Time Varying BC95-JTT-HN-GTC-long

SFACD BC95-JTT-HN-GTC Elasticities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | elY |
| Country code |  |  |  |  |
| 1.Aust | -1.174 | -50.545 | 15.067 | -36.653 |
| 2.NZ | -1.174 | -50.545 | 15.067 | -36.653 |
| 3.Ontario | -1.174 | -50.545 | 15.067 | -36.653 |
| Total | -1.174 | -50.545 | 15.067 | -36.653 |

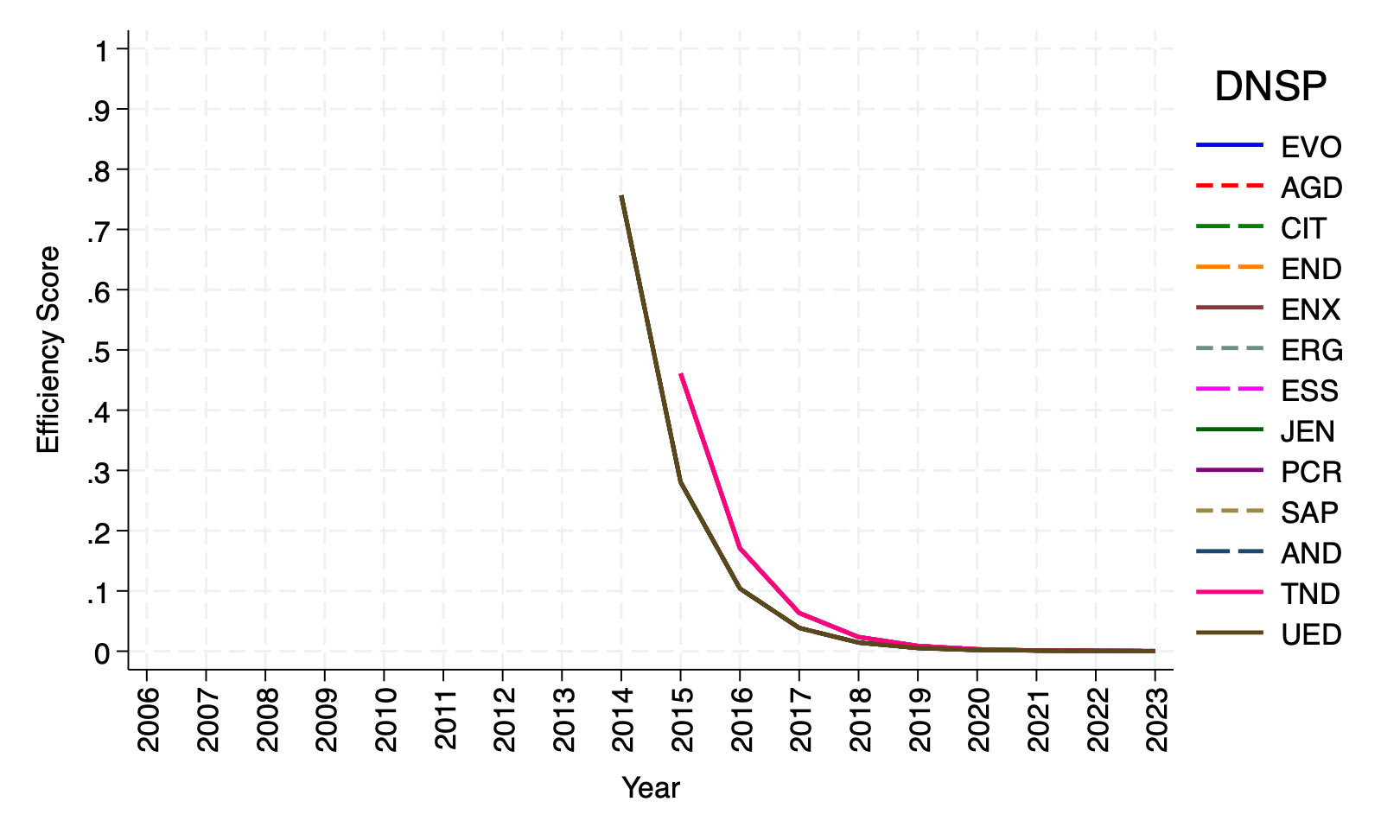
SFACD BC95-JTT-HN-GTC Efficiency Scores

|  |  |  |  |
| --- | --- | --- | --- |
|  | 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 | .0813868 | .0813868 | .0813868 |
| 2 | .0813868 | .0813868 | .0813868 |
| 3 | .1203393 | .1203393 | .1203393 |
| 4 | .0813868 | .0813868 | .0813868 |
| 5 | .0813868 | .0813868 | .0813868 |
| 6 | .0813868 | .0813868 | .0813868 |
| 7 | .0813868 | .0813868 | .0813868 |
| 8 | .1203393 | .1203393 | .1203393 |
| 9 | .1203393 | .1203393 | .1203393 |
| 10 | .0813868 | .0813868 | .0813868 |
| 11 | .1203393 | .1203393 | .1203393 |
| 12 | .0813868 | .0813868 | .0813868 |
| 13 | .1203393 | .1203393 | .1203393 |
| Total | .097351 | .097351 | .097351 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | 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 | .097351 | .097351 | .097351 |
| 2.NZ | .0000191 | .0000191 | .0000191 |
| 3.Ontario | .0001475 | .0001475 | .0001475 |
| Total | .0215137 | .0215137 | .0215137 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | | | | | | | |
|  | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| dnsp |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | . | . | . | . | . | . | . | . | . | .4607993 | .170952 | .0634215 | .0235288 | .0087289 | .0032384 | .0012014 | .0004457 | .0001654 | .0813868 |
| 2 | . | . | . | . | . | . | . | . | . | .4607993 | .170952 | .0634215 | .0235288 | .0087289 | .0032384 | .0012014 | .0004457 | .0001654 | .0813868 |
| 3 | . | . | . | . | . | . | . | . | .7565377 | .2806681 | .1041251 | .0386294 | .0143311 | .0053167 | .0019724 | .0012014 | .0004457 | .0001654 | .1203393 |
| 4 | . | . | . | . | . | . | . | . | . | .4607993 | .170952 | .0634215 | .0235288 | .0087289 | .0032384 | .0012014 | .0004457 | .0001654 | .0813868 |
| 5 | . | . | . | . | . | . | . | . | . | .4607993 | .170952 | .0634215 | .0235288 | .0087289 | .0032384 | .0012014 | .0004457 | .0001654 | .0813868 |
| 6 | . | . | . | . | . | . | . | . | . | .4607993 | .170952 | .0634215 | .0235288 | .0087289 | .0032384 | .0012014 | .0004457 | .0001654 | .0813868 |
| 7 | . | . | . | . | . | . | . | . | . | .4607993 | .170952 | .0634215 | .0235288 | .0087289 | .0032384 | .0012014 | .0004457 | .0001654 | .0813868 |
| 8 | . | . | . | . | . | . | . | . | .7565377 | .2806681 | .1041251 | .0386294 | .0143311 | .0053167 | .0019724 | .0012014 | .0004457 | .0001654 | .1203393 |
| 9 | . | . | . | . | . | . | . | . | .7565377 | .2806681 | .1041251 | .0386294 | .0143311 | .0053167 | .0019724 | .0012014 | .0004457 | .0001654 | .1203393 |
| 10 | . | . | . | . | . | . | . | . | . | .4607993 | .170952 | .0634215 | .0235288 | .0087289 | .0032384 | .0012014 | .0004457 | .0001654 | .0813868 |
| 11 | . | . | . | . | . | . | . | . | .7565377 | .2806681 | .1041251 | .0386294 | .0143311 | .0053167 | .0019724 | .0012014 | .0004457 | .0001654 | .1203393 |
| 12 | . | . | . | . | . | . | . | . | . | .4607993 | .170952 | .0634215 | .0235288 | .0087289 | .0032384 | .0012014 | .0004457 | .0001654 | .0813868 |
| 13 | . | . | . | . | . | . | . | . | .7565377 | .2806681 | .1041251 | .0386294 | .0143311 | .0053167 | .0019724 | .0012014 | .0004457 | .0001654 | .1203393 |
| Total | . | . | . | . | . | . | . | . | .7565377 | .3915181 | .1452494 | .0538861 | .0199912 | .0074165 | .0027515 | .0012014 | .0004457 | .0001654 | .097351 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 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 |  | . | . | . | . | . | . | . | . | .7565377 | .3915181 | .1452494 | .0538861 | .0199912 | .0074165 | .0027515 | .0012014 | .0004457 | .0001654 | .097351 |
| 2.NZ |  | . | . | . | . | . | . | . | . | . | .000172 | 1.42e-11 | 1.17e-18 | 9.60e-26 | 7.90e-33 | 0 | 0 | 0 | 0 | .0000191 |
| 3.Ontario | . | . | . | . | . | . | . | . | . | .0013279 | 7.92e-14 | 4.73e-24 | 2.82e-34 | 0 | 0 | 0 | 0 | 0 |  | .0001475 |
| Total | . | . | . | . | . | . | . | . | . | .1123882 | .0834919 | .0309548 | .0114839 | .0042604 | .0015806 | .0005864 | .000256 | .000095 | .0000672 | .0215137 |



SFATLG BC95-JTT-HN-GTC long Elasticities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | elY |
| Country code |  |  |  |  |
| 1.Aust | 13.682 | -30.319 | 8.909 | -7.728 |
| 2.NZ | -0.376 | 0.947 | 2.991 | 3.562 |
| 3.Ontario | 8.090 | -1.748 | 14.216 | 20.558 |
| Total | 6.645 | -6.997 | 9.588 | 9.236 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | elY |
| dnsp |  |  |  |  |
| 1 | 10.636 | -13.667 | 12.437 | 9.406 |
| 2 | 21.053 | -41.836 | 14.460 | -6.322 |
| 3 | 16.646 | -20.318 | 18.260 | 14.588 |
| 4 | 17.447 | -36.340 | 11.527 | -7.366 |
| 5 | 18.452 | -40.156 | 11.334 | -10.370 |
| 6 | 9.673 | -36.602 | -0.617 | -27.546 |
| 7 | 8.931 | -37.008 | -1.632 | -29.709 |
| 8 | 13.571 | -18.584 | 14.797 | 9.783 |
| 9 | 11.600 | -33.721 | 4.128 | -17.992 |
| 10 | 12.338 | -35.976 | 4.012 | -19.626 |
| 11 | 11.972 | -30.343 | 6.549 | -11.823 |
| 12 | 8.795 | -21.695 | 5.559 | -7.341 |
| 13 | 16.750 | -27.902 | 15.005 | 3.852 |
| Total | 13.682 | -30.319 | 8.909 | -7.728 |

SFATLG BC95-JTT-HN-GTC long Monotonicity Violations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | montot |
| Country code |  |  |  |  |
| 1.Aust | 0.000 | 1.000 | 0.154 | 1.000 |
| 2.NZ | 0.684 | 0.330 | 0.275 | 1.000 |
| 3.Ontario | 0.000 | 0.395 | 0.000 | 0.395 |
| Total | 0.213 | 0.504 | 0.118 | 0.712 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | montot |
| dnsp |  |  |  |  |
| 1 | 0.000 | 1.000 | 0.000 | 1.000 |
| 2 | 0.000 | 1.000 | 0.000 | 1.000 |
| 3 | 0.000 | 1.000 | 0.000 | 1.000 |
| 4 | 0.000 | 1.000 | 0.000 | 1.000 |
| 5 | 0.000 | 1.000 | 0.000 | 1.000 |
| 6 | 0.000 | 1.000 | 1.000 | 1.000 |
| 7 | 0.000 | 1.000 | 1.000 | 1.000 |
| 8 | 0.000 | 1.000 | 0.000 | 1.000 |
| 9 | 0.000 | 1.000 | 0.000 | 1.000 |
| 10 | 0.000 | 1.000 | 0.000 | 1.000 |
| 11 | 0.000 | 1.000 | 0.000 | 1.000 |
| 12 | 0.000 | 1.000 | 0.000 | 1.000 |
| 13 | 0.000 | 1.000 | 0.000 | 1.000 |
| Total | 0.000 | 1.000 | 0.154 | 1.000 |

SFATLG BC95-JTT-HN-GTC 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 | .0031708 | .0031708 | .0031708 |
| 2 | .0031708 | .0031708 | .0031708 |
| 3 | .0279704 | .0279704 | .0279704 |
| 4 | .0031708 | .0031708 | .0031708 |
| 5 | .0031708 | .0031708 | .0031708 |
| 6 | .0031708 | .0031708 | .0031708 |
| 7 | .0031708 | .0031708 | .0031708 |
| 8 | .0279704 | .0279704 | .0279704 |
| 9 | .0279704 | .0279704 | .0279704 |
| 10 | .0031708 | .0031708 | .0031708 |
| 11 | .0279704 | .0279704 | .0279704 |
| 12 | .0031708 | .0031708 | .0031708 |
| 13 | .0279704 | .0279704 | .0279704 |
| Total | .0133346 | .0133346 | .0133346 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | 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 | .0133346 | .0133346 | .0133346 |
| 2.NZ | .0037664 | .0037664 | .0037664 |
| 3.Ontario | .0506726 | .0506726 | .0506726 |
| Total | .0279718 | .0279718 | .0279718 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | | | | | | | |
|  | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| dnsp |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | . | . | . | . | . | . | . | . | . | .0282397 | .0002939 | 3.06e-06 | 3.18e-08 | 3.32e-10 | 3.45e-12 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0031708 |
| 2 | . | . | . | . | . | . | . | . | . | .0282397 | .0002939 | 3.06e-06 | 3.18e-08 | 3.32e-10 | 3.45e-12 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0031708 |
| 3 | . | . | . | . | . | . | . | . | .2767929 | .0028812 | .00003 | 3.12e-07 | 3.25e-09 | 3.38e-11 | 3.52e-13 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0279704 |
| 4 | . | . | . | . | . | . | . | . | . | .0282397 | .0002939 | 3.06e-06 | 3.18e-08 | 3.32e-10 | 3.45e-12 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0031708 |
| 5 | . | . | . | . | . | . | . | . | . | .0282397 | .0002939 | 3.06e-06 | 3.18e-08 | 3.32e-10 | 3.45e-12 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0031708 |
| 6 | . | . | . | . | . | . | . | . | . | .0282397 | .0002939 | 3.06e-06 | 3.18e-08 | 3.32e-10 | 3.45e-12 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0031708 |
| 7 | . | . | . | . | . | . | . | . | . | .0282397 | .0002939 | 3.06e-06 | 3.18e-08 | 3.32e-10 | 3.45e-12 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0031708 |
| 8 | . | . | . | . | . | . | . | . | .2767929 | .0028812 | .00003 | 3.12e-07 | 3.25e-09 | 3.38e-11 | 3.52e-13 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0279704 |
| 9 | . | . | . | . | . | . | . | . | .2767929 | .0028812 | .00003 | 3.12e-07 | 3.25e-09 | 3.38e-11 | 3.52e-13 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0279704 |
| 10 | . | . | . | . | . | . | . | . | . | .0282397 | .0002939 | 3.06e-06 | 3.18e-08 | 3.32e-10 | 3.45e-12 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0031708 |
| 11 | . | . | . | . | . | . | . | . | .2767929 | .0028812 | .00003 | 3.12e-07 | 3.25e-09 | 3.38e-11 | 3.52e-13 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0279704 |
| 12 | . | . | . | . | . | . | . | . | . | .0282397 | .0002939 | 3.06e-06 | 3.18e-08 | 3.32e-10 | 3.45e-12 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0031708 |
| 13 | . | . | . | . | . | . | . | . | .2767929 | .0028812 | .00003 | 3.12e-07 | 3.25e-09 | 3.38e-11 | 3.52e-13 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0279704 |
| Total | . | . | . | . | . | . | . | . | .2767929 | .0184864 | .0001924 | 2.00e-06 | 2.08e-08 | 2.17e-10 | 2.26e-12 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0133346 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 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 |  | . | . | . | . | . | . | . | . | .2767929 | .0184864 | .0001924 | 2.00e-06 | 2.08e-08 | 2.17e-10 | 2.26e-12 | 3.59e-14 | 3.74e-16 | 3.89e-18 | .0133346 |
| 2.NZ |  | 2.71e-27 | 3.71e-24 | 5.09e-21 | 6.98e-18 | 9.58e-15 | 1.31e-11 | 1.80e-08 | .0000247 | .0338725 | . | . | . | . | . | . | . | . | . | .0037664 |
| 3.Ontario | . | . | . | . | . | . | . | . | . | .4328047 | .0220632 | .0011247 | .0000573 | 2.92e-06 | 1.49e-07 | 7.60e-09 | 3.87e-10 | 1.97e-11 |  | .0506726 |
| Total | . | 2.71e-27 | 3.71e-24 | 5.09e-21 | 6.98e-18 | 9.58e-15 | 1.31e-11 | 1.80e-08 | .0000247 | .2750732 | .0209561 | .0008362 | .0000402 | 2.02e-06 | 1.03e-07 | 5.25e-09 | 2.67e-10 | 1.36e-11 | 3.89e-18 | .0279718 |

