | 5% ($CADF_{i,k+1}$) | | | | | 10% ($CADF_{i,k+1}$) | | | | | | | | | | |
| | | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | 20 | 30 | 50 | 70 | 100 | 200 | | | |
| 0 | 20 | -6.29 | -6.21 | -6.13 | -6.30 | -6.26 | -6.30 | -4.72 | -4.72 | -4.71 | -4.78 | -4.76 | -4.72 | -4.13 | -4.10 | -4.07 | -4.12 | -4.10 | -4.12 | | | |
| | 30 | -5.57 | -5.52 | -5.46 | -5.41 | -5.49 | -5.46 | -4.56 | -4.48 | -4.50 | -4.52 | -4.49 | -4.47 | -4.07 | -4.02 | -4.04 | -4.05 | -4.04 | -4.05 | | | |
| | 50 | -5.16 | -5.24 | -5.29 | -5.15 | -5.14 | -5.22 | -4.44 | -4.44 | -4.47 | -4.41 | -4.40 | -4.43 | -4.04 | -4.05 | -4.05 | -4.01 | -4.00 | -4.04 | | | |
| | 70 | -5.07 | -5.05 | -5.11 | -5.08 | -5.15 | -5.04 | -4.42 | -4.41 | -4.41 | -4.38 | -4.39 | -4.37 | -4.05 | -4.05 | -4.03 | -4.03 | -4.02 | -4.04 | | | |
| | 100 | -5.01 | -5.05 | -5.01 | -5.08 | -4.99 | -5.04 | -4.35 | -4.39 | -4.37 | -4.37 | -4.33 | -4.37 | -4.02 | -4.03 | -4.03 | -4.03 | -4.00 | -4.02 | | | |
| | 200 | -5.01 | -4.95 | -5.02 | -4.99 | -5.06 | -4.97 | -4.35 | -4.34 | -4.37 | -4.35 | -4.38 | -4.36 | -4.02 | -4.03 | -4.02 | -4.03 | -4.03 | -4.04 | | | |
| 1 | 20 | -8.55 | -8.22 | -8.78 | -8.33 | -8.46 | -8.45 | -5.29 | -5.39 | -5.36 | -5.35 | -5.33 | -5.23 | -4.25 | -4.32 | -4.14 | -4.25 | -4.23 | -4.21 | | | |
| | 30 | -5.70 | -5.70 | -5.56 | -5.64 | -5.57 | -5.61 | -4.53 | -4.48 | -4.48 | -4.46 | -4.46 | -4.47 | -3.99 | -3.94 | -3.94 | -3.96 | -3.96 | -3.95 | | | |
| | 50 | -5.13 | -5.19 | -5.24 | -5.15 | -5.25 | -5.18 | -4.38 | -4.40 | -4.38 | -4.39 | -4.39 | -4.35 | -3.97 | -3.98 | -3.96 | -3.98 | -3.95 | -3.95 | | | |
| | 70 | -5.07 | -5.13 | -5.08 | -5.05 | -5.10 | -5.05 | -4.37 | -4.36 | -4.39 | -4.35 | -4.37 | -4.35 | -4.00 | -3.98 | -3.98 | -3.98 | -4.00 | -3.99 | | | |
| | 100 | -4.92 | -5.03 | -5.05 | -5.01 | -5.03 | -5.01 | -4.30 | -4.38 | -4.35 | -4.37 | -4.33 | -4.37 | -3.98 | -3.99 | -4.00 | -4.02 | -3.99 | -4.00 | | | |
| | 200 | -5.01 | -4.99 | -4.99 | -5.02 | -5.00 | -4.96 | -4.33 | -4.32 | -4.34 | -4.34 | -4.37 | -4.31 | -4.01 | -3.99 | -4.01 | -4.02 | -4.02 | -4.02 | | | |
| 2 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 30 | -5.73 | -5.86 | -5.82 | -5.82 | -5.80 | -5.81 | -4.31 | -4.33 | -4.36 | -4.34 | -4.33 | -4.39 | -3.68 | -3.68 | -3.74 | -3.70 | -3.71 | -3.73 | | | |
| | 50 | -5.10 | -5.09 | -5.05 | -5.12 | -5.12 | -5.12 | -4.25 | -4.28 | -4.25 | -4.24 | -4.29 | -4.26 | -3.83 | -3.83 | -3.83 | -3.85 | -3.85 | -3.81 | | | |
| | 70 | -5.03 | -5.04 | -5.11 | -5.03 | -4.98 | -5.00 | -4.27 | -4.30 | -4.31 | -4.28 | -4.28 | -4.28 | -3.89 | -3.92 | -3.92 | -3.89 | -3.88 | -3.91 | | | |
| | 100 | -4.91 | -4.96 | -4.97 | -5.00 | -5.02 | -4.92 | -4.27 | -4.29 | -4.29 | -4.30 | -4.29 | -4.30 | -3.92 | -3.93 | -3.94 | -3.94 | -3.92 | -3.9 | | | |