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

SFACD BC95-JTT-HN-hY Elasticities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | elY |
| Country code |  |  |  |  |
| 1.Aust | 0.416 | 0.131 | 0.445 | 0.991 |
| 2.NZ | 0.416 | 0.131 | 0.445 | 0.991 |
| 3.Ontario | 0.416 | 0.131 | 0.445 | 0.991 |
| Total | 0.416 | 0.131 | 0.445 | 0.991 |

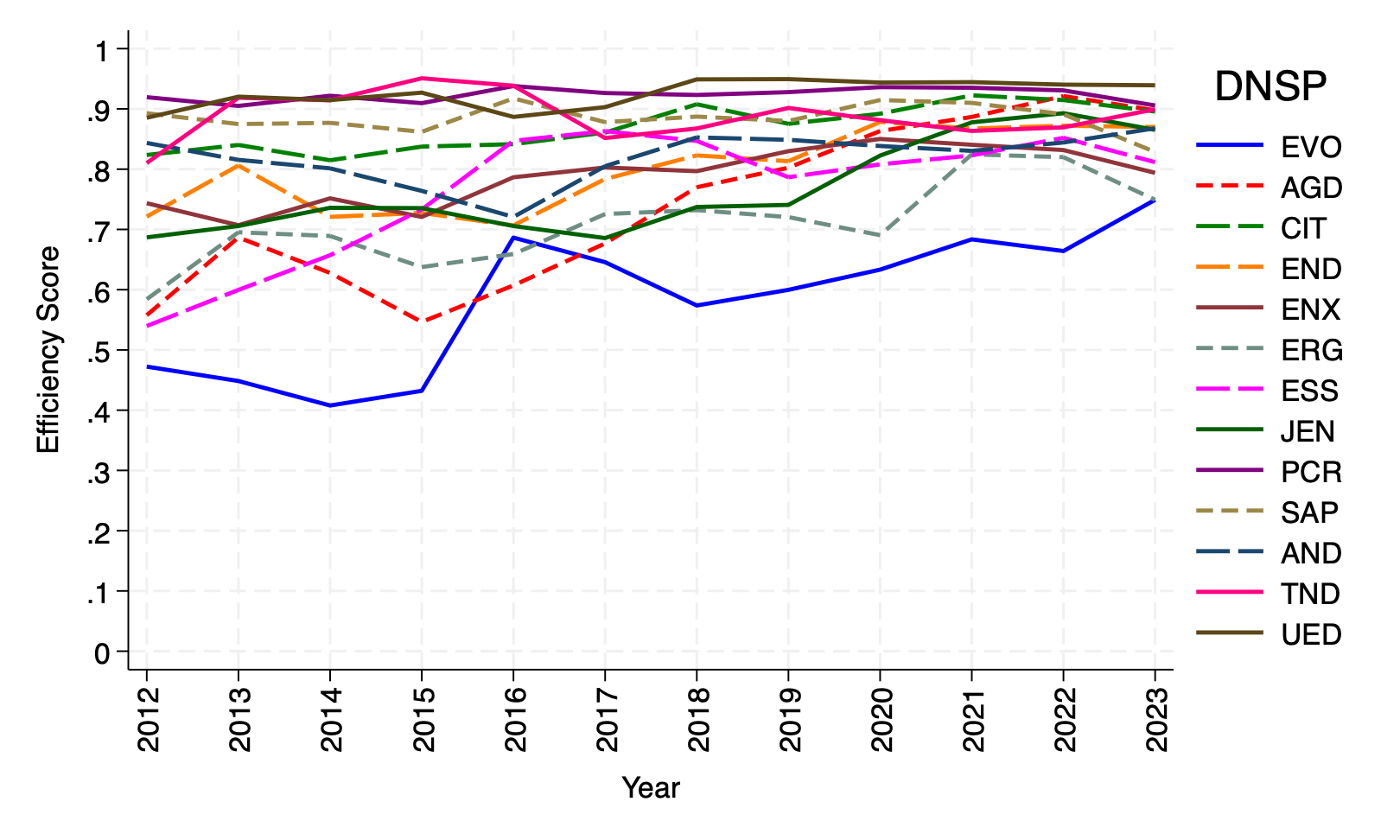
SFACD BC95-JTT-HN-hY Efficiency Scores

|  |  |  |  |
| --- | --- | --- | --- |
|  | 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 | .5830387 | .4617392 | .7258771 |
| 2 | .7369856 | .5795929 | .8897157 |
| 3 | .8688499 | .7106347 | .9893132 |
| 4 | .799172 | .6277262 | .9605494 |
| 5 | .7879173 | .6110108 | .9622922 |
| 6 | .7106316 | .5470719 | .895099 |
| 7 | .7639762 | .5949893 | .9256898 |
| 8 | .7659636 | .6105269 | .9260929 |
| 9 | .9232637 | .7823258 | .9971529 |
| 10 | .8844757 | .7192976 | .9936278 |
| 11 | .8193656 | .6461726 | .975604 |
| 12 | .888937 | .7373062 | .9925944 |
| 13 | .9252805 | .7917596 | .9970116 |
| Total | .8044506 | .6477041 | .9408169 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | 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 | .8044506 | .6477041 | .9408169 |
| 2.NZ | .7103592 | .5799462 | .8390903 |
| 3.Ontario | .9778734 | .9228907 | .9994004 |
| Total | .8575903 | .7574256 | .9369828 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | |
|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| dnsp |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | .4723313 | .4484044 | .4077526 | .4321924 | .6863946 | .6456906 | .5737976 | .5997489 | .6332888 | .683549 | .6641448 | .7491696 | .5830387 |
| 2 | .5576267 | .6867734 | .62783 | .5464482 | .6070735 | .67676 | .7700359 | .8023993 | .8632774 | .8866446 | .9213119 | .8976462 | .7369856 |
| 3 | .823537 | .8402013 | .8147964 | .8374809 | .8414997 | .8607455 | .9077487 | .8752994 | .8919463 | .9225314 | .9147013 | .8957106 | .8688499 |
| 4 | .7213274 | .8061205 | .7208854 | .7273062 | .706647 | .7836927 | .8228467 | .8132958 | .8783513 | .8674517 | .8721606 | .8699791 | .799172 |
| 5 | .7434553 | .7070238 | .751583 | .7207202 | .7865077 | .802798 | .7967058 | .8298981 | .8501455 | .840502 | .8317524 | .7939161 | .7879173 |
| 6 | .5842335 | .695329 | .6891164 | .6375534 | .6591094 | .725518 | .7320096 | .7205153 | .6904849 | .8245412 | .8199442 | .7492244 | .7106316 |
| 7 | .5397433 | .5995498 | .6572081 | .7330648 | .8470519 | .8631045 | .8468581 | .7866742 | .8079878 | .8228272 | .8520073 | .8116378 | .7639762 |
| 8 | .6868553 | .7056321 | .7358992 | .7353379 | .7056749 | .6856732 | .7372506 | .7407549 | .8225082 | .8777883 | .8928883 | .8653008 | .7659636 |
| 9 | .9194825 | .9050238 | .9218892 | .9095348 | .9379903 | .9263405 | .923199 | .9278692 | .9361715 | .9351335 | .9308259 | .9057039 | .9232637 |
| 10 | .8928092 | .8748711 | .8768675 | .8619442 | .9175026 | .8780689 | .8872281 | .8800061 | .9147494 | .9100267 | .8911891 | .8284459 | .8844757 |
| 11 | .8435225 | .8154595 | .801368 | .7639624 | .7206734 | .8049855 | .8527233 | .8486949 | .8384919 | .8303354 | .8442447 | .8679259 | .8193656 |
| 12 | .810144 | .9186097 | .9143654 | .9508705 | .9385698 | .8517216 | .8675405 | .9015785 | .881409 | .8635138 | .8694523 | .8994693 | .888937 |
| 13 | .88531 | .9203955 | .9146345 | .9270596 | .8867526 | .9029389 | .9490819 | .9495116 | .9437338 | .9444095 | .9402855 | .9392529 | .9252805 |
| Total | .7292598 | .763338 | .7564766 | .752575 | .7878036 | .8006183 | .8205405 | .8212497 | .8425035 | .8622503 | .8649929 | .8517987 | .8044506 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | | |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| Country code |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.Aust |  | .7292598 | .763338 | .7564766 | .752575 | .7878036 | .8006183 | .8205405 | .8212497 | .8425035 | .8622503 | .8649929 | .8517987 | .8044506 |
| 2.NZ |  | .7873713 | .7977158 | .7683251 | .7702125 | .7403936 | .7223386 | .6994434 | .6807522 | .64701 | .6578795 | .6378452 | .6150236 | .7103592 |
| 3.Ontario | .9795809 | .9785403 | .9769139 | .9767744 | .9770519 | .9760928 | .9764097 | .9765625 | .9776667 | .9796941 | .9801188 | .9790745 |  | .9778734 |
| Total | .9795809 | .8658705 | .8755819 | .8648989 | .8647872 | .8625511 | .859809 | .8569961 | .8518504 | .8468338 | .8546297 | .8484775 | .7112135 | .8575903 |



SFATLG BC95-JTT-HN-hY Elasticities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | elY |
| Country code |  |  |  |  |
| 1.Aust | 0.131 | 0.196 | 0.646 | 0.973 |
| 2.NZ | 0.670 | 0.152 | 0.099 | 0.921 |
| 3.Ontario | 0.374 | 0.115 | 0.480 | 0.970 |
| Total | 0.414 | 0.144 | 0.397 | 0.955 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ely1 | ely2 | ely3 | elY |
| dnsp |  |  |  |  |
| 1 | 0.309 | 0.146 | 0.500 | 0.956 |
| 2 | -0.079 | 0.198 | 0.866 | 0.985 |
| 3 | 0.157 | 0.137 | 0.671 | 0.965 |
| 4 | -0.061 | 0.201 | 0.867 | 1.007 |
| 5 | -0.029 | 0.207 | 0.806 | 0.984 |
| 6 | -0.064 | 0.254 | 0.858 | 1.048 |
| 7 | 0.093 | 0.255 | 0.652 | 1.000 |
| 8 | 0.419 | 0.141 | 0.338 | 0.898 |
| 9 | 0.158 | 0.222 | 0.589 | 0.969 |
| 10 | 0.051 | 0.229 | 0.717 | 0.998 |
| 11 | 0.295 | 0.202 | 0.431 | 0.928 |
| 12 | 0.208 | 0.193 | 0.587 | 0.989 |
| 13 | 0.246 | 0.161 | 0.516 | 0.923 |
| Total | 0.131 | 0.196 | 0.646 | 0.973 |

SFATLG BC95-JTT-HN-hY Monotonicity Violations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | mon1 | mon2 | mon3 | montot |
| Country code |  |  |  |  |
| 1.Aust | 0.308 | 0.000 | 0.000 | 0.308 |
| 2.NZ | 0.000 | 0.000 | 0.316 | 0.316 |
| 3.Ontario | 0.103 | 0.000 | 0.000 | 0.103 |
| Total | 0.115 | 0.000 | 0.098 | 0.213 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 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 | 0.000 | 0.000 | 0.000 | 0.000 |
| 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 | 0.308 | 0.000 | 0.000 | 0.308 |

SFATLG BC95-JTT-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 | .591651 | .4790644 | .7222621 |
| 2 | .7001597 | .5728442 | .8301292 |
| 3 | .8676384 | .7223093 | .9857473 |
| 4 | .8010368 | .6551353 | .944521 |
| 5 | .7476629 | .605887 | .9068614 |
| 6 | .7692306 | .6261026 | .9214301 |
| 7 | .7773443 | .6361437 | .9137705 |
| 8 | .7401355 | .6028572 | .8858662 |
| 9 | .9241192 | .796371 | .9967715 |
| 10 | .8975479 | .7571823 | .9933253 |
| 11 | .7756411 | .6298562 | .933506 |
| 12 | .8909063 | .7534564 | .9906354 |
| 13 | .9040213 | .7706059 | .9932925 |
| Total | .7990073 | .6621397 | .9244707 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | 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 | .7990073 | .6621397 | .9244707 |
| 2.NZ | .7535679 | .62017 | .8845135 |
| 3.Ontario | .9889464 | .9516804 | 1.000069 |
| Total | .8751529 | .6571615 | .912592 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | |
|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| dnsp |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | .480846 | .4573485 | .4178312 | .4426955 | .6916467 | .6512976 | .5826764 | .607221 | .6398837 | .6894835 | .6711825 | .7676996 | .591651 |
| 2 | .5235781 | .6437851 | .5867832 | .5091316 | .5634827 | .6263357 | .7155815 | .7492599 | .8274441 | .8620006 | .9158674 | .8786665 | .7001597 |
| 3 | .818507 | .8353437 | .8077345 | .8319343 | .8336458 | .8565986 | .9111606 | .8755969 | .894839 | .9276423 | .9194241 | .8992333 | .8676384 |
| 4 | .7282314 | .815133 | .7192315 | .7226949 | .6997297 | .7890614 | .8279712 | .8131145 | .8852093 | .8697532 | .8735909 | .8687211 | .8010368 |
| 5 | .7103076 | .671903 | .7143919 | .6805068 | .7459312 | .7609072 | .7505996 | .7881826 | .8144657 | .7994021 | .792638 | .7427187 | .7476629 |
| 6 | .6464811 | .7631876 | .75318 | .6968898 | .7168468 | .7865947 | .7903154 | .7772671 | .7447881 | .8795201 | .8738435 | .8018529 | .7692306 |
| 7 | .5373541 | .5968052 | .6681811 | .7449042 | .868128 | .8844571 | .8652893 | .8000949 | .8229622 | .8389763 | .8723955 | .8285839 | .7773443 |
| 8 | .6547505 | .6730058 | .7025198 | .7031022 | .6760481 | .6587771 | .7094203 | .7138364 | .7971229 | .8619321 | .8816304 | .8494803 | .7401355 |
| 9 | .9208271 | .901378 | .924246 | .9078119 | .9429241 | .9280296 | .9237908 | .929576 | .9407927 | .9390559 | .9328191 | .8981789 | .9241192 |
| 10 | .9098169 | .8905587 | .8927335 | .8764548 | .9351608 | .891764 | .9001939 | .8906608 | .9286478 | .923524 | .9024512 | .8286077 | .8975479 |
| 11 | .8014132 | .7668343 | .7521158 | .7115601 | .670311 | .7562084 | .8157795 | .8099054 | .7965688 | .7864982 | .8042217 | .8362768 | .7756411 |
| 12 | .8030819 | .9236952 | .9195167 | .9573835 | .9451081 | .8497981 | .8682147 | .906064 | .8834438 | .8628408 | .86894 | .9027885 | .8909063 |
| 13 | .8368977 | .8947799 | .8855416 | .9067912 | .8398814 | .8679782 | .9434833 | .9438818 | .935008 | .9361457 | .9297122 | .9281546 | .9040213 |
| Total | .7209302 | .7564429 | .749539 | .7455278 | .7791419 | .7929083 | .815729 | .8157432 | .8393212 | .8597519 | .8645167 | .8485356 | .7990073 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Reporting year | | | | | | | | | | | | | |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
| Country code |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.Aust |  | .7209302 | .7564429 | .749539 | .7455278 | .7791419 | .7929083 | .815729 | .8157432 | .8393212 | .8597519 | .8645167 | .8485356 | .7990073 |
| 2.NZ |  | .8194535 | .8355386 | .807903 | .810311 | .7824417 | .767135 | .7467779 | .7289901 | .6957337 | .7054397 | .6829116 | .6601787 | .7535679 |
| 3.Ontario | .9893097 | .9890565 | .9886692 | .988608 | .9887117 | .9885138 | .9885998 | .9886552 | .9889084 | .9894537 | .9895671 | .989303 |  | .9889464 |
| Total | .9893097 | .8790877 | .891482 | .8813737 | .8813182 | .8797072 | .8779142 | .8764632 | .8710462 | .8659717 | .8734029 | .8672758 | .7366987 | .8751529 |

