Time Varying BC95-AJTT-HN-hY-short period

SFACD BC95-AJTT-HN-hY Elasticities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | elY |
| Country code |  |  |  |  |
| 1.Aust | 6.527 | -10.175 | 8.331 | 4.683 |
| 2.NZ | 6.527 | -10.175 | 8.331 | 4.683 |
| 3.Ontario | 6.527 | -10.175 | 8.331 | 4.683 |
| Total | 6.527 | -10.175 | 8.331 | 4.683 |

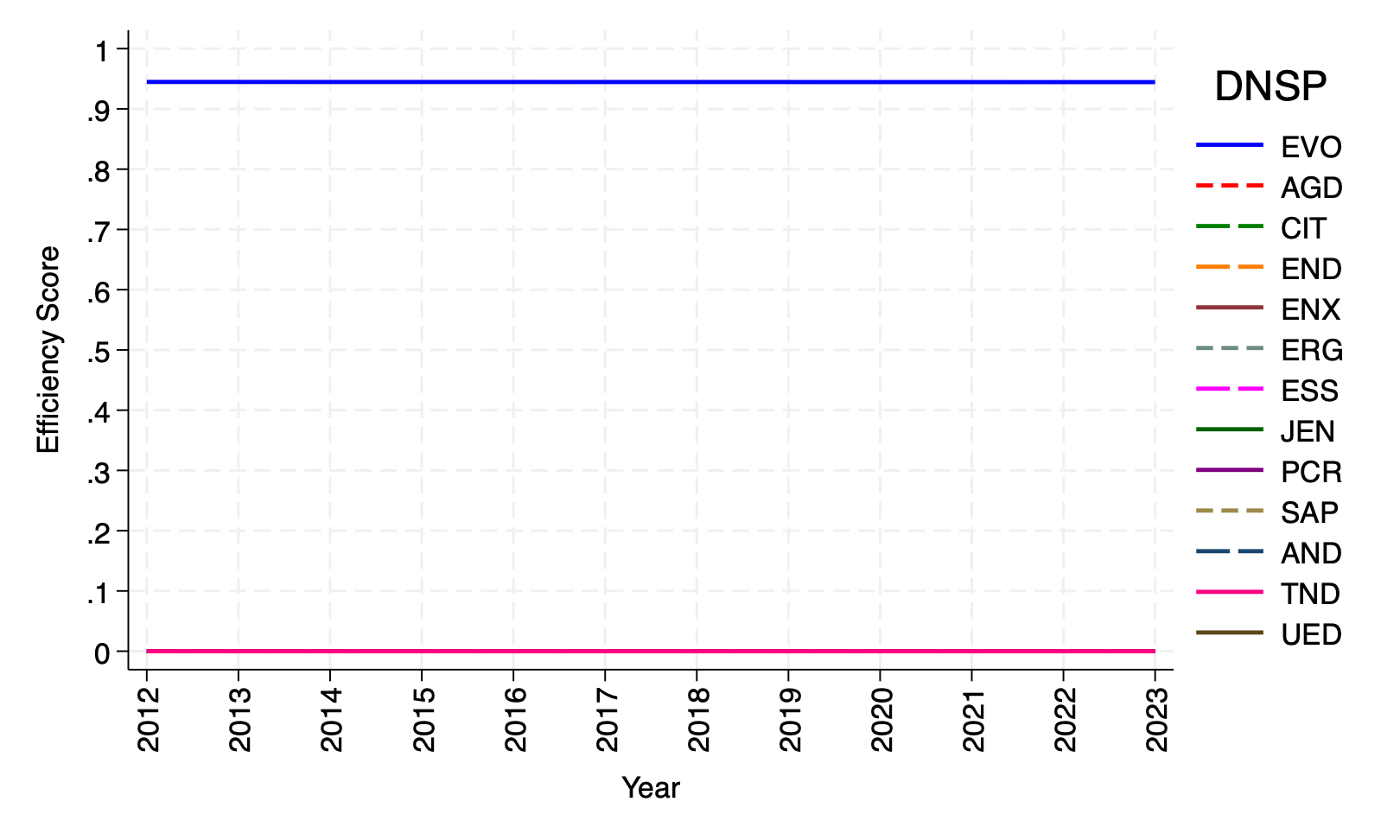
SFACD BC95-AJTT-HN Efficiency Scores

|  |  |  |  |
| --- | --- | --- | --- |
|  | Cost efficiency via E(exp(-u)|e) | 95% lower bound of E(exp(-u)|e) | 95% upper bound of E(exp(-u)|e) |
| dnsp |  |  |  |
| 1 | .9446437 | .9446437 | .9446437 |
| 2 | 3.80e-07 | 3.80e-07 | 3.80e-07 |
| 3 | . | . | . |
| 4 | . | . | . |
| 5 | 4.02e-21 | 4.02e-21 | 4.02e-21 |
| 6 | 2.11e-11 | 2.11e-11 | 2.11e-11 |
| 7 | 0 | 0 | 0 |
| 8 | . | . | . |
| 9 | 5.93e-36 | 5.93e-36 | 5.93e-36 |
| 10 | 2.63e-07 | 2.63e-07 | 2.63e-07 |
| 11 | 8.20e-23 | 8.20e-23 | 8.20e-23 |
| 12 | 1.16e-07 | 1.16e-07 | 1.16e-07 |
| 13 | . | . | . |
| Total | .1049605 | .1049605 | .1049605 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Cost efficiency via E(exp(-u)|e) | 95% lower bound of E(exp(-u)|e) | 95% upper bound of E(exp(-u)|e) |
| Country code |  |  |  |
| 1.Aust | .1049605 | .1049605 | .1049605 |
| 2.NZ | 0 | 0 | 0 |
| 3.Ontario | . | . | . |
| Total | .0337373 | .0337373 | .0337373 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | |
|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| dnsp |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | .9447904 | .9447637 | .9447371 | .9447104 | .9446837 | .9446571 | .9446304 | .9446037 | .9445771 | .9445504 | .9445238 | .9444971 | .9446437 |
| 2 | 3.95e-07 | 3.92e-07 | 3.89e-07 | 3.86e-07 | 3.84e-07 | 3.81e-07 | 3.78e-07 | 3.75e-07 | 3.73e-07 | 3.70e-07 | 3.67e-07 | 3.64e-07 | 3.80e-07 |
| 3 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| 4 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| 5 | 4.56e-21 | 4.46e-21 | 4.35e-21 | 4.25e-21 | 4.15e-21 | 4.06e-21 | 3.97e-21 | 3.87e-21 | 3.79e-21 | 3.70e-21 | 3.61e-21 | 3.53e-21 | 4.02e-21 |
| 6 | 2.25e-11 | 2.22e-11 | 2.20e-11 | 2.17e-11 | 2.14e-11 | 2.12e-11 | 2.09e-11 | 2.07e-11 | 2.04e-11 | 2.02e-11 | 1.99e-11 | 1.97e-11 | 2.11e-11 |
| 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| 9 | 7.29e-36 | 7.01e-36 | 6.73e-36 | 6.46e-36 | 6.21e-36 | 5.97e-36 | 5.73e-36 | 5.50e-36 | 5.29e-36 | 5.18e-36 | 4.98e-36 | 4.78e-36 | 5.93e-36 |
| 10 | 2.74e-07 | 2.72e-07 | 2.70e-07 | 2.68e-07 | 2.66e-07 | 2.64e-07 | 2.62e-07 | 2.60e-07 | 2.58e-07 | 2.56e-07 | 2.54e-07 | 2.52e-07 | 2.63e-07 |
| 11 | 9.36e-23 | 9.13e-23 | 8.90e-23 | 8.68e-23 | 8.46e-23 | 8.25e-23 | 8.05e-23 | 7.85e-23 | 7.65e-23 | 7.55e-23 | 7.37e-23 | 7.18e-23 | 8.20e-23 |
| 12 | 1.21e-07 | 1.20e-07 | 1.19e-07 | 1.19e-07 | 1.18e-07 | 1.17e-07 | 1.16e-07 | 1.15e-07 | 1.14e-07 | 1.13e-07 | 1.12e-07 | 1.11e-07 | 1.16e-07 |
| 13 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| Total | .1049768 | .1049738 | .1049709 | .1049679 | .1049649 | .104962 | .104959 | .1049561 | .1049531 | .1049501 | .1049472 | .1049442 | .1049605 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | | |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| Country code |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.Aust |  | .1049768 | .1049738 | .1049709 | .1049679 | .1049649 | .104962 | .104959 | .1049561 | .1049531 | .1049501 | .1049472 | .1049442 | .1049605 |
| 2.NZ |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.Ontario | . | . | . | . | . | . | . | . | . | . | . | . |  | . |
| Total | . | .0337425 | .0337416 | .0337406 | .0337397 | .0337387 | .0337378 | .0337368 | .0337359 | .0337349 | .033734 | .033733 | .0337321 | .0337373 |



SFATLG BC95-AJTT-HN-hY Elasticities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | elY |
| Country code |  |  |  |  |
| 1.Aust | 0.056 | 0.207 | 0.690 | 0.953 |
| 2.NZ | 0.649 | 0.167 | 0.103 | 0.920 |
| 3.Ontario | 0.391 | 0.100 | 0.478 | 0.969 |
| Total | 0.400 | 0.144 | 0.407 | 0.950 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | elY |
| dnsp |  |  |  |  |
| 1 | 0.268 | 0.144 | 0.533 | 0.945 |
| 2 | -0.185 | 0.202 | 0.939 | 0.956 |
| 3 | 0.101 | 0.124 | 0.725 | 0.949 |
| 4 | -0.122 | 0.204 | 0.902 | 0.985 |
| 5 | -0.129 | 0.217 | 0.869 | 0.958 |
| 6 | -0.069 | 0.276 | 0.827 | 1.034 |
| 7 | 0.032 | 0.288 | 0.660 | 0.980 |
| 8 | 0.295 | 0.147 | 0.435 | 0.878 |
| 9 | 0.070 | 0.246 | 0.631 | 0.947 |
| 10 | -0.012 | 0.250 | 0.739 | 0.977 |
| 11 | 0.170 | 0.226 | 0.508 | 0.904 |
| 12 | 0.184 | 0.205 | 0.589 | 0.978 |
| 13 | 0.118 | 0.167 | 0.613 | 0.898 |
| Total | 0.056 | 0.207 | 0.690 | 0.953 |

SFATLG BC95-AJTT-HN-hY Monotonicity Violations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | montot |
| Country code |  |  |  |  |
| 1.Aust | 0.372 | 0.000 | 0.000 | 0.372 |
| 2.NZ | 0.000 | 0.000 | 0.346 | 0.346 |
| 3.Ontario | 0.103 | 0.000 | 0.000 | 0.103 |
| Total | 0.128 | 0.000 | 0.108 | 0.236 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | montot |
| dnsp |  |  |  |  |
| 1 | 0.000 | 0.000 | 0.000 | 0.000 |
| 2 | 1.000 | 0.000 | 0.000 | 1.000 |
| 3 | 0.000 | 0.000 | 0.000 | 0.000 |
| 4 | 1.000 | 0.000 | 0.000 | 1.000 |
| 5 | 1.000 | 0.000 | 0.000 | 1.000 |
| 6 | 1.000 | 0.000 | 0.000 | 1.000 |
| 7 | 0.000 | 0.000 | 0.000 | 0.000 |
| 8 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9 | 0.000 | 0.000 | 0.000 | 0.000 |
| 10 | 0.833 | 0.000 | 0.000 | 0.833 |
| 11 | 0.000 | 0.000 | 0.000 | 0.000 |
| 12 | 0.000 | 0.000 | 0.000 | 0.000 |
| 13 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total | 0.372 | 0.000 | 0.000 | 0.372 |

SFATLG BC95-AJTT-HN-hY Efficiency Scores

|  |  |  |  |
| --- | --- | --- | --- |
|  | Cost efficiency via E(exp(-u)|e) | 95% lower bound of E(exp(-u)|e) | 95% upper bound of E(exp(-u)|e) |
| dnsp |  |  |  |
| 1 | .584982 | .4818855 | .7034184 |
| 2 | .6875082 | .5754538 | .8041954 |
| 3 | .9962764 | . | . |
| 4 | .8344665 | .7023656 | .9567261 |
| 5 | .7460398 | .6207794 | .8870374 |
| 6 | .8254333 | .6939018 | .9531651 |
| 7 | .8417098 | .7179672 | .9424775 |
| 8 | .7496813 | .6217824 | .884713 |
| 9 | . | . | . |
| 10 | . | . | . |
| 11 | .8069472 | .6720658 | .9471505 |
| 12 | . | . | . |
| 13 | .9961384 | . | . |
| Total | .8069183 | .6357752 | .8848604 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Cost efficiency via E(exp(-u)|e) | 95% lower bound of E(exp(-u)|e) | 95% upper bound of E(exp(-u)|e) |
| Country code |  |  |  |
| 1.Aust | .8069183 | .6357752 | .8848604 |
| 2.NZ | .728141 | .602411 | .8589027 |
| 3.Ontario | .9602276 | .8755483 | .9986688 |
| Total | .8577666 | .7486234 | .9349898 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | |
|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| dnsp |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | .4773136 | .4550294 | .4175404 | .4420235 | .6784286 | .6402277 | .5770946 | .6004269 | .6315218 | .6793086 | .6628124 | .758056 | .584982 |
| 2 | .513343 | .6285056 | .5742184 | .4999427 | .5521176 | .6123147 | .6976589 | .7302802 | .8100737 | .8489856 | .9133927 | .8692653 | .6875082 |
| 3 | .9961317 | .9961727 | .9961129 | .9961705 | .9961762 | .9962346 | .9963967 | .9962912 | .9963495 | .9964705 | .9964389 | .996371 | .9962764 |
| 4 | .7628052 | .8495077 | .7539465 | .7576562 | .7345144 | .825704 | .8630432 | .8489015 | .9134949 | .900457 | .9038419 | .8997261 | .8344665 |
| 5 | .7087448 | .6713799 | .7131345 | .6799485 | .7440002 | .7585735 | .7480271 | .7855989 | .8129519 | .7973446 | .7917297 | .7410437 | .7460398 |
| 6 | .6985647 | .8196374 | .8104818 | .7533893 | .7749187 | .8452746 | .8497759 | .8382443 | .8071743 | .9237418 | .9201883 | .8638091 | .8254333 |
| 7 | .5983328 | .6633058 | .7415096 | .8221577 | .9235047 | .9336963 | .9218453 | .8739691 | .8925875 | .9046638 | .9271303 | .8978152 | .8417098 |
| 8 | .6684251 | .6857529 | .7141346 | .7141181 | .6868706 | .6691126 | .7178412 | .7217991 | .8044937 | .8690676 | .8884924 | .8560678 | .7496813 |
| 9 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| 10 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| 11 | .834388 | .7997203 | .7855577 | .7430056 | .7014262 | .7866642 | .8454019 | .8401277 | .82849 | .8182307 | .8351308 | .8652232 | .8069472 |
| 12 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| 13 | .9958857 | .9960676 | .9960386 | .9961199 | .9959046 | .9959875 | .99632 | .9963233 | .9962664 | .9962745 | .9962392 | .996233 | .9961384 |
| Total | .7253934 | .7565079 | .7502675 | .7404532 | .7787862 | .806379 | .8213405 | .8231962 | .8493404 | .8734545 | .8835397 | .8743611 | .8069183 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | | |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| Country code |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.Aust |  | .7253934 | .7565079 | .7502675 | .7404532 | .7787862 | .806379 | .8213405 | .8231962 | .8493404 | .8734545 | .8835397 | .8743611 | .8069183 |
| 2.NZ |  | .7897511 | .8074292 | .7795893 | .7831979 | .7546341 | .7405926 | .7214887 | .7034799 | .6727195 | .682042 | .6616348 | .6411336 | .728141 |
| 3.Ontario | .9607571 | .9615233 | .9564057 | .9557883 | .9577953 | .955471 | .9568022 | .9576504 | .9608998 | .9665951 | .9677269 | .9653163 |  | .9602276 |
| Total | .9607571 | .864541 | .8731379 | .8626333 | .8631269 | .8592167 | .8600399 | .8567854 | .8528306 | .8501092 | .8578866 | .851735 | .7215568 | .8577666 |

