**CONDITIONAL TERM STRUCTURE OF INFLATION FORECAST UNCERTAINTY: THE COPULA APPROACH**

**APPENDIX: ADDITIONAL RESULTS**

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1. **HEADLINE INFLATION**

**A1. VAR-BEKK GARCH estimation results**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| nobs | AR oder | max root | llik | Autocorrelation | p-val |
| 80 | 3 | 0.742507 | 361.254 | 52.85311 | 0.003054 |
| 81 | 3 | 0.746475 | 365.9889 | 55.41094 | 0.001517 |
| 82 | 3 | 0.756025 | 405.7308 | 56.66753 | 0.001066 |
| 83 | 3 | 0.771161 | 413.5725 | 58.61795 | 0.00061 |
| 84 | 3 | 0.768402 | 406.2957 | 57.79239 | 0.000773 |
| 85 | 4 | 0.946632 | 162.7525 | 32.06403 | 0.125413 |
| 86 | 4 | 0.909706 | 163.1009 | 30.22534 | 0.177395 |
| 87 | 4 | 0.875884 | 164.834 | 30.8882 | 0.157032 |
| 88 | 4 | 0.782493 | 171.9886 | 33.57454 | 0.092519 |
| 89 | 4 | 0.778973 | 170.8022 | 33.37464 | 0.096412 |
| 90 | 4 | 0.775014 | 170.6771 | 34.54737 | 0.0754 |
| 91 | 5 | 0.789764 | 169.1503 | 28.80495 | 0.091672 |
| 92 | 5 | 0.78641 | 168.1682 | 29.41801 | 0.079849 |
| 93 | 4 | 0.775267 | 168.3667 | 39.59923 | 0.023604 |
| 94 | 3 | 0.641753 | 167.1927 | 46.01396 | 0.01737 |
| 95 | 5 | 0.781432 | 170.2704 | 35.24369 | 0.018844 |
| 96 | 3 | 0.645666 | 167.5592 | 44.35602 | 0.02561 |
| 97 | 5 | 0.793334 | 173.271 | 33.27602 | 0.03146 |
| 98 | 3 | 0.661993 | 170.5966 | 43.80269 | 0.02906 |
| 99 | 3 | 0.626067 | 172.4248 | 41.56884 | 0.047584 |
| 100 | 3 | 0.625545 | 173.2212 | 42.35008 | 0.040174 |
| 101 | 3 | 0.627406 | 172.8509 | 43.23045 | 0.03306 |
| 102 | 3 | 0.626124 | 172.2344 | 42.97123 | 0.035029 |
| 103 | 4 | 0.790161 | 171.5924 | 38.01706 | 0.034533 |
| 104 | 3 | 0.625683 | 170.2067 | 43.71918 | 0.029616 |
| 105 | 3 | 0.623284 | 169.1289 | 44.29113 | 0.025995 |
| 106 | 4 | 0.789473 | 168.4963 | 38.85799 | 0.028261 |
| 107 | 3 | 0.623148 | 167.0979 | 44.08745 | 0.027236 |
| 108 | 3 | 0.623757 | 166.6537 | 43.76084 | 0.029337 |
| 109 | 3 | 0.619987 | 168.5493 | 44.2799 | 0.026062 |
| 110 | 4 | 0.783271 | 176.234 | 37.8947 | 0.035543 |
| 111 | 3 | 0.738621 | 715.9618 | 52.31745 | 0.003525 |
| 112 | 3 | 0.724084 | 722.9417 | 51.49029 | 0.004389 |
| 113 | 3 | 0.734614 | 722.0625 | 51.80227 | 0.004042 |
| 114 | 4 | 0.777692 | 175.3737 | 35.94876 | 0.055519 |
| 115 | 4 | 0.782594 | 174.3485 | 37.27351 | 0.041086 |
| 116 | 3 | 0.732624 | 723.6309 | 53.06775 | 0.002883 |
| 117 | 3 | 0.733286 | 720.4274 | 53.7064 | 0.002425 |
| 118 | 3 | 0.637424 | 173.5123 | 42.00193 | 0.043341 |
| 119 | 3 | 0.632005 | 173.4867 | 40.37195 | 0.061246 |
| 120 | 4 | 0.779524 | 174.6781 | 36.27242 | 0.051635 |
| 121 | 3 | 0.638263 | 174.8941 | 40.92921 | 0.054513 |
| 122 | 3 | 0.685247 | 185.6331 | 39.20209 | 0.077727 |
| 123 | 3 | 0.696988 | 185.039 | 39.55451 | 0.072407 |
| 124 | 3 | 0.738555 | 186.7364 | 40.25103 | 0.062798 |
| 125 | 3 | 0.730731 | 185.5822 | 40.93639 | 0.054431 |
| 126 | 3 | 0.714112 | 185.6036 | 40.51939 | 0.059399 |
| 127 | 5 | 0.785629 | 185.8339 | 31.4181 | 0.049907 |
| 128 | 5 | 0.785627 | 185.147 | 33.09828 | 0.032912 |
| 129 | 5 | 0.785756 | 183.7807 | 33.60123 | 0.028952 |
| 130 | 3 | 0.698257 | 183.8354 | 44.92019 | 0.022476 |
| 131 | 3 | 0.714363 | 184.8851 | 41.63807 | 0.046882 |
| 132 | 3 | 0.70291 | 184.2525 | 42.71061 | 0.037112 |
| 133 | 3 | 0.696451 | 183.4719 | 43.61541 | 0.030319 |
| 134 | 5 | 0.78253 | 182.6887 | 33.76228 | 0.027778 |
| 135 | 5 | 0.781061 | 182.3263 | 33.5385 | 0.029421 |
| 136 | 5 | 0.781054 | 180.8897 | 33.83308 | 0.027276 |
| 137 | 5 | 0.783583 | 179.2698 | 34.25703 | 0.024438 |
| 138 | 5 | 0.780038 | 178.4245 | 34.58139 | 0.022451 |
| 139 | 5 | 0.784484 | 179.2165 | 34.34445 | 0.023887 |
| 140 | 5 | 0.783532 | 178.3539 | 33.93135 | 0.026593 |
| 141 | 5 | 0.78444 | 177.0768 | 33.48545 | 0.029824 |
| 142 | 5 | 0.785709 | 176.2755 | 33.87417 | 0.026989 |
| 143 | 5 | 0.784777 | 177.7226 | 33.31011 | 0.031188 |
| 144 | 5 | 0.790496 | 173.7983 | 33.2822 | 0.031411 |
| 145 | 5 | 0.795474 | 174.4364 | 33.72545 | 0.028043 |
| 146 | 5 | 0.788406 | 175.1479 | 34.45268 | 0.023221 |
| 147 | 5 | 0.794585 | 174.9021 | 34.75096 | 0.021471 |
| 148 | 5 | 0.797032 | 173.4835 | 35.15927 | 0.019272 |
| 149 | 5 | 0.799249 | 173.9179 | 35.31209 | 0.018504 |
| 150 | 5 | 0.786308 | 176.3352 | 34.43751 | 0.023313 |
| 151 | 5 | 0.789112 | 174.3552 | 34.86328 | 0.020845 |
| 152 | 5 | 0.787006 | 173.4215 | 34.60997 | 0.022283 |
| 153 | 5 | 0.787713 | 171.8391 | 34.08965 | 0.025525 |
| 154 | 5 | 0.788984 | 170.1572 | 34.30139 | 0.024157 |
| 155 | 5 | 0.797088 | 169.7927 | 35.77654 | 0.016338 |
| 156 | 5 | 0.796074 | 169.4513 | 35.9803 | 0.015463 |
| 157 | 5 | 0.783392 | 173.4614 | 36.90673 | 0.012007 |
| 158 | 5 | 0.783925 | 171.9719 | 37.18527 | 0.011118 |
| 159 | 5 | 0.780224 | 170.6524 | 37.56835 | 0.009994 |
| 160 | 5 | 0.782226 | 168.7635 | 37.66232 | 0.009735 |
| 161 | 5 | 0.783027 | 167.182 | 37.38443 | 0.01052 |
| 162 | 5 | 0.785819 | 165.2243 | 37.55486 | 0.010032 |
| 163 | 5 | 0.786134 | 163.1887 | 37.53486 | 0.010088 |
| 164 | 5 | 0.78815 | 160.6018 | 37.09525 | 0.011398 |
| 165 | 5 | 0.78784 | 158.7541 | 37.10889 | 0.011355 |
| 166 | 5 | 0.785957 | 160.0162 | 36.33136 | 0.014058 |
| 167 | 5 | 0.787345 | 158.3412 | 36.39584 | 0.013813 |
| 168 | 5 | 0.781805 | 160.5311 | 36.45745 | 0.013582 |
| 169 | 5 | 0.783325 | 160.2271 | 36.57488 | 0.013153 |
| 170 | 5 | 0.782403 | 159.5964 | 36.83372 | 0.012251 |
| 171 | 5 | 0.773275 | 160.7517 | 37.24331 | 0.01094 |
| 172 | 5 | 0.78593 | 166.7227 | 34.27156 | 0.024345 |
| 173 | 5 | 0.776968 | 166.469 | 32.50647 | 0.038192 |
| 174 | 5 | 0.772426 | 167.7859 | 33.3177 | 0.031128 |
| 175 | 5 | 0.76894 | 166.9607 | 33.9279 | 0.026617 |
| 176 | 5 | 0.766258 | 165.7837 | 34.11724 | 0.025342 |
| 177 | 5 | 0.768521 | 165.3778 | 32.5868 | 0.037433 |
| 178 | 5 | 0.764528 | 168.3367 | 32.33114 | 0.039895 |
| 179 | 5 | 0.764552 | 165.8277 | 31.86775 | 0.044728 |
| 180 | 5 | 0.76043 | 163.154 | 30.96331 | 0.055677 |
| 181 | 5 | 0.757983 | 163.3711 | 30.72203 | 0.058969 |
| 182 | 5 | 0.75897 | 169.5026 | 33.84107 | 0.02722 |
| 183 | 5 | 0.762726 | 169.5595 | 34.10238 | 0.02544 |
| 184 | 5 | 0.76343 | 178.7319 | 26.77848 | 0.141612 |
| 185 | 5 | 0.765778 | 181.8169 | 27.2157 | 0.129304 |
| 186 | 5 | 0.757115 | 184.5459 | 28.84703 | 0.090815 |
| 187 | 5 | 0.757083 | 183.4645 | 29.27062 | 0.082566 |
| 188 | 5 | 0.742462 | 184.7603 | 29.20523 | 0.083796 |
| 189 | 5 | 0.741158 | 183.4761 | 29.39119 | 0.080338 |
| 190 | 5 | 0.740158 | 180.0941 | 29.642 | 0.075866 |
| 191 | 5 | 0.742104 | 181.2439 | 28.07452 | 0.107647 |
| 192 | 5 | 0.742631 | 181.1177 | 28.23198 | 0.104021 |
| 193 | 5 | 0.74122 | 183.0729 | 28.73299 | 0.093152 |
| 194 | 5 | 0.741223 | 183.1061 | 30.1432 | 0.067566 |
| 195 | 5 | 0.74677 | 186.7534 | 29.95864 | 0.070527 |
| 196 | 5 | 0.718324 | 197.2467 | 29.69099 | 0.075018 |
| 197 | 5 | 0.719607 | 198.3273 | 30.3348 | 0.064607 |
| 198 | 5 | 0.707304 | 199.9522 | 31.205 | 0.052542 |
| 199 | 5 | 0.71631 | 202.1503 | 32.03931 | 0.042881 |
| 200 | 5 | 0.713479 | 201.2296 | 32.34892 | 0.039719 |
| 201 | 5 | 0.718537 | 200.7822 | 31.54437 | 0.048402 |
| 202 | 5 | 0.709542 | 205.6253 | 32.55169 | 0.037763 |
| 203 | 5 | 0.711684 | 209.2463 | 32.20288 | 0.041184 |
| 204 | 5 | 0.696263 | 215.2284 | 29.02446 | 0.087279 |
| 205 | 5 | 0.687647 | 226.785 | 31.32836 | 0.051002 |
| 206 | 5 | 0.693961 | 227.5861 | 32.31759 | 0.04003 |
| 207 | 5 | 0.710389 | 228.986 | 31.03199 | 0.054769 |
| 208 | 5 | 0.710845 | 227.9916 | 31.27044 | 0.05172 |
| 209 | 5 | 0.736703 | 233.1156 | 34.4027 | 0.023526 |
| 210 | 5 | 0.734667 | 232.5664 | 34.55728 | 0.022593 |
| 211 | 5 | 0.735989 | 239.1525 | 34.2973 | 0.024183 |
| 212 | 5 | 0.738079 | 240.453 | 33.92395 | 0.026644 |
| 213 | 5 | 0.733776 | 238.3895 | 32.95886 | 0.034093 |
| 214 | 5 | 0.735428 | 245.8532 | 28.80778 | 0.091614 |
| 215 | 5 | 0.732158 | 252.4714 | 30.54374 | 0.061509 |
| 216 | 5 | 0.71097 | 262.4027 | 29.02062 | 0.087354 |
| 217 | 5 | 0.708714 | 263.9446 | 29.28504 | 0.082297 |
| 218 | 5 | 0.702875 | 263.9962 | 29.01375 | 0.087489 |
| 219 | 5 | 0.698253 | 266.1425 | 29.40381 | 0.080107 |
| 220 | 5 | 0.722414 | 278.548 | 32.724 | 0.036169 |
| 221 | 5 | 0.721767 | 280.3578 | 33.23604 | 0.031782 |
| 222 | 5 | 0.723596 | 280.4087 | 33.99242 | 0.026176 |
| 223 | 5 | 0.725371 | 280.1036 | 35.81493 | 0.01617 |
| 224 | 5 | 0.724658 | 278.536 | 36.00158 | 0.015375 |
| 225 | 5 | 0.723871 | 277.5472 | 36.1792 | 0.014652 |
| 226 | 5 | 0.719106 | 280.509 | 35.11029 | 0.019525 |
| 227 | 5 | 0.717304 | 279.9669 | 35.5415 | 0.017403 |
| 228 | 5 | 0.719099 | 279.1776 | 36.18035 | 0.014647 |
| 229 | 5 | 0.718072 | 283.5517 | 36.06055 | 0.015131 |
| 230 | 5 | 0.717508 | 283.9286 | 37.16059 | 0.011194 |
| 231 | 5 | 0.717104 | 282.9118 | 37.28118 | 0.010826 |
| 232 | 5 | 0.701594 | 292.721 | 36.16886 | 0.014693 |
| 233 | 5 | 0.716554 | 294.0303 | 35.65552 | 0.016878 |
| 234 | 5 | 0.715916 | 294.0617 | 35.95538 | 0.015568 |
| 235 | 5 | 0.710886 | 294.093 | 36.13347 | 0.014835 |
| 236 | 5 | 0.711771 | 295.62 | 36.78404 | 0.012419 |
| 237 | 5 | 0.709642 | 295.0703 | 36.99681 | 0.011712 |
| 238 | 4 | 0.660389 | 300.1808 | 43.17178 | 0.009507 |
| 239 | 4 | 0.660316 | 299.9136 | 43.71891 | 0.008224 |
| 240 | 4 | 0.655162 | 300.4014 | 43.30262 | 0.009185 |
| 241 | 4 | 0.653415 | 299.2326 | 43.93735 | 0.007759 |
| 242 | 4 | 0.652398 | 298.1138 | 43.71304 | 0.008237 |
| 243 | 4 | 0.652801 | 295.3905 | 43.92213 | 0.00779 |
| 244 | 4 | 0.655037 | 296.0288 | 44.17903 | 0.007272 |
| 245 | 4 | 0.653515 | 307.8632 | 38.39602 | 0.031567 |
| 246 | 4 | 0.647901 | 306.1923 | 38.07819 | 0.034039 |
| 247 | 4 | 0.651074 | 312.599 | 36.28104 | 0.051534 |
| 248 | 4 | 0.650205 | 311.3927 | 35.95167 | 0.055483 |
| 249 | 4 | 0.676641 | 320.1643 | 34.02406 | 0.084242 |
| 250 | 4 | 0.660835 | 324.4323 | 34.47506 | 0.076573 |
| 251 | 4 | 0.656271 | 326.4557 | 35.73282 | 0.058249 |
| 252 | 4 | 0.656968 | 325.8462 | 35.91104 | 0.055988 |
| 253 | 4 | 0.66144 | 324.2147 | 34.6274 | 0.07412 |
| 254 | 4 | 0.645328 | 330.715 | 30.88634 | 0.157087 |
| 255 | 4 | 0.644324 | 331.1114 | 29.63614 | 0.197105 |
| 256 | 4 | 0.641213 | 329.621 | 30.0787 | 0.182157 |
| 257 | 4 | 0.646538 | 332.4507 | 29.28872 | 0.209454 |
| 258 | 4 | 0.649087 | 334.457 | 28.28609 | 0.248158 |
| 259 | 4 | 0.644907 | 333.0799 | 27.85127 | 0.266363 |
| 260 | 4 | 0.641534 | 332.9691 | 27.94474 | 0.262378 |
| 261 | 4 | 0.661018 | 367.7342 | 27.47298 | 0.282894 |
| 262 | 4 | 0.684314 | 371.8183 | 27.50717 | 0.281373 |
| 263 | 4 | 0.674895 | 371.7463 | 27.82301 | 0.267576 |
| 264 | 4 | 0.667478 | 371.525 | 27.28185 | 0.291488 |
| 265 | 4 | 0.651545 | 376.309 | 27.3091 | 0.290253 |
| 266 | 4 | 0.636296 | 385.3541 | 26.80054 | 0.313836 |
| 267 | 4 | 0.633648 | 384.2599 | 26.87803 | 0.31017 |
| 268 | 4 | 0.63374 | 383.2525 | 27.32143 | 0.289695 |
| 269 | 4 | 0.635936 | 383.3004 | 26.76827 | 0.31537 |
| 270 | 4 | 0.634707 | 381.8561 | 27.04433 | 0.302391 |
| 271 | 4 | 0.637481 | 381.5932 | 28.61155 | 0.235093 |
| 272 | 4 | 0.647756 | 384.1687 | 27.95542 | 0.261925 |
| 273 | 4 | 0.64074 | 391.8085 | 27.80958 | 0.268153 |
| 274 | 4 | 0.627056 | 395.8099 | 28.90258 | 0.223819 |
| 275 | 4 | 0.657802 | 399.9148 | 26.82568 | 0.312644 |
| 276 | 4 | 0.644151 | 402.8139 | 26.1073 | 0.347743 |
| 277 | 4 | 0.637607 | 405.6781 | 26.84012 | 0.311961 |
| 278 | 4 | 0.629473 | 407.6383 | 26.58763 | 0.324038 |
| 279 | 3 | 0.515063 | 407.274 | 33.21647 | 0.227865 |
| 280 | 3 | 0.51876 | 407.6704 | 33.30298 | 0.224767 |
| 281 | 3 | 0.521539 | 408.5185 | 32.88772 | 0.239904 |
| 282 | 4 | 0.622127 | 418.6593 | 30.76644 | 0.160632 |
| 283 | 4 | 0.611796 | 419.8454 | 30.79379 | 0.159818 |
| 284 | 5 | 0.6512 | 423.9249 | 26.11982 | 0.161891 |
| 285 | 4 | 0.605328 | 418.6009 | 31.02393 | 0.153094 |
| 286 | 5 | 0.675968 | 438.696 | 23.042 | 0.286737 |
| 287 | 4 | 0.59856 | 445.6106 | 39.14716 | 0.026354 |
| 288 | 2 | 0.496075 | 467.4051 | 50.9332 | 0.018086 |
| 289 | 4 | 0.60468 | 450.2748 | 39.74458 | 0.022777 |
| 290 | 4 | 0.600151 | 453.7965 | 39.4588 | 0.024429 |
| 291 | 2 | 0.477321 | 472.7259 | 46.87062 | 0.043553 |
| 292 | 3 | 0.491432 | 471.7626 | 38.68343 | 0.086151 |
| 293 | 3 | 0.480355 | 474.0376 | 39.46706 | 0.073698 |
| 294 | 3 | 0.478712 | 473.9382 | 40.08009 | 0.065049 |
| 295 | 3 | 0.480671 | 478.3879 | 41.05582 | 0.053076 |
| 296 | 2 | 0.459556 | 487.788 | 49.77035 | 0.023455 |
| 297 | 2 | 0.455182 | 488.0039 | 49.42425 | 0.02531 |
| 298 | 3 | 0.415084 | 499.7811 | 33.64256 | 0.21289 |
| 299 | 2 | 0.451347 | 496.6085 | 43.38227 | 0.086363 |
| 300 | 2 | 0.453285 | 497.4822 | 43.25718 | 0.088395 |
| 301 | 2 | 0.44316 | 500.7464 | 47.25764 | 0.040201 |
| 302 | 2 | 0.450628 | 500.7501 | 47.61287 | 0.037326 |
| 303 | 2 | 0.445724 | 503.0437 | 45.93864 | 0.052644 |
| 304 | 2 | 0.446555 | 504.7035 | 45.8772 | 0.053297 |
| 305 | 2 | 0.447195 | 505.1943 | 46.22136 | 0.049727 |
| 306 | 3 | 0.557687 | 505.9024 | 38.52 | 0.088958 |
| 307 | 3 | 0.548325 | 512.5949 | 36.6624 | 0.126494 |
| 308 | 3 | 0.548867 | 513.5459 | 36.43053 | 0.131959 |
| 309 | 3 | 0.539595 | 513.9862 | 36.35604 | 0.133754 |
| 310 | 3 | 0.538377 | 514.6648 | 35.8505 | 0.146444 |
| 311 | 3 | 0.539091 | 514.7989 | 36.32492 | 0.134509 |
| 312 | 3 | 0.536964 | 515.6598 | 34.90116 | 0.172763 |
| 313 | 3 | 0.537088 | 515.6261 | 35.55996 | 0.154149 |
| 314 | 3 | 0.536911 | 520.8857 | 34.5049 | 0.184741 |
| 315 | 3 | 0.545452 | 525.8478 | 32.99081 | 0.236083 |
| 316 | 3 | 0.550249 | 526.9579 | 33.62071 | 0.213641 |
| 317 | 3 | 0.531868 | 526.3328 | 32.95113 | 0.237549 |
| 318 | 3 | 0.533542 | 530.8602 | 33.22409 | 0.227591 |
| 319 | 3 | 0.533036 | 531.2628 | 34.31293 | 0.19076 |
| 320 | 3 | 0.536596 | 531.7987 | 33.44589 | 0.219714 |
| 321 | 3 | 0.537908 | 530.9192 | 33.43695 | 0.220028 |
| 322 | 3 | 0.534068 | 530.898 | 33.15815 | 0.22997 |
| 323 | 3 | 0.534512 | 530.1851 | 33.25089 | 0.226629 |
| 324 | 3 | 0.526483 | 532.9967 | 32.41306 | 0.258029 |
| 325 | 3 | 0.524235 | 533.2465 | 33.0198 | 0.235016 |
| 326 | 3 | 0.52999 | 533.1145 | 33.22647 | 0.227505 |
| 327 | 3 | 0.528424 | 534.2771 | 32.61675 | 0.250143 |
| 328 | 3 | 0.52901 | 534.5187 | 33.2975 | 0.224963 |
| 329 | 3 | 0.524849 | 538.574 | 34.37795 | 0.188705 |
| 330 | 3 | 0.527316 | 539.9768 | 34.65777 | 0.18005 |
| 331 | 3 | 0.524209 | 540.8641 | 34.71958 | 0.178178 |
| 332 | 3 | 0.521889 | 541.9238 | 35.49102 | 0.156022 |
| 333 | 3 | 0.519624 | 542.4292 | 34.90094 | 0.172769 |
| 334 | 3 | 0.517749 | 541.6093 | 35.14249 | 0.165757 |
| 335 | 3 | 0.517517 | 543.2139 | 35.93396 | 0.144287 |
| 336 | 3 | 0.520601 | 543.3698 | 36.11735 | 0.139634 |
| 337 | 3 | 0.516538 | 543.3801 | 36.3896 | 0.132943 |
| 338 | 3 | 0.51951 | 546.992 | 36.74451 | 0.124603 |
| 339 | 3 | 0.501923 | 549.8374 | 34.29107 | 0.191454 |
| 340 | 3 | 0.510099 | 550.6867 | 35.51737 | 0.155304 |
| 341 | 3 | 0.513772 | 551.6215 | 35.07619 | 0.16766 |
| 342 | 3 | 0.51556 | 551.5879 | 35.14531 | 0.165677 |
| 343 | 3 | 0.515751 | 551.5004 | 35.04361 | 0.168601 |
| 344 | 3 | 0.522173 | 553.1936 | 34.90294 | 0.17271 |
| 345 | 3 | 0.523779 | 553.1989 | 35.11505 | 0.166543 |
| 346 | 3 | 0.519228 | 553.4732 | 35.3866 | 0.158892 |
| 347 | 3 | 0.515486 | 553.5335 | 35.60404 | 0.15296 |
| 348 | 3 | 0.517735 | 552.9786 | 36.33701 | 0.134215 |
| 349 | 3 | 0.518947 | 552.8309 | 36.19825 | 0.137619 |
| 350 | 3 | 0.520801 | 553.8058 | 36.26483 | 0.135977 |
| 351 | 3 | 0.515337 | 556.1613 | 35.00523 | 0.169715 |
| 352 | 3 | 0.520118 | 556.7469 | 35.2879 | 0.161641 |
| 353 | 3 | 0.522141 | 556.1199 | 36.06611 | 0.140922 |
| 354 | 3 | 0.515261 | 555.4678 | 35.16873 | 0.165009 |
| 355 | 3 | 0.515011 | 555.4044 | 35.51388 | 0.155399 |
| 356 | 3 | 0.518615 | 555.0415 | 36.94912 | 0.119987 |
| 357 | 3 | 0.515011 | 554.7174 | 36.35143 | 0.133865 |

**A2. Descriptive statistics of uncertainties**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| h | nobs | Kendall | Spearman | Canada | | | | USA | | | |
| Mean | std | skew | kurtosis | Mean | std | skew | kurtosis |
| 1 | 278 | 0.3940 | 0.5556 | -0.0037 | 0.6891 | -2.7555 | 22.2577 | 0.0397 | 0.9349 | -0.4111 | 1.7112 |
| 2 | 277 | 0.4383 | 0.6084 | -0.0718 | 1.0495 | -2.4226 | 14.3468 | -0.0138 | 0.9405 | -0.3278 | 2.5215 |
| 3 | 276 | 0.5187 | 0.7042 | -0.0468 | 1.1413 | -1.5681 | 7.2035 | 0.0184 | 1.1059 | -0.5286 | 2.9492 |
| 4 | 275 | 0.5244 | 0.7079 | -0.0862 | 1.2590 | -2.7201 | 19.7110 | 0.0237 | 1.2011 | -0.8931 | 3.5897 |
| 5 | 274 | 0.4916 | 0.6692 | -0.0673 | 1.3805 | -3.4370 | 26.6451 | 0.0350 | 1.3717 | -0.9324 | 3.1260 |
| 6 | 273 | 0.4576 | 0.6317 | -0.0552 | 1.2851 | -3.1439 | 24.3243 | 0.0600 | 1.5546 | -0.9405 | 2.9862 |
| 7 | 272 | 0.4171 | 0.5798 | -0.0725 | 1.1519 | -2.6597 | 19.2452 | 0.0970 | 1.7341 | -0.9491 | 2.8534 |
| 8 | 271 | 0.3755 | 0.5206 | -0.0950 | 1.1185 | -2.4864 | 16.9479 | 0.1221 | 1.9806 | -0.9264 | 2.6807 |
| 9 | 270 | 0.3497 | 0.4907 | -0.1031 | 1.1408 | -2.8895 | 21.5961 | 0.1010 | 2.1666 | -0.8599 | 2.7224 |
| 10 | 269 | 0.3463 | 0.4886 | -0.0879 | 1.0985 | -3.0745 | 23.6527 | 0.1153 | 2.2955 | -0.8346 | 2.7950 |
| 11 | 268 | 0.3516 | 0.4961 | -0.0883 | 1.0441 | -2.8638 | 22.5560 | 0.1248 | 2.5307 | -0.6600 | 2.2398 |
| 12 | 267 | 0.3267 | 0.4647 | -0.0984 | 1.0691 | -3.1600 | 25.1038 | 0.0706 | 2.6942 | -0.5599 | 1.7419 |
| 13 | 266 | 0.2575 | 0.3695 | -0.0738 | 0.9887 | -2.6615 | 21.6663 | 0.1767 | 2.7536 | -0.4672 | 1.4385 |
| 14 | 265 | 0.1780 | 0.2586 | -0.0927 | 0.9318 | -2.2908 | 18.3232 | 0.1445 | 2.6609 | -0.3608 | 1.1067 |
| 15 | 264 | 0.1273 | 0.1892 | -0.0760 | 0.8373 | -2.1181 | 16.2559 | 0.2170 | 2.6132 | -0.2065 | 1.0291 |
| 16 | 263 | 0.1070 | 0.1516 | -0.1055 | 0.7960 | -2.0902 | 14.8716 | 0.2097 | 2.5450 | -0.1932 | 0.8559 |
| 17 | 262 | 0.0869 | 0.1223 | -0.0858 | 0.7756 | -1.8191 | 12.9671 | 0.2368 | 2.5497 | -0.0898 | 0.9793 |
| 18 | 261 | 0.0640 | 0.0912 | -0.0896 | 0.8012 | -1.6943 | 12.1472 | 0.2546 | 2.5920 | 0.0341 | 1.1855 |
| 19 | 260 | 0.0513 | 0.0689 | -0.1166 | 0.8636 | -2.1406 | 15.4846 | 0.2904 | 2.6166 | 0.1662 | 1.5913 |
| 20 | 259 | 0.0420 | 0.0613 | -0.1394 | 0.8806 | -2.1252 | 15.6806 | 0.3226 | 2.6451 | 0.2902 | 1.6116 |
| 21 | 258 | 0.0301 | 0.0436 | -0.1468 | 0.8866 | -2.1671 | 15.6738 | 0.3132 | 2.6971 | 0.4926 | 2.2175 |
| 22 | 257 | 0.0195 | 0.0317 | -0.1444 | 0.9171 | -2.3092 | 16.4857 | 0.3236 | 2.7574 | 0.5145 | 2.1586 |
| 23 | 256 | 0.0001 | 0.0029 | -0.1565 | 0.9323 | -2.0762 | 14.7532 | 0.3679 | 2.8431 | 0.6459 | 2.5758 |
| 24 | 255 | -0.0294 | -0.0411 | -0.1654 | 1.0172 | -2.0746 | 14.7541 | 0.3345 | 2.8502 | 0.7755 | 3.0091 |

**A3. Recursive forecast accuracy study (Canada)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| h | TPN | | | WSN | | | Amisano-Giacomini | p-val (A-G) |
| Cramer-von Mises | Berkowitz | p-val (Berkowitz) | Cramer-von Mises | Berkowitz | p-val (Berkowitz) |
| 1 | 2.1570 | 1885.8793 | 0.0000 | 0.2022 | 2.1618 | 0.3393 | -2.9052 | 0.0018 |
| 2 | 2.2915 | 1298.4783 | 0.0000 | 0.5170 | 0.0211 | 0.9895 | -3.1203 | 0.0009 |
| 3 | 2.6710 | 1799.0659 | 0.0000 | 0.3249 | 0.4863 | 0.7842 | -2.6814 | 0.0037 |
| 4 | 2.8838 | 2112.0031 | 0.0000 | 0.7667 | 0.2128 | 0.8991 | -4.2222 | 0.0000 |
| 5 | 2.3015 | 2054.8962 | 0.0000 | 0.4431 | 3.0415 | 0.2186 | -2.8859 | 0.0020 |
| 6 | 2.6841 | 1391.5797 | 0.0000 | 0.5694 | 4.4909 | 0.1059 | -2.9568 | 0.0016 |
| 7 | 2.7247 | 2694.1000 | 0.0000 | 0.7197 | 5.2752 | 0.0715 | -2.6978 | 0.0035 |
| 8 | 2.0496 | 1494.7781 | 0.0000 | 0.9178 | 3.6856 | 0.1584 | -2.7173 | 0.0033 |
| 9 | 2.3780 | 1868.7109 | 0.0000 | 0.8657 | 3.8653 | 0.1448 | -1.9929 | 0.0231 |
| 10 | 2.4388 | 2220.5810 | 0.0000 | 0.9091 | 3.2875 | 0.1933 | -3.2630 | 0.0006 |
| 11 | 1.9673 | 673.4777 | 0.0000 | 1.2951 | 1.9336 | 0.3803 | -2.1992 | 0.0139 |
| 12 | 2.7464 | 1615.7051 | 0.0000 | 1.4690 | 4.2109 | 0.1218 | -2.7376 | 0.0031 |
| 13 | 1.9589 | 2355.8441 | 0.0000 | 1.9615 | 2.6418 | 0.2669 | -2.2522 | 0.0122 |
| 14 | 1.8160 | 829.7862 | 0.0000 | 2.8883 | 3.9036 | 0.1420 | -3.2120 | 0.0007 |
| 15 | 2.0823 | 1840.4287 | 0.0000 | 4.3310 | 0.6288 | 0.7302 | -3.0012 | 0.0013 |
| 16 | 1.6710 | 2790.7626 | 0.0000 | 5.2390 | 0.7321 | 0.6935 | -3.3813 | 0.0004 |
| 17 | 2.1013 | 2148.6908 | 0.0000 | 6.1650 | 4.5106 | 0.1048 | -3.2310 | 0.0006 |
| 18 | 1.8871 | 2326.3303 | 0.0000 | 5.6637 | 5.2857 | 0.0712 | -2.2909 | 0.0110 |
| 19 | 1.9771 | 1744.3337 | 0.0000 | 6.4615 | 2.4620 | 0.2920 | -2.9570 | 0.0016 |
| 20 | 1.4995 | 16.1797 | 0.0003 | 6.4971 | 2.1043 | 0.3492 | -2.8211 | 0.0024 |
| 21 | 1.7958 | 532.8125 | 0.0000 | 6.4456 | 1.9165 | 0.3836 | -2.5803 | 0.0049 |
| 22 | 1.7647 | 684.2525 | 0.0000 | 5.8211 | 1.1973 | 0.5496 | -2.4699 | 0.0068 |
| 23 | 1.8702 | 351.4611 | 0.0000 | 8.2773 | 4.8947 | 0.0865 | -2.7609 | 0.0029 |
| 24 | 2.1132 | 467.3267 | 0.0000 | 8.3913 | 1.0309 | 0.5972 | -2.9400 | 0.0016 |

**A4. Recursive forecast accuracy study (USA)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| h | TPN | | | WSN | | | Amisano-Giacomini | p-val (A-G) |
| Cramer-von Mises | Berkowitz | p-val (Berkowitz) | Cramer-von Mises | Berkowitz | p-val (Berkowitz) |
| 1 | 1.9084 | 15.3702 | 0.0005 | 1.8559 | 8.1524 | 0.0170 | -2.0649 | 0.0195 |
| 2 | 0.8792 | 43.0445 | 0.0000 | 0.8197 | 39.1012 | 0.0000 | -1.4192 | 0.0779 |
| 3 | 0.3407 | 48.0105 | 0.0000 | 0.3441 | 44.8240 | 0.0000 | -0.5105 | 0.3048 |
| 4 | 0.2060 | 37.6285 | 0.0000 | 0.2304 | 37.1232 | 0.0000 | -0.0763 | 0.4696 |
| 5 | 0.1980 | 38.8417 | 0.0000 | 0.2756 | 41.0217 | 0.0000 | 0.0865 | 0.5345 |
| 6 | 0.3867 | 26.9387 | 0.0000 | 0.4818 | 35.8902 | 0.0000 | 0.0549 | 0.5219 |
| 7 | 0.5242 | 15.5198 | 0.0004 | 0.6616 | 21.1596 | 0.0000 | -0.0167 | 0.4933 |
| 8 | 0.8987 | 55301.1030 | 0.0000 | 0.9614 | 20.3476 | 0.0000 | -1.0507 | 0.1467 |
| 9 | 1.0659 | 48655.9120 | 0.0000 | 1.0920 | 24.5638 | 0.0000 | -1.1167 | 0.1321 |
| 10 | 1.4465 | 44100.1030 | 0.0000 | 1.4845 | 20.3299 | 0.0000 | -1.6712 | 0.0473 |
| 11 | 1.8384 | 5193.5936 | 0.0000 | 1.8658 | 14.2580 | 0.0008 | -2.2986 | 0.0108 |
| 12 | 2.1785 | 4985.6971 | 0.0000 | 2.1888 | 11.6715 | 0.0029 | -1.8514 | 0.0321 |
| 13 | 2.2384 | 8012.1877 | 0.0000 | 2.2543 | 10.8205 | 0.0045 | -2.2096 | 0.0136 |
| 14 | 2.1789 | 33288.8960 | 0.0000 | 2.1721 | 7.9791 | 0.0185 | -2.0259 | 0.0214 |
| 15 | 1.8673 | 4.2831 | 0.1175 | 1.8519 | 6.6047 | 0.0368 | -1.9935 | 0.0231 |
| 16 | 1.8920 | 4.3495 | 0.1136 | 1.8024 | 6.6025 | 0.0368 | -2.5562 | 0.0053 |
| 17 | 1.8181 | 34701.6460 | 0.0000 | 1.7495 | 4.1097 | 0.1281 | -2.5950 | 0.0047 |
| 18 | 1.7434 | 1.6804 | 0.4316 | 1.7587 | 2.5485 | 0.2796 | -2.0662 | 0.0194 |
| 19 | 1.3152 | 31954.7210 | 0.0000 | 1.2768 | 1.4781 | 0.4776 | -1.9283 | 0.0269 |
| 20 | 1.3840 | 0.1203 | 0.9416 | 1.3809 | 0.0285 | 0.9859 | -2.0560 | 0.0199 |
| 21 | 1.3714 | 1.1351 | 0.5669 | 1.3329 | 0.1611 | 0.9226 | -1.6437 | 0.0501 |
| 22 | 1.5149 | 1.1619 | 0.5594 | 1.4572 | 0.6846 | 0.7101 | -2.2414 | 0.0125 |
| 23 | 1.4716 | 2.3700 | 0.3057 | 1.4258 | 2.1236 | 0.3458 | -1.7226 | 0.0425 |
| 24 | 1.6200 | 2.9825 | 0.2251 | 1.4954 | 2.0892 | 0.3518 | -1.9576 | 0.0251 |

1. **CORE INFLATION**

**B1. VAR-BEKK GARCH estimation results**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| nobs | AR oder | max root | llik | Autocorrelation | p-val |
| 80 | 1 | 0.592595 | 11956.06 | 62.32943 | 0.004174 |
| 81 | 1 | 0.597904 | 11899.62 | 61.70283 | 0.004856 |
| 82 | 5 | 0.816098 | 10828.3 | 36.56134 | 0.013202 |
| 83 | 4 | 0.780535 | 11213.16 | 41.65901 | 0.014086 |
| 84 | 4 | 0.772841 | 11348.12 | 41.02272 | 0.016562 |
| 85 | 5 | 0.820042 | 11253.68 | 36.13191 | 0.014841 |
| 86 | 5 | 0.804897 | 11622.54 | 33.75271 | 0.027847 |
| 87 | 1 | 0.563729 | 12978.55 | 56.94813 | 0.014554 |
| 88 | 5 | 0.791692 | 11974.89 | 36.50549 | 0.013405 |
| 89 | 1 | 0.557721 | 13337.81 | 56.8158 | 0.014985 |
| 90 | 1 | 0.55552 | 13509.46 | 51.61584 | 0.044339 |
| 91 | 1 | 0.555899 | 13633.13 | 52.98659 | 0.033726 |
| 92 | 1 | 0.555422 | 13772.14 | 55.27497 | 0.020937 |
| 93 | 1 | 0.555216 | 13926.06 | 55.83481 | 0.018564 |
| 94 | 1 | 0.550281 | 14134.41 | 57.3324 | 0.013365 |
| 95 | 1 | 0.543133 | 14373.96 | 55.53576 | 0.0198 |
| 96 | 1 | 0.544179 | 14550.65 | 54.77247 | 0.023296 |
| 97 | 1 | 0.536721 | 14805.5 | 56.23761 | 0.01701 |
| 98 | 1 | 0.531073 | 14981.99 | 56.54809 | 0.015894 |
| 99 | 1 | 0.530719 | 15176.23 | 56.69462 | 0.015391 |
| 100 | 1 | 0.525318 | 15395.6 | 55.77625 | 0.0188 |
| 101 | 1 | 0.524084 | 15568.36 | 54.23003 | 0.026108 |
| 102 | 1 | 0.523469 | 15738.53 | 53.59119 | 0.029806 |
| 103 | 1 | 0.525219 | 15927.64 | 52.66682 | 0.035979 |
| 104 | 1 | 0.523431 | 16089.82 | 53.5221 | 0.030233 |
| 105 | 1 | 0.523393 | 16244.63 | 53.58773 | 0.029827 |
| 106 | 1 | 0.522989 | 16399.88 | 54.93346 | 0.022516 |
| 107 | 1 | 0.522386 | 16553.8 | 55.29969 | 0.020827 |
| 108 | 1 | 0.521264 | 16718.28 | 55.75075 | 0.018904 |
| 109 | 1 | 0.518612 | 16911.81 | 56.08852 | 0.017571 |
| 110 | 1 | 0.515452 | 17074.03 | 56.24352 | 0.016988 |
| 111 | 1 | 0.515424 | 17216.23 | 56.7679 | 0.015144 |
| 112 | 1 | 0.515618 | 17380.2 | 57.64114 | 0.012474 |
| 113 | 1 | 0.515589 | 17520.87 | 58.63427 | 0.009966 |
| 114 | 1 | 0.514048 | 17692.16 | 58.90757 | 0.009362 |
| 115 | 1 | 0.518091 | 17839.42 | 58.69471 | 0.009829 |
| 116 | 1 | 0.517766 | 17977.24 | 59.30846 | 0.008537 |
| 117 | 1 | 0.518078 | 18120.52 | 59.08646 | 0.008985 |
| 118 | 1 | 0.513854 | 18344.77 | 57.60358 | 0.01258 |
| 119 | 1 | 0.506047 | 18573.12 | 54.39413 | 0.025227 |
| 120 | 1 | 0.505903 | 18707.29 | 54.43488 | 0.025013 |
| 121 | 1 | 0.505838 | 18892.22 | 54.97939 | 0.022297 |
| 122 | 1 | 0.506041 | 19040.28 | 55.36161 | 0.020553 |
| 123 | 1 | 0.50563 | 19167.32 | 55.03097 | 0.022054 |
| 124 | 1 | 0.504853 | 19347.09 | 56.01816 | 0.017841 |
| 125 | 1 | 0.505786 | 19490.83 | 55.74554 | 0.018925 |
| 126 | 1 | 0.502532 | 19666.38 | 55.41656 | 0.020312 |
| 127 | 1 | 0.504932 | 19807.3 | 55.95473 | 0.018088 |
| 128 | 1 | 0.505469 | 19954 | 56.56745 | 0.015827 |
| 129 | 1 | 0.505257 | 20100.25 | 56.42031 | 0.016345 |
| 130 | 4 | 0.740612 | 19601.78 | 40.57419 | 0.01854 |
| 131 | 4 | 0.729927 | 19910.07 | 37.11949 | 0.042573 |
| 132 | 4 | 0.730529 | 20109.06 | 34.17017 | 0.08169 |
| 133 | 4 | 0.730764 | 20294.5 | 34.36065 | 0.07846 |
| 134 | 4 | 0.733246 | 20455.47 | 34.08654 | 0.083143 |
| 135 | 4 | 0.736705 | 20640.11 | 33.90305 | 0.086407 |
| 136 | 4 | 0.736545 | 20793.49 | 34.33593 | 0.078873 |
| 137 | 4 | 0.736394 | 20953.47 | 34.41106 | 0.077624 |
| 138 | 4 | 0.735752 | 21111.61 | 34.79682 | 0.071471 |
| 139 | 4 | 0.730296 | 21345.85 | 33.73589 | 0.089474 |
| 140 | 4 | 0.730909 | 21533.64 | 33.13009 | 0.101358 |
| 141 | 4 | 0.730937 | 21715.8 | 32.71539 | 0.110223 |
| 142 | 4 | 0.729849 | 21880.36 | 32.95937 | 0.104934 |
| 143 | 4 | 0.723374 | 22104.9 | 33.02343 | 0.10358 |
| 144 | 4 | 0.723057 | 22285.84 | 32.04735 | 0.125823 |
| 145 | 4 | 0.726522 | 22479.51 | 32.30655 | 0.119571 |
| 146 | 4 | 0.725708 | 22697.93 | 32.27519 | 0.120314 |
| 147 | 4 | 0.732399 | 22773.76 | 31.8392 | 0.131031 |
| 148 | 4 | 0.733165 | 22881.38 | 31.26043 | 0.146415 |
| 149 | 4 | 0.728822 | 23011.09 | 31.95677 | 0.128068 |
| 150 | 4 | 0.728572 | 23197.41 | 32.37158 | 0.118043 |
| 151 | 4 | 0.724388 | 23398.68 | 31.32772 | 0.144556 |
| 152 | 4 | 0.724423 | 23551.11 | 31.55876 | 0.138317 |
| 153 | 4 | 0.722481 | 23714.22 | 31.23187 | 0.147209 |
| 154 | 4 | 0.72273 | 23856.19 | 31.81176 | 0.13173 |
| 155 | 4 | 0.72224 | 23934.55 | 31.80595 | 0.131878 |
| 156 | 4 | 0.722182 | 24044.14 | 32.36284 | 0.118247 |
| 157 | 4 | 0.721927 | 24235.61 | 32.1608 | 0.123055 |
| 158 | 4 | 0.721461 | 24411.23 | 32.77817 | 0.108841 |
| 159 | 4 | 0.720086 | 24558.45 | 33.19321 | 0.100062 |
| 160 | 4 | 0.721062 | 24754.85 | 32.8788 | 0.106657 |
| 161 | 4 | 0.723737 | 24876.05 | 32.40747 | 0.117206 |
| 162 | 4 | 0.721957 | 25046.78 | 32.75234 | 0.109408 |
| 163 | 4 | 0.722108 | 25202.58 | 32.90663 | 0.106059 |
| 164 | 4 | 0.722462 | 25339.33 | 32.93529 | 0.105446 |
| 165 | 4 | 0.723598 | 25495.81 | 32.90457 | 0.106103 |
| 166 | 4 | 0.723469 | 25657.63 | 32.88492 | 0.106525 |
| 167 | 4 | 0.723285 | 25828.28 | 33.18319 | 0.100267 |
| 168 | 4 | 0.72348 | 25967.37 | 33.26592 | 0.098586 |
| 169 | 4 | 0.72358 | 26152.65 | 34.33016 | 0.07897 |
| 170 | 4 | 0.723546 | 26312.96 | 34.48409 | 0.076426 |
| 171 | 4 | 0.722526 | 26447.62 | 34.69713 | 0.07302 |
| 172 | 4 | 0.719428 | 26673.57 | 32.6702 | 0.111226 |
| 173 | 4 | 0.718482 | 27087.5 | 32.2364 | 0.121238 |
| 174 | 4 | 0.718452 | 27225.55 | 32.16292 | 0.123004 |
| 175 | 4 | 0.714263 | 27429.29 | 32.07887 | 0.125049 |
| 176 | 4 | 0.709109 | 27572.23 | 32.42173 | 0.116875 |
| 177 | 4 | 0.714596 | 27693.96 | 31.18337 | 0.148566 |
| 178 | 4 | 0.711616 | 27883.95 | 30.83865 | 0.15849 |
| 179 | 4 | 0.709077 | 28092.21 | 31.29973 | 0.145327 |
| 180 | 4 | 0.708298 | 28243.44 | 31.71312 | 0.134268 |
| 181 | 4 | 0.706041 | 28426.15 | 31.76167 | 0.133014 |
| 182 | 4 | 0.7085 | 28659.95 | 32.84861 | 0.107308 |
| 183 | 1 | 0.464443 | 29233.8 | 47.34395 | 0.097745 |
| 184 | 1 | 0.424861 | 30036.5 | 44.84722 | 0.148034 |
| 185 | 1 | 0.402555 | 30397.51 | 44.83652 | 0.148286 |
| 186 | 1 | 0.407295 | 30544.24 | 45.34666 | 0.136639 |
| 187 | 1 | 0.395779 | 30788.75 | 45.84474 | 0.125962 |
| 188 | 1 | 0.396699 | 30947.4 | 45.75152 | 0.127909 |
| 189 | 1 | 0.394408 | 31133.77 | 45.92272 | 0.124351 |
| 190 | 1 | 0.394359 | 31291.02 | 46.13406 | 0.120067 |
| 191 | 1 | 0.394361 | 31488.62 | 44.8549 | 0.147854 |
| 192 | 1 | 0.394386 | 31685.21 | 45.00271 | 0.144411 |
| 193 | 1 | 0.392582 | 31908.22 | 47.16663 | 0.100789 |
| 194 | 1 | 0.384472 | 32162.21 | 47.48695 | 0.095345 |
| 195 | 1 | 0.392312 | 32257.99 | 47.92399 | 0.088306 |
| 196 | 4 | 0.656807 | 31976.52 | 36.0487 | 0.054293 |
| 197 | 4 | 0.653218 | 32033.71 | 36.42753 | 0.049859 |
| 198 | 4 | 0.643486 | 32274.53 | 36.55107 | 0.048483 |
| 199 | 4 | 0.621001 | 32352.42 | 36.59539 | 0.047998 |
| 200 | 4 | 0.613506 | 32556.11 | 36.29161 | 0.051412 |
| 201 | 4 | 0.616594 | 32731.56 | 36.2462 | 0.05194 |
| 202 | 4 | 0.610836 | 32892.81 | 36.8857 | 0.044922 |
| 203 | 4 | 0.600864 | 33061.01 | 34.83029 | 0.070957 |
| 204 | 4 | 0.605231 | 33232.55 | 34.43607 | 0.077212 |
| 205 | 4 | 0.596038 | 33326.91 | 32.65277 | 0.111615 |
| 206 | 4 | 0.600365 | 33636.65 | 34.92004 | 0.069595 |
| 207 | 4 | 0.607039 | 33777.45 | 34.79784 | 0.071455 |
| 208 | 4 | 0.608725 | 33905.63 | 34.98973 | 0.068553 |
| 209 | 2 | 0.403457 | 34764.49 | 45.48626 | 0.057619 |
| 210 | 4 | 0.584339 | 34376.98 | 35.84856 | 0.056772 |
| 211 | 4 | 0.579104 | 34546.19 | 34.8537 | 0.0706 |
| 212 | 4 | 0.56773 | 34641.91 | 34.25269 | 0.080277 |
| 213 | 2 | 0.428548 | 35451.76 | 44.00845 | 0.076768 |
| 214 | 4 | 0.582303 | 35369.79 | 34.37311 | 0.078253 |
| 215 | 4 | 0.582184 | 35574 | 33.25036 | 0.0989 |
| 216 | 2 | 0.387274 | 36251.14 | 42.78642 | 0.096396 |
| 217 | 4 | 0.564811 | 35803.67 | 33.41388 | 0.095637 |
| 218 | 3 | 0.498347 | 36165.85 | 40.62468 | 0.058109 |
| 219 | 3 | 0.494652 | 36408.58 | 41.1305 | 0.052244 |
| 220 | 2 | 0.406632 | 36898.66 | 50.51244 | 0.019885 |
| 221 | 3 | 0.480789 | 36764.05 | 46.50714 | 0.015434 |
| 222 | 3 | 0.479353 | 36824.46 | 45.57814 | 0.019263 |
| 223 | 4 | 0.58697 | 36693.23 | 42.28961 | 0.011974 |
| 224 | 4 | 0.624 | 36747.07 | 40.03566 | 0.021199 |
| 225 | 4 | 0.631366 | 36864.95 | 39.7839 | 0.022558 |
| 226 | 4 | 0.624036 | 37152.08 | 39.37637 | 0.024925 |
| 227 | 4 | 0.62424 | 37254.83 | 39.40879 | 0.024729 |
| 228 | 4 | 0.60437 | 37503.46 | 41.98598 | 0.012952 |
| 229 | 4 | 0.597948 | 37620.68 | 40.83232 | 0.017376 |
| 230 | 4 | 0.584301 | 37878.41 | 42.95866 | 0.010056 |
| 231 | 4 | 0.580816 | 38033.31 | 43.12523 | 0.009625 |
| 232 | 4 | 0.612842 | 38221.01 | 43.25808 | 0.009293 |
| 233 | 4 | 0.623755 | 38059.74 | 41.30518 | 0.015417 |
| 234 | 4 | 0.620761 | 38163.29 | 41.20642 | 0.015809 |
| 235 | 4 | 0.614556 | 38354.24 | 41.51231 | 0.014625 |
| 236 | 4 | 0.591293 | 38541.73 | 42.33201 | 0.011843 |
| 237 | 4 | 0.595069 | 38698.55 | 42.22075 | 0.012189 |
| 238 | 3 | 0.475586 | 39385.94 | 49.36313 | 0.00761 |
| 239 | 3 | 0.475357 | 39445.2 | 48.90725 | 0.008541 |
| 240 | 3 | 0.486409 | 39631.31 | 46.02651 | 0.017318 |
| 241 | 3 | 0.483092 | 39738.01 | 45.96246 | 0.017585 |
| 242 | 3 | 0.485717 | 39899.54 | 45.8787 | 0.017939 |
| 243 | 3 | 0.485817 | 40052.77 | 46.35496 | 0.01601 |
| 244 | 3 | 0.477993 | 40226.98 | 45.69196 | 0.018751 |
| 245 | 2 | 0.466879 | 40856.06 | 43.97134 | 0.077311 |
| 246 | 2 | 0.463971 | 40954.11 | 44.34951 | 0.071929 |
| 247 | 2 | 0.486315 | 41158.7 | 41.16872 | 0.128489 |
| 248 | 2 | 0.491192 | 41143.2 | 41.37271 | 0.124028 |
| 249 | 2 | 0.461503 | 41399.77 | 43.5697 | 0.083392 |
| 250 | 2 | 0.466314 | 41877.5 | 42.87339 | 0.094874 |
| 251 | 2 | 0.499126 | 41625.49 | 43.38026 | 0.086396 |
| 252 | 2 | 0.499971 | 41849.62 | 43.41264 | 0.085876 |
| 253 | 2 | 0.514802 | 41889.5 | 42.02734 | 0.110536 |
| 254 | 2 | 0.508628 | 42344.59 | 37.70113 | 0.224667 |
| 255 | 2 | 0.507977 | 42434.37 | 37.72116 | 0.223995 |
| 256 | 2 | 0.510419 | 42602.42 | 38.10736 | 0.211322 |
| 257 | 2 | 0.517536 | 42735.68 | 37.21305 | 0.241448 |
| 258 | 2 | 0.517589 | 42809.91 | 37.75242 | 0.222951 |
| 259 | 2 | 0.519485 | 42886.36 | 39.05898 | 0.182264 |
| 260 | 2 | 0.521617 | 43011.77 | 38.28154 | 0.205773 |
| 261 | 2 | 0.514004 | 43510.98 | 40.19391 | 0.151566 |
| 262 | 2 | 0.516039 | 43252.32 | 40.61408 | 0.141257 |
| 263 | 2 | 0.548249 | 43281.48 | 39.98428 | 0.15692 |
| 264 | 2 | 0.551471 | 43192.43 | 39.86978 | 0.159903 |
| 265 | 2 | 0.560783 | 43419.18 | 36.65672 | 0.261565 |
| 266 | 4 | 0.597043 | 43401.96 | 27.592 | 0.277624 |
| 267 | 4 | 0.596702 | 43474 | 27.7633 | 0.27015 |
| 268 | 4 | 0.593618 | 43618.55 | 29.01513 | 0.219562 |
| 269 | 4 | 0.589766 | 43822.58 | 28.58835 | 0.236009 |
| 270 | 4 | 0.594588 | 43948.81 | 29.23263 | 0.211499 |
| 271 | 4 | 0.597622 | 44057.01 | 29.78653 | 0.191928 |
| 272 | 4 | 0.590948 | 44208.77 | 30.9273 | 0.15589 |
| 273 | 4 | 0.600049 | 44583.84 | 31.34432 | 0.144101 |
| 274 | 4 | 0.587211 | 44438.46 | 30.24582 | 0.176738 |
| 275 | 4 | 0.590546 | 44672.29 | 30.36107 | 0.173071 |
| 276 | 4 | 0.59082 | 44931.04 | 29.07481 | 0.217328 |
| 277 | 4 | 0.59175 | 45321.45 | 28.77291 | 0.228795 |
| 278 | 4 | 0.589681 | 45588.07 | 29.25769 | 0.210583 |
| 279 | 4 | 0.592285 | 45774.08 | 29.20831 | 0.21239 |
| 280 | 4 | 0.592586 | 45943.07 | 28.8742 | 0.224901 |
| 281 | 4 | 0.591916 | 46129.36 | 29.22984 | 0.211601 |
| 282 | 4 | 0.593593 | 46251.41 | 28.12136 | 0.254955 |
| 283 | 4 | 0.592465 | 46242.97 | 28.36201 | 0.245068 |
| 284 | 4 | 0.595853 | 46392.3 | 27.68215 | 0.273675 |
| 285 | 4 | 0.595767 | 46459.65 | 27.85334 | 0.266275 |
| 286 | 4 | 0.618471 | 46638.8 | 28.30101 | 0.247549 |
| 287 | 4 | 0.668011 | 46017.68 | 28.14331 | 0.254042 |
| 288 | 4 | 0.667185 | 45647.6 | 28.22343 | 0.250729 |
| 289 | 4 | 0.65497 | 45889.38 | 27.00496 | 0.304222 |
| 290 | 4 | 0.65843 | 46023.92 | 27.25006 | 0.292933 |
| 291 | 4 | 0.58553 | 46526.83 | 25.97882 | 0.35424 |
| 292 | 4 | 0.583604 | 46588.46 | 25.79857 | 0.363464 |
| 293 | 4 | 0.576195 | 46850.08 | 28.11314 | 0.255297 |
| 294 | 4 | 0.577168 | 46980.54 | 27.72681 | 0.271731 |
| 295 | 4 | 0.574785 | 47294.47 | 29.93418 | 0.186943 |
| 296 | 2 | 0.491001 | 48233.62 | 39.9939 | 0.156671 |
| 297 | 2 | 0.485202 | 48408 | 40.39896 | 0.146465 |
| 298 | 2 | 0.465839 | 48832.57 | 37.95386 | 0.216298 |
| 299 | 2 | 0.475177 | 48310.23 | 36.85175 | 0.254393 |
| 300 | 2 | 0.474858 | 48083.31 | 37.28364 | 0.23897 |
| 301 | 4 | 0.5739 | 47777.9 | 27.04689 | 0.302272 |
| 302 | 4 | 0.587874 | 47871.34 | 27.43167 | 0.284738 |
| 303 | 2 | 0.484123 | 48564.22 | 35.38184 | 0.311557 |
| 304 | 4 | 0.575307 | 48276.21 | 27.37405 | 0.287322 |
| 305 | 2 | 0.481246 | 48865.43 | 36.36353 | 0.272588 |
| 306 | 2 | 0.48146 | 49084.6 | 35.35129 | 0.312819 |
| 307 | 2 | 0.478163 | 49456.48 | 35.15151 | 0.321145 |
| 308 | 2 | 0.467663 | 49699.01 | 35.56903 | 0.303886 |
| 309 | 2 | 0.467115 | 49861.35 | 35.45682 | 0.308471 |
| 310 | 2 | 0.467147 | 50020.13 | 34.8771 | 0.332783 |
| 311 | 2 | 0.467148 | 50114.35 | 33.81045 | 0.38009 |
| 312 | 2 | 0.46661 | 50285.09 | 32.48534 | 0.442863 |
| 313 | 2 | 0.466388 | 50433.89 | 32.28023 | 0.452906 |
| 314 | 2 | 0.462479 | 50703.27 | 31.40093 | 0.496717 |
| 315 | 2 | 0.463151 | 50499.66 | 30.73334 | 0.530585 |
| 316 | 2 | 0.461099 | 50586.27 | 31.31943 | 0.50083 |
| 317 | 2 | 0.458576 | 50711.56 | 30.93577 | 0.520276 |
| 318 | 2 | 0.459368 | 50872.12 | 32.2707 | 0.453375 |
| 319 | 2 | 0.45768 | 50966.83 | 33.01849 | 0.417137 |
| 320 | 2 | 0.457742 | 51191.88 | 32.60823 | 0.436883 |
| 321 | 2 | 0.45773 | 51420.36 | 31.90795 | 0.471318 |
| 322 | 2 | 0.458613 | 51575.37 | 31.66817 | 0.483288 |
| 323 | 2 | 0.458281 | 51717.98 | 31.19615 | 0.507063 |
| 324 | 2 | 0.455132 | 51898.79 | 30.97827 | 0.518115 |
| 325 | 2 | 0.454973 | 52045.16 | 30.67969 | 0.533321 |
| 326 | 2 | 0.453734 | 52241.82 | 31.22462 | 0.505622 |
| 327 | 2 | 0.453558 | 52386.74 | 31.27924 | 0.50286 |
| 328 | 2 | 0.453876 | 52472.84 | 31.72497 | 0.480445 |
| 329 | 2 | 0.452644 | 52556.92 | 31.24811 | 0.504434 |
| 330 | 2 | 0.453165 | 52701.99 | 31.32411 | 0.500593 |
| 331 | 2 | 0.447877 | 52876.8 | 30.81734 | 0.526304 |
| 332 | 2 | 0.447024 | 53114.42 | 31.03919 | 0.515021 |
| 333 | 2 | 0.448181 | 53275.6 | 31.00722 | 0.516645 |
| 334 | 2 | 0.447816 | 53428.48 | 31.39217 | 0.497159 |
| 335 | 2 | 0.450192 | 53629.3 | 30.68121 | 0.533244 |
| 336 | 2 | 0.448284 | 53814.93 | 31.20317 | 0.506708 |
| 337 | 2 | 0.446112 | 53994.57 | 30.91497 | 0.521334 |
| 338 | 2 | 0.445467 | 54208.16 | 30.31062 | 0.552184 |
| 339 | 2 | 0.439376 | 54585.37 | 30.06044 | 0.564994 |
| 340 | 2 | 0.440656 | 54677.11 | 30.2142 | 0.55712 |
| 341 | 2 | 0.444194 | 54898.95 | 29.93109 | 0.571619 |
| 342 | 2 | 0.446571 | 55008.86 | 30.56133 | 0.539364 |
| 343 | 2 | 0.446272 | 55166.07 | 30.70227 | 0.532169 |
| 344 | 2 | 0.449816 | 55368.11 | 30.23554 | 0.556028 |
| 345 | 2 | 0.450588 | 55476.34 | 30.31349 | 0.552038 |
| 346 | 2 | 0.449575 | 55622.41 | 30.45536 | 0.54478 |
| 347 | 2 | 0.451458 | 55806.67 | 30.38842 | 0.548204 |
| 348 | 2 | 0.452214 | 55931.95 | 31.0965 | 0.512113 |
| 349 | 2 | 0.452208 | 56107.16 | 30.56601 | 0.539125 |
| 350 | 2 | 0.454675 | 56286.36 | 31.71878 | 0.480755 |
| 351 | 2 | 0.450678 | 56597.22 | 31.14855 | 0.509474 |
| 352 | 2 | 0.453454 | 56677.57 | 31.58914 | 0.48725 |
| 353 | 2 | 0.453324 | 56853.88 | 31.87531 | 0.472943 |
| 354 | 2 | 0.453741 | 57032.66 | 31.83227 | 0.475087 |
| 355 | 2 | 0.453777 | 57182.43 | 31.91554 | 0.470941 |
| 356 | 2 | 0.453604 | 57345.49 | 32.31821 | 0.451041 |
| 357 | 2 | 0.453508 | 57532.45 | 32.51456 | 0.441438 |

**B2. Descriptive statistics of uncertainties**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| h | nobs | Kendall | Spearman | Canada | | | | USA | | | |
| Mean | std | skew | kurtosis | Mean | std | skew | kurtosis |
| 1 | 278 | 0.1023 | 0.1502 | 0.0774 | 2.4594 | -0.0866 | 0.4756 | 0.1150 | 5.6359 | -0.5622 | 6.0269 |
| 2 | 277 | 0.0450 | 0.0652 | 0.4183 | 3.4323 | -0.0513 | -0.0615 | -0.1832 | 5.5332 | -1.0123 | 7.8081 |
| 3 | 276 | -0.0463 | -0.0614 | 0.5099 | 4.0154 | -0.1361 | 0.0335 | -0.0757 | 6.7857 | -1.3927 | 9.1881 |
| 4 | 275 | -0.1175 | -0.1670 | 0.5727 | 4.2469 | -0.1803 | -0.2003 | -0.2025 | 7.7796 | -1.7337 | 9.6529 |
| 5 | 274 | -0.1556 | -0.2282 | 0.5571 | 4.5428 | -0.3904 | 0.1072 | -0.2339 | 9.5954 | -1.8271 | 8.5436 |
| 6 | 273 | -0.1946 | -0.2887 | 0.7829 | 4.7819 | -0.2724 | 0.2050 | -0.2544 | 10.2639 | -1.7986 | 8.3365 |
| 7 | 272 | -0.1727 | -0.2578 | 0.7755 | 4.9516 | -0.2249 | 0.3402 | -0.2234 | 11.8154 | -1.6867 | 7.3882 |
| 8 | 271 | -0.2074 | -0.3092 | 0.7886 | 5.2261 | -0.1788 | 0.0752 | -0.3211 | 12.9694 | -1.6880 | 6.8057 |
| 9 | 270 | -0.2293 | -0.3355 | 0.7731 | 5.2384 | -0.1662 | 0.0292 | -0.2889 | 14.4287 | -1.6816 | 6.4108 |
| 10 | 269 | -0.2582 | -0.3820 | 0.8730 | 5.5260 | -0.0471 | -0.1510 | -0.4779 | 15.2682 | -1.6651 | 6.2601 |
| 11 | 268 | -0.2462 | -0.3717 | 1.0810 | 5.6373 | -0.0648 | -0.0821 | -0.5425 | 16.6541 | -1.5188 | 5.2808 |
| 12 | 267 | -0.2639 | -0.3967 | 1.1537 | 5.9321 | -0.0693 | -0.0243 | -0.8477 | 17.2739 | -1.4685 | 4.6046 |
| 13 | 266 | -0.2835 | -0.4239 | 1.1210 | 5.5074 | -0.1068 | -0.0677 | -0.7104 | 16.6335 | -1.3677 | 4.1062 |
| 14 | 265 | -0.2993 | -0.4429 | 1.3000 | 5.2195 | -0.1288 | 0.0129 | -1.1045 | 15.7046 | -1.3435 | 3.8454 |
| 15 | 264 | -0.3232 | -0.4712 | 1.2584 | 4.9527 | -0.1796 | -0.0177 | -0.8648 | 14.7166 | -1.2419 | 3.5786 |
| 16 | 263 | -0.3417 | -0.5013 | 1.2656 | 4.7764 | -0.2023 | -0.1392 | -0.9831 | 14.2023 | -1.1680 | 3.2117 |
| 17 | 262 | -0.3345 | -0.4883 | 1.1617 | 4.5175 | -0.1507 | -0.2275 | -0.8496 | 13.5755 | -1.0012 | 3.0271 |
| 18 | 261 | -0.3118 | -0.4515 | 1.2514 | 4.4049 | -0.1788 | -0.2576 | -0.8265 | 13.2787 | -0.9565 | 2.8676 |
| 19 | 260 | -0.2944 | -0.4300 | 1.1779 | 4.2356 | -0.1718 | -0.1473 | -0.6602 | 12.9088 | -0.7712 | 2.5433 |
| 20 | 259 | -0.2813 | -0.4118 | 1.1568 | 4.2247 | -0.1510 | -0.0527 | -0.6981 | 12.7493 | -0.6250 | 2.1389 |
| 21 | 258 | -0.2661 | -0.3858 | 1.1639 | 4.2650 | -0.0161 | 0.0645 | -0.5263 | 12.3987 | -0.4490 | 1.6976 |
| 22 | 257 | -0.2416 | -0.3509 | 1.2072 | 4.1257 | 0.1441 | 0.1561 | -0.6078 | 12.4574 | -0.3768 | 1.3394 |
| 23 | 256 | -0.2039 | -0.2966 | 1.3862 | 4.1814 | 0.3166 | 0.3756 | -0.4684 | 12.0912 | -0.2644 | 0.9519 |
| 24 | 255 | -0.1952 | -0.2870 | 1.4582 | 4.3578 | 0.4324 | 0.4839 | -0.6285 | 11.7076 | -0.2424 | 0.8159 |

**B3. Recursive forecast accuracy study (Canada)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| h | TPN | | | WSN | | | Amisano-Giacomini | p-val (A-G) |
| Cramer-von Mises | Berkowitz | p-val (Berkowitz) | Cramer-von Mises | Berkowitz | p-val (Berkowitz) |
| 1 | 5.6453 | 523.1213 | 0.0000 | 8.9973 | 1.1007 | 0.5767 | -1.4644 | 0.0715 |
| 2 | 5.8027 | 626.6363 | 0.0000 | 7.9537 | 2.5178 | 0.2840 | -1.3285 | 0.0920 |
| 3 | 4.5639 | 707.4103 | 0.0000 | 7.0444 | 8.9093 | 0.0116 | -1.3440 | 0.0895 |
| 4 | 5.2958 | 686.5067 | 0.0000 | 6.8464 | 4.9001 | 0.0863 | -1.4152 | 0.0785 |
| 5 | 4.3570 | 675.2162 | 0.0000 | 6.6038 | 36.3524 | 0.0000 | -1.3355 | 0.0909 |
| 6 | 4.3454 | 797.9584 | 0.0000 | 6.1521 | 33.5919 | 0.0000 | -0.6110 | 0.2706 |
| 7 | 4.5510 | 1003.4279 | 0.0000 | 5.9305 | 46.5454 | 0.0000 | -1.5241 | 0.0637 |
| 8 | 4.7935 | 1684.6394 | 0.0000 | 5.3367 | 21.2686 | 0.0000 | -1.5967 | 0.0552 |
| 9 | 4.3210 | 1625.5460 | 0.0000 | 5.0011 | 20.7640 | 0.0000 | -1.5891 | 0.0560 |
| 10 | 5.5241 | 2287.6162 | 0.0000 | 4.6634 | 9.8537 | 0.0072 | -1.3156 | 0.0942 |
| 11 | 5.2967 | 2196.2971 | 0.0000 | 4.6234 | 9.7331 | 0.0077 | -1.2590 | 0.1040 |
| 12 | 5.3646 | 2174.0973 | 0.0000 | 4.4773 | 15.6365 | 0.0004 | -1.2624 | 0.1034 |
| 13 | 5.9479 | 2158.1830 | 0.0000 | 4.3057 | 15.8545 | 0.0004 | -1.2303 | 0.1093 |
| 14 | 5.5139 | 2114.2880 | 0.0000 | 4.2632 | 18.2027 | 0.0001 | -1.2092 | 0.1133 |
| 15 | 7.5702 | 2175.9927 | 0.0000 | 4.1891 | 18.0176 | 0.0001 | -1.2130 | 0.1126 |
| 16 | 6.2178 | 2056.7268 | 0.0000 | 4.1263 | 16.7499 | 0.0002 | -1.3295 | 0.0918 |
| 17 | 7.2183 | 2099.7546 | 0.0000 | 4.1426 | 7.0023 | 0.0302 | -1.2145 | 0.1123 |
| 18 | 6.5794 | 2064.6997 | 0.0000 | 4.2030 | 6.5683 | 0.0375 | -1.3337 | 0.0912 |
| 19 | 7.5743 | 2079.1207 | 0.0000 | 4.3439 | 10.6222 | 0.0049 | -1.4168 | 0.0783 |
| 20 | 6.3500 | 2006.7791 | 0.0000 | 4.3227 | 9.5581 | 0.0084 | -1.2363 | 0.1082 |
| 21 | 6.7017 | 1959.6563 | 0.0000 | 4.4322 | 15.5316 | 0.0004 | -1.3135 | 0.0945 |
| 22 | 6.3918 | 1933.4364 | 0.0000 | 4.5732 | 14.9423 | 0.0006 | -1.3773 | 0.0842 |
| 23 | 7.5748 | 1902.6904 | 0.0000 | 4.4280 | 11.3234 | 0.0035 | -1.3692 | 0.0855 |
| 24 | 7.9927 | 1969.5243 | 0.0000 | 4.2476 | 5.7021 | 0.0578 | -1.3225 | 0.0930 |

**B4. Recursive forecast accuracy study (USA)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| h | TPN | | | WSN | | | Amisano-Giacomini | p-val (A-G) |
| Cramer-von Mises | Berkowitz |  |  | Berkowitz | p-val (Berkowitz) |
| 1 | 8.7469 | 25.5486 | 0.0000 | 9.0406 | 84.1908 | 0.0000 | -3.3195 | 0.0005 |
| 2 | 8.0517 | 60.5099 | 0.0000 | 8.1495 | 101.9555 | 0.0000 | -3.4276 | 0.0003 |
| 3 | 7.2029 | 65.5659 | 0.0000 | 7.4201 | 116.8388 | 0.0000 | -3.2437 | 0.0006 |
| 4 | 6.6449 | 81.2703 | 0.0000 | 6.8139 | 120.6889 | 0.0000 | -2.6063 | 0.0046 |
| 5 | 6.1002 | 82.9989 | 0.0000 | 5.9284 | 85.8856 | 0.0000 | -2.9220 | 0.0017 |
| 6 | 5.7055 | 74.6635 | 0.0000 | 5.4952 | 76.3216 | 0.0000 | -2.7046 | 0.0034 |
| 7 | 5.0579 | 60.8460 | 0.0000 | 4.9079 | 63.2367 | 0.0000 | -2.1002 | 0.0179 |
| 8 | 4.7307 | 62.8581 | 0.0000 | 4.4706 | 51.6455 | 0.0000 | -2.1338 | 0.0164 |
| 9 | 4.3116 | 60.1672 | 0.0000 | 3.9969 | 57.8688 | 0.0000 | -2.1892 | 0.0143 |
| 10 | 3.9493 | 58.7567 | 0.0000 | 3.7874 | 61.2256 | 0.0000 | -2.3160 | 0.0103 |
| 11 | 3.5573 | 55.9608 | 0.0000 | 3.2747 | 49.6257 | 0.0000 | -1.8075 | 0.0353 |
| 12 | 3.3972 | 48.0181 | 0.0000 | 3.1687 | 48.2439 | 0.0000 | -2.3999 | 0.0082 |
| 13 | 3.3802 | 44.5208 | 0.0000 | 3.0572 | 39.5905 | 0.0000 | -2.0987 | 0.0179 |
| 14 | 3.4889 | 44.6220 | 0.0000 | 3.1737 | 38.8197 | 0.0000 | -1.9088 | 0.0281 |
| 15 | 3.5753 | 38.6994 | 0.0000 | 3.3131 | 36.8485 | 0.0000 | -2.2526 | 0.0121 |
| 16 | 3.6146 | 33.5235 | 0.0000 | 3.3531 | 26.9864 | 0.0000 | -2.3072 | 0.0105 |
| 17 | 3.6248 | 29.7888 | 0.0000 | 3.3701 | 23.3372 | 0.0000 | -2.6630 | 0.0039 |
| 18 | 3.4930 | 20.1028 | 0.0000 | 3.3343 | 18.5653 | 0.0001 | -2.1842 | 0.0145 |
| 19 | 3.4364 | 11.7624 | 0.0028 | 3.2131 | 11.2915 | 0.0035 | -2.7549 | 0.0029 |
| 20 | 3.3645 | 6.2889 | 0.0431 | 2.9643 | 4.7851 | 0.0914 | -1.6647 | 0.0480 |
| 21 | 3.3189 | 2.6934 | 0.2601 | 3.0225 | 2.5212 | 0.2835 | -1.9131 | 0.0279 |
| 22 | 3.2470 | 1.9399 | 0.3791 | 3.0333 | 1.7430 | 0.4183 | -2.6103 | 0.0045 |
| 23 | 3.1154 | 1.7551 | 0.4158 | 2.7855 | 1.5755 | 0.4549 | -1.2006 | 0.1150 |
| 24 | 3.1869 | 4.4276 | 0.1093 | 2.7641 | 2.2705 | 0.3213 | -1.1297 | 0.1293 |