Time Varying BC95-JTT-HN-GTC-hY-long

SFACD BC95-JTT-HN-GTC-hY Elasticities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | elY |
| Country code |  |  |  |  |
| 1.Aust | 0.429 | -0.337 | 0.394 | 0.486 |
| 2.NZ | 0.429 | -0.337 | 0.394 | 0.486 |
| 3.Ontario | 0.429 | -0.337 | 0.394 | 0.486 |
| Total | 0.429 | -0.337 | 0.394 | 0.486 |

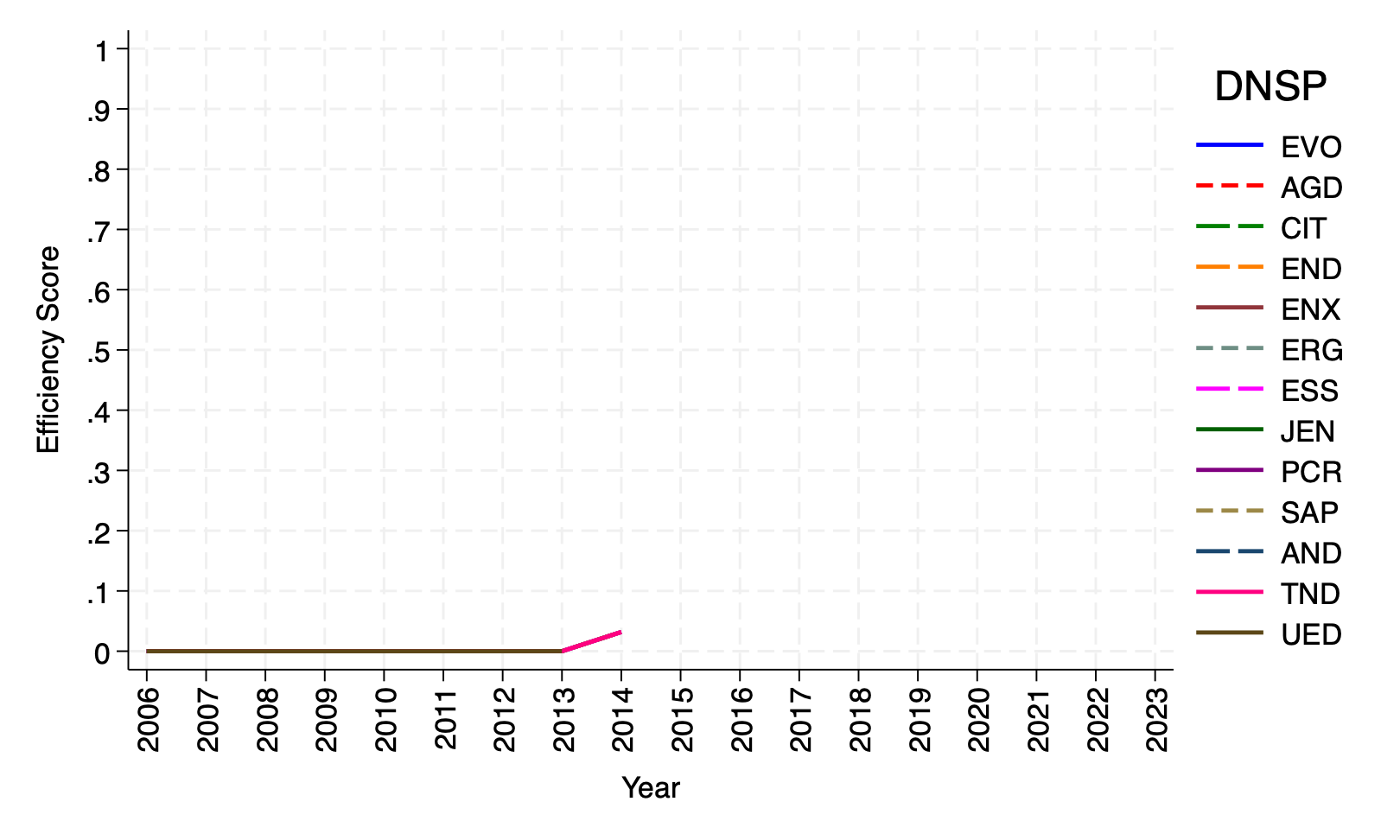
SFACD BC95-JTT-HN-GTC-hY Efficiency Scores

|  |  |  |  |
| --- | --- | --- | --- |
|  | 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 | .0035423 | .0035423 | .0035423 |
| 2 | .0035423 | .0035423 | .0035423 |
| 3 | 1.51e-06 | 1.51e-06 | 1.51e-06 |
| 4 | .0035423 | .0035423 | .0035423 |
| 5 | .0035423 | .0035423 | .0035423 |
| 6 | .0035423 | .0035423 | .0035423 |
| 7 | .0035423 | .0035423 | .0035423 |
| 8 | 1.51e-06 | 1.51e-06 | 1.51e-06 |
| 9 | 1.51e-06 | 1.51e-06 | 1.51e-06 |
| 10 | .0035423 | .0035423 | .0035423 |
| 11 | 1.51e-06 | 1.51e-06 | 1.51e-06 |
| 12 | .0035423 | .0035423 | .0035423 |
| 13 | 1.51e-06 | 1.51e-06 | 1.51e-06 |
| Total | .0022777 | .0022777 | .0022777 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | 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 | .0022777 | .0022777 | .0022777 |
| 2.NZ | .005827 | .005827 | .005827 |
| 3.Ontario | .0065569 | .0065569 | .0065569 |
| Total | .0054465 | .0054465 | .0054465 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | | | | | | | |
|  | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| dnsp |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 0 | 0 | 0 | 1.90e-36 | 1.33e-29 | 9.31e-23 | 6.51e-16 | 4.56e-09 | .0318808 | . | . | . | . | . | . | . | . | . | .0035423 |
| 2 | 0 | 0 | 0 | 1.90e-36 | 1.33e-29 | 9.31e-23 | 6.51e-16 | 4.56e-09 | .0318808 | . | . | . | . | . | . | . | . | . | .0035423 |
| 3 | 0 | 0 | 0 | 5.03e-33 | 3.52e-26 | 2.46e-19 | 1.72e-12 | .0000121 | . | . | . | . | . | . | . | . | . | . | 1.51e-06 |
| 4 | 0 | 0 | 0 | 1.90e-36 | 1.33e-29 | 9.31e-23 | 6.51e-16 | 4.56e-09 | .0318808 | . | . | . | . | . | . | . | . | . | .0035423 |
| 5 | 0 | 0 | 0 | 1.90e-36 | 1.33e-29 | 9.31e-23 | 6.51e-16 | 4.56e-09 | .0318808 | . | . | . | . | . | . | . | . | . | .0035423 |
| 6 | 0 | 0 | 0 | 1.90e-36 | 1.33e-29 | 9.31e-23 | 6.51e-16 | 4.56e-09 | .0318808 | . | . | . | . | . | . | . | . | . | .0035423 |
| 7 | 0 | 0 | 0 | 1.90e-36 | 1.33e-29 | 9.31e-23 | 6.51e-16 | 4.56e-09 | .0318808 | . | . | . | . | . | . | . | . | . | .0035423 |
| 8 | 0 | 0 | 0 | 5.03e-33 | 3.52e-26 | 2.46e-19 | 1.72e-12 | .0000121 | . | . | . | . | . | . | . | . | . | . | 1.51e-06 |
| 9 | 0 | 0 | 0 | 5.03e-33 | 3.52e-26 | 2.46e-19 | 1.72e-12 | .0000121 | . | . | . | . | . | . | . | . | . | . | 1.51e-06 |
| 10 | 0 | 0 | 0 | 1.90e-36 | 1.33e-29 | 9.31e-23 | 6.51e-16 | 4.56e-09 | .0318808 | . | . | . | . | . | . | . | . | . | .0035423 |
| 11 | 0 | 0 | 0 | 5.03e-33 | 3.52e-26 | 2.46e-19 | 1.72e-12 | .0000121 | . | . | . | . | . | . | . | . | . | . | 1.51e-06 |
| 12 | 0 | 0 | 0 | 1.90e-36 | 1.33e-29 | 9.31e-23 | 6.51e-16 | 4.56e-09 | .0318808 | . | . | . | . | . | . | . | . | . | .0035423 |
| 13 | 0 | 0 | 0 | 5.03e-33 | 3.52e-26 | 2.46e-19 | 1.72e-12 | .0000121 | . | . | . | . | . | . | . | . | . | . | 1.51e-06 |
| Total | 0 | 0 | 0 | 1.94e-33 | 1.35e-26 | 9.48e-20 | 6.63e-13 | 4.64e-06 | .0318808 | . | . | . | . | . | . | . | . | . | .0022777 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | | | | | | | | |
|  | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| Country code |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.Aust |  | 0 | 0 | 0 | 1.94e-33 | 1.35e-26 | 9.48e-20 | 6.63e-13 | 4.64e-06 | .0318808 | . | . | . | . | . | . | . | . | . | .0022777 |
| 2.NZ |  | . | . | . | . | . | . | . | . | . | .0522406 | .000202 | 7.81e-07 | 3.02e-09 | 1.17e-11 | 4.52e-14 | 1.75e-16 | 6.76e-19 | 2.61e-21 | .005827 |
| 3.Ontario | . | . | . | . | . | . | . | . | . | .0590094 | 2.53e-06 | 1.08e-10 | 4.64e-15 | 1.99e-19 | 8.51e-24 | 3.65e-28 | 1.56e-32 | 6.69e-37 |  | .0065569 |
| Total | . | 0 | 0 | 0 | 1.94e-33 | 1.35e-26 | 9.48e-20 | 6.63e-13 | 4.64e-06 | .0531438 | .0206801 | .00008 | 3.09e-07 | 1.20e-09 | 4.62e-12 | 1.79e-14 | 6.92e-17 | 2.67e-19 | 2.61e-21 | .0054465 |



SFATLG BC95-JTT-HN-GTC-hY long Elasticities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | elY |
| Country code |  |  |  |  |
| 1.Aust | -6.5e+03 | -6.7e+03 | -6.3e+03 | -2.0e+04 |
| 2.NZ | 1371.916 | 1798.028 | 1235.402 | 4405.345 |
| 3.Ontario | 2009.824 | 1835.401 | 2034.865 | 5880.090 |
| Total | 0.586 | -0.764 | 0.926 | 0.748 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | elY |
| dnsp |  |  |  |  |
| 1 | -1.5e+03 | -1.8e+03 | -1.5e+03 | -4.8e+03 |
| 2 | -9.0e+03 | -9.7e+03 | -8.8e+03 | -2.7e+04 |
| 3 | -2.6e+03 | -3.3e+03 | -2.6e+03 | -8.5e+03 |
| 4 | -7.8e+03 | -8.2e+03 | -7.5e+03 | -2.4e+04 |
| 5 | -8.9e+03 | -9.4e+03 | -8.7e+03 | -2.7e+04 |
| 6 | -9.3e+03 | -8.9e+03 | -8.8e+03 | -2.7e+04 |
| 7 | -9.5e+03 | -9.2e+03 | -9.3e+03 | -2.8e+04 |
| 8 | -2.6e+03 | -3.2e+03 | -2.8e+03 | -8.7e+03 |
| 9 | -8.0e+03 | -8.0e+03 | -7.8e+03 | -2.4e+04 |
| 10 | -8.6e+03 | -8.6e+03 | -8.3e+03 | -2.5e+04 |
| 11 | -6.8e+03 | -7.0e+03 | -6.8e+03 | -2.1e+04 |
| 12 | -4.5e+03 | -4.4e+03 | -4.3e+03 | -1.3e+04 |
| 13 | -5.2e+03 | -5.8e+03 | -5.2e+03 | -1.6e+04 |
| Total | -6.5e+03 | -6.7e+03 | -6.3e+03 | -2.0e+04 |

SFATLG BC95-JTT-HN-GTC-hY long Monotonicity Violations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | montot |
| Country code |  |  |  |  |
| 1.Aust | 1.000 | 1.000 | 1.000 | 1.000 |
| 2.NZ | 0.225 | 0.211 | 0.246 | 0.246 |
| 3.Ontario | 0.241 | 0.241 | 0.241 | 0.241 |
| Total | 0.398 | 0.393 | 0.404 | 0.404 |

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

SFATLG BC95-JTT-HN-GTC-hY long 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 | .0000981 | .0000981 | .0000981 |
| 2 | .0000981 | .0000981 | .0000981 |
| 3 | 1.14e-11 | 1.14e-11 | 1.14e-11 |
| 4 | .0000981 | .0000981 | .0000981 |
| 5 | .0000981 | .0000981 | .0000981 |
| 6 | .0000981 | .0000981 | .0000981 |
| 7 | .0000981 | .0000981 | .0000981 |
| 8 | 1.14e-11 | 1.14e-11 | 1.14e-11 |
| 9 | 1.14e-11 | 1.14e-11 | 1.14e-11 |
| 10 | .0000981 | .0000981 | .0000981 |
| 11 | 1.14e-11 | 1.14e-11 | 1.14e-11 |
| 12 | .0000981 | .0000981 | .0000981 |
| 13 | 1.14e-11 | 1.14e-11 | 1.14e-11 |
| Total | .000063 | .000063 | .000063 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | 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 | .000063 | .000063 | .000063 |
| 2.NZ | .000262 | .000262 | .000262 |
| 3.Ontario | .0003468 | .0003468 | .0003468 |
| Total | .0002617 | .0002617 | .0002617 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | | | | | | | |
|  | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| dnsp |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1.01e-31 | 9.46e-18 | .0008826 | . | . | . | . | . | . | . | . | . | .0000981 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1.01e-31 | 9.46e-18 | .0008826 | . | . | . | . | . | . | . | . | . | .0000981 |
| 3 | 0 | 0 | 0 | 0 | 0 | 1.05e-38 | 9.79e-25 | 9.14e-11 | . | . | . | . | . | . | . | . | . | . | 1.14e-11 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1.01e-31 | 9.46e-18 | .0008826 | . | . | . | . | . | . | . | . | . | .0000981 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1.01e-31 | 9.46e-18 | .0008826 | . | . | . | . | . | . | . | . | . | .0000981 |
| 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1.01e-31 | 9.46e-18 | .0008826 | . | . | . | . | . | . | . | . | . | .0000981 |
| 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1.01e-31 | 9.46e-18 | .0008826 | . | . | . | . | . | . | . | . | . | .0000981 |
| 8 | 0 | 0 | 0 | 0 | 0 | 1.05e-38 | 9.79e-25 | 9.14e-11 | . | . | . | . | . | . | . | . | . | . | 1.14e-11 |
| 9 | 0 | 0 | 0 | 0 | 0 | 1.05e-38 | 9.79e-25 | 9.14e-11 | . | . | . | . | . | . | . | . | . | . | 1.14e-11 |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 1.01e-31 | 9.46e-18 | .0008826 | . | . | . | . | . | . | . | . | . | .0000981 |
| 11 | 0 | 0 | 0 | 0 | 0 | 1.05e-38 | 9.79e-25 | 9.14e-11 | . | . | . | . | . | . | . | . | . | . | 1.14e-11 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 1.01e-31 | 9.46e-18 | .0008826 | . | . | . | . | . | . | . | . | . | .0000981 |
| 13 | 0 | 0 | 0 | 0 | 0 | 1.05e-38 | 9.79e-25 | 9.14e-11 | . | . | . | . | . | . | . | . | . | . | 1.14e-11 |
| Total | 0 | 0 | 0 | 0 | 0 | 4.03e-39 | 3.76e-25 | 3.51e-11 | .0008826 | . | . | . | . | . | . | . | . | . | .000063 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | | | | | | | | |
|  | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| Country code |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.Aust |  | 0 | 0 | 0 | 0 | 0 | 4.03e-39 | 3.76e-25 | 3.51e-11 | .0008826 | . | . | . | . | . | . | . | . | . | .000063 |
| 2.NZ |  | . | . | . | . | . | . | . | . | . | .0023581 | 2.68e-08 | 3.04e-13 | 3.46e-18 | 3.93e-23 | 4.46e-28 | 5.07e-33 | 5.76e-38 | 0 | .000262 |
| 3.Ontario | . | . | . | . | . | . | . | . | . | .0031216 | 3.88e-12 | 4.83e-21 | 6.02e-30 | 7.49e-39 | 0 | 0 | 0 | 0 |  | .0003468 |
| Total | . | 0 | 0 | 0 | 0 | 0 | 4.03e-39 | 3.76e-25 | 3.51e-11 | .0026375 | .0009334 | 1.06e-08 | 1.20e-13 | 1.37e-18 | 1.55e-23 | 1.77e-28 | 2.01e-33 | 2.28e-38 | 0 | .0002617 |

