

Online appendices to:

Skating on Thin Evidence: Implications for Public Policy

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Appendix A

List of Articles with Included Meta-analyses

Some studies report more than one meta-study. The number is reported in []-brackets

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Appendix B

Table 1B. Median SMAPE in percent for $k = 5, 10,$ and 20

| Estimator | Estimates of true effect: | | | |
|--------------------------------|---------------------------|-------------------------|--------------------|------------------------|
| | (1) <i>WLS</i> | (2) <i>PET-PEESE</i> | (3) <i>WAAP</i> | (4) <i>WAAP-WLS</i> |
| Part A. Results for $k = 5$ | | | | |
| (1) Mean | 90 | 136 | 109 | 112 |
| (2) Median | 78 | 135 | 86 | 108 |
| (3) Paldam | 71 | 115 | 79 | 87 |
| (4) <i>WLS</i> | 66 | 124 | 79 | 98 |
| (5) <i>PET-PEESE</i> | 132 | 140 | 109 | 138 |
| (6) <i>WAAP-WLS</i> | 80 | 129 | 89 | 92 |
| <i>Median for true effects</i> | 79 | 132 | 87 | 103 |
| Part B. Results for $k = 10$ | | | | |
| (1) Mean | 80 | 117 | 95 | 103 |
| (2) Median | 69 | 124 | 77 | 102 |
| (3) Paldam | 64 | 106 | 73 | 76 |
| (4) <i>WLS</i> | 57 | 99 | 58 | 70 |
| (5) <i>PET-PEESE</i> | 113 | 106 | 109 | 118 |
| (6) <i>WAAP-WLS</i> | 72 | 105 | 67 | 74 |
| <i>Median for true effects</i> | 70 | 106 | 75 | 89 |
| Part C. Results for $k = 20$ | | | | |
| (1) Mean | 80 | 116 | 95 | 103 |
| (2) Median | 67 | 120 | 83 | 95 |
| (3) Paldam | 61 | 99 | 69 | 74 |
| (4) <i>WLS</i> | 50 | 80 | 61 | 63 |
| (5) <i>PET-PEESE</i> | 101 | 91 | 96 | 101 |
| (6) <i>WAAP-WLS</i> | 63 | 92 | 63 | 65 |
| <i>Median for true effects</i> | 65 | 96 | 76 | 84 |

Source: k denotes the number of studies. Bold highlights lowest SMAPE.

Table 2B. Summary of MAPE and SMAPE medians reported as a percent, for the 9 meta-studies with $k \geq 80$

| Number of studies, k | (1) 5 | (2) 10 | (3) 20 | Median of Medians |
|--|----------|-----------|-----------|----------------------|
| Part A: Summary of median MAPE for each estimator | | | | |
| (1) Mean | 194 | 165 | 156 | 165 |
| (2) Median | 346 | 260 | 226 | 260 |
| (3) Paldam | 74 | 73 | 69 | 73 |
| (4) <i>WLS</i> | 276 | 179 | 156 | 179 |
| (5) <i>PET-PEESE</i> | 373 | 341 | 248 | 341 |
| (6) <i>WAAP-WLS</i> | 276 | 192 | 173 | 192 |
| Part B. Summary of median SMAPE for each estimator | | | | |
| (1) Mean | 95 | 99 | 84 | 95 |
| (2) Median | 124 | 99 | 91 | 99 |
| (3) Paldam | 74 | 96 | 91 | 91 |
| (4) <i>WLS</i> | 113 | 87 | 81 | 87 |
| (5) <i>PET-PEESE</i> | 154 | 163 | 122 | 154 |
| (6) <i>WAAP-WLS</i> | 113 | 92 | 88 | 92 |

Table 3B. Summary of MAPE and SMAPE medians reported as a percent, for the 41 meta-studies with $k \geq 40$

| Number of studies, k | (1) 5 | (2) 10 | (3) 20 | Median of Medians |
|--|----------|-----------|-----------|----------------------|
| Part A: Summary of median MAPE for each estimator | | | | |
| (1) Mean | 285 | 271 | 271 | 271 |
| (2) Median | 331 | 257 | 209 | 257 |
| (3) Paldam | 99 | 102 | 101 | 101 |
| (4) <i>WLS</i> | 153 | 109 | 117 | 117 |
| (5) <i>PET-PEESE</i> | 159 | 174 | 153 | 159 |
| (6) <i>WAAP-WLS</i> | 91 | 96 | 77 | 91 |
| Part B. Summary of median SMAPE for each estimator | | | | |
| (1) Mean | 118 | 118 | 117 | 118 |
| (2) Median | 126 | 105 | 98 | 105 |
| (3) Paldam | 101 | 96 | 87 | 96 |
| (4) <i>WLS</i> | 118 | 81 | 79 | 81 |
| (5) <i>PET-PEESE</i> | 136 | 122 | 111 | 122 |
| (6) <i>WAAP-WLS</i> | 118 | 93 | 88 | 93 |