

IMF and Benchmark Forecasts

1 A short note on error handling

In almost all 72 cases, absolute error handling gives lower scores than directional error handling. The only exception is the inflation series for the IMF forecasts and horizon 0, where the expanding window and rolling window method give *slightly* lower scores for the directional methodology. We thus decide to focus on the absolute errors in this document.

2 Scores, by estimation method, Horizon and forecast source

| | IMF | ar | bvar |
|---------------------------------|-------|-------|-------|
| horizon = 0 | | | |
| expanding window_interval_score | 0.115 | 0.123 | 0.122 |
| expanding window_sample_crps | 0.087 | 0.092 | 0.091 |
| leave-one-out_interval_score | 0.119 | 0.133 | 0.134 |
| leave-one-out_sample_crps | 0.088 | 0.099 | 0.100 |
| rolling window_interval_score | 0.119 | 0.128 | 0.126 |
| rolling window_sample_crps | 0.094 | 0.097 | 0.098 |
| horizon = 0.5 | | | |
| expanding window_interval_score | 0.258 | 0.272 | 0.296 |
| expanding window_sample_crps | 0.182 | 0.208 | 0.241 |
| leave-one-out_interval_score | 0.261 | 0.313 | 0.317 |

| | | | |
|-------------------------------|-------|-------|-------|
| leave-one-out_sample_crps | 0.180 | 0.217 | 0.230 |
| rolling window_interval_score | 0.261 | 0.266 | 0.288 |
| rolling window_sample_crps | 0.191 | 0.201 | 0.235 |

horizon = 1

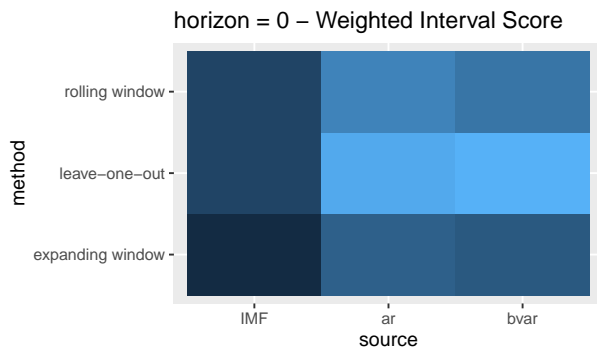
| | | | |
|---------------------------------|-------|-------|-------|
| expanding window_interval_score | 0.448 | 0.737 | 0.590 |
| expanding window_sample_crps | 0.327 | 0.504 | 0.426 |
| leave-one-out_interval_score | 0.427 | 0.726 | 0.600 |
| leave-one-out_sample_crps | 0.302 | 0.448 | 0.400 |
| rolling window_interval_score | 0.451 | 0.739 | 0.591 |
| rolling window_sample_crps | 0.333 | 0.514 | 0.434 |

horizon = 1.5

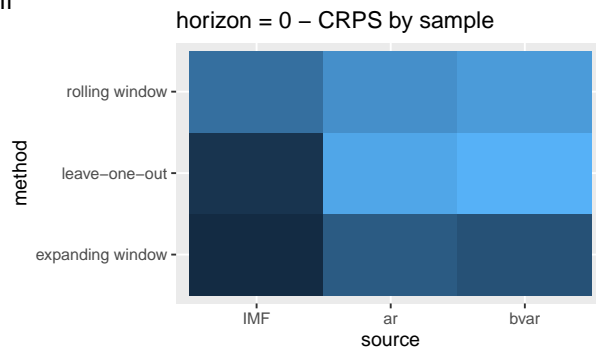
| | | | |
|---------------------------------|-------|-------|-------|
| expanding window_interval_score | 0.495 | 1.044 | 0.800 |
| expanding window_sample_crps | 0.346 | 0.627 | 0.602 |
| leave-one-out_interval_score | 0.487 | 1.103 | 0.903 |
| leave-one-out_sample_crps | 0.337 | 0.583 | 0.577 |
| rolling window_interval_score | 0.494 | 1.041 | 0.779 |
| rolling window_sample_crps | 0.347 | 0.632 | 0.570 |

9 2.1 Inflation

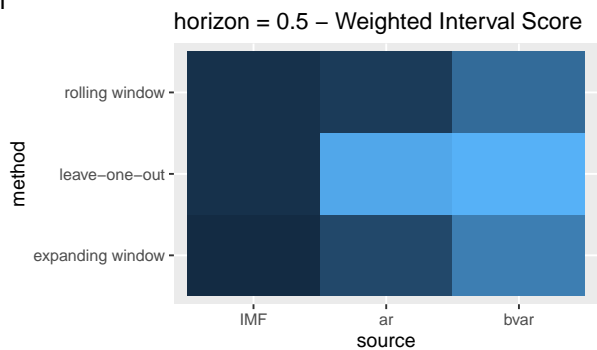
I



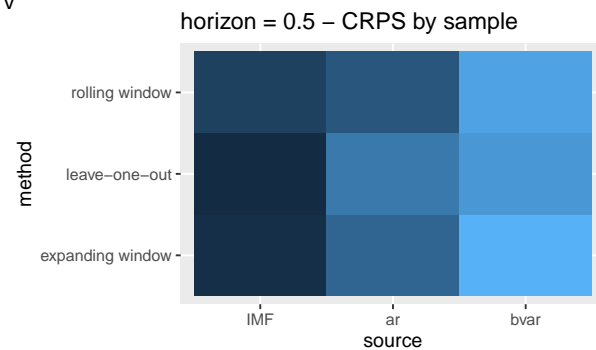
II



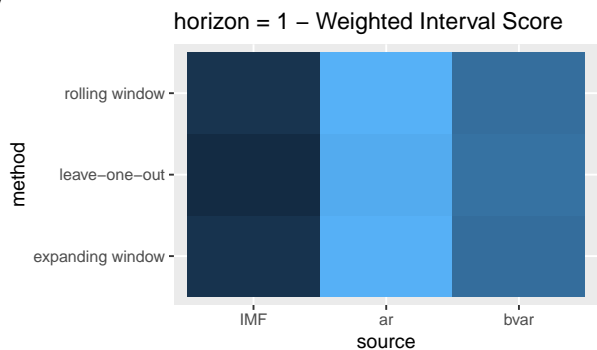
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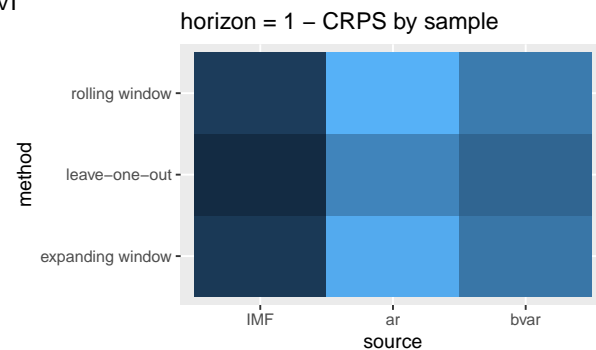
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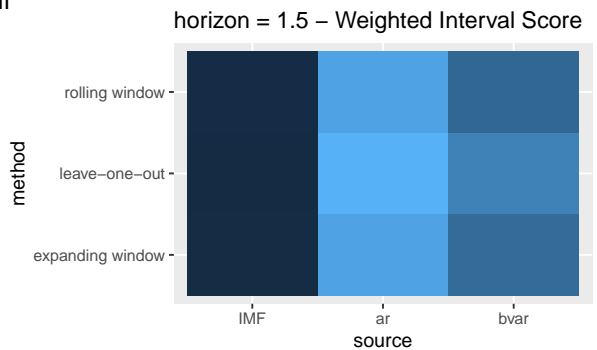
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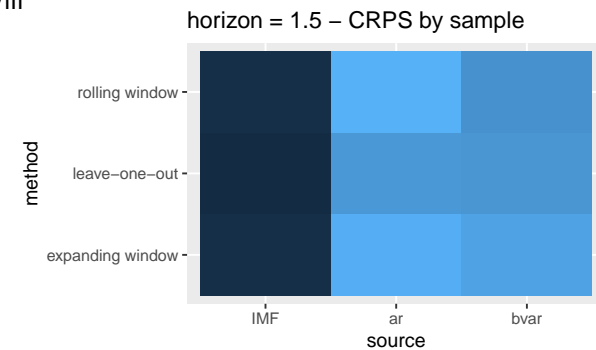
VI



VII



VIII

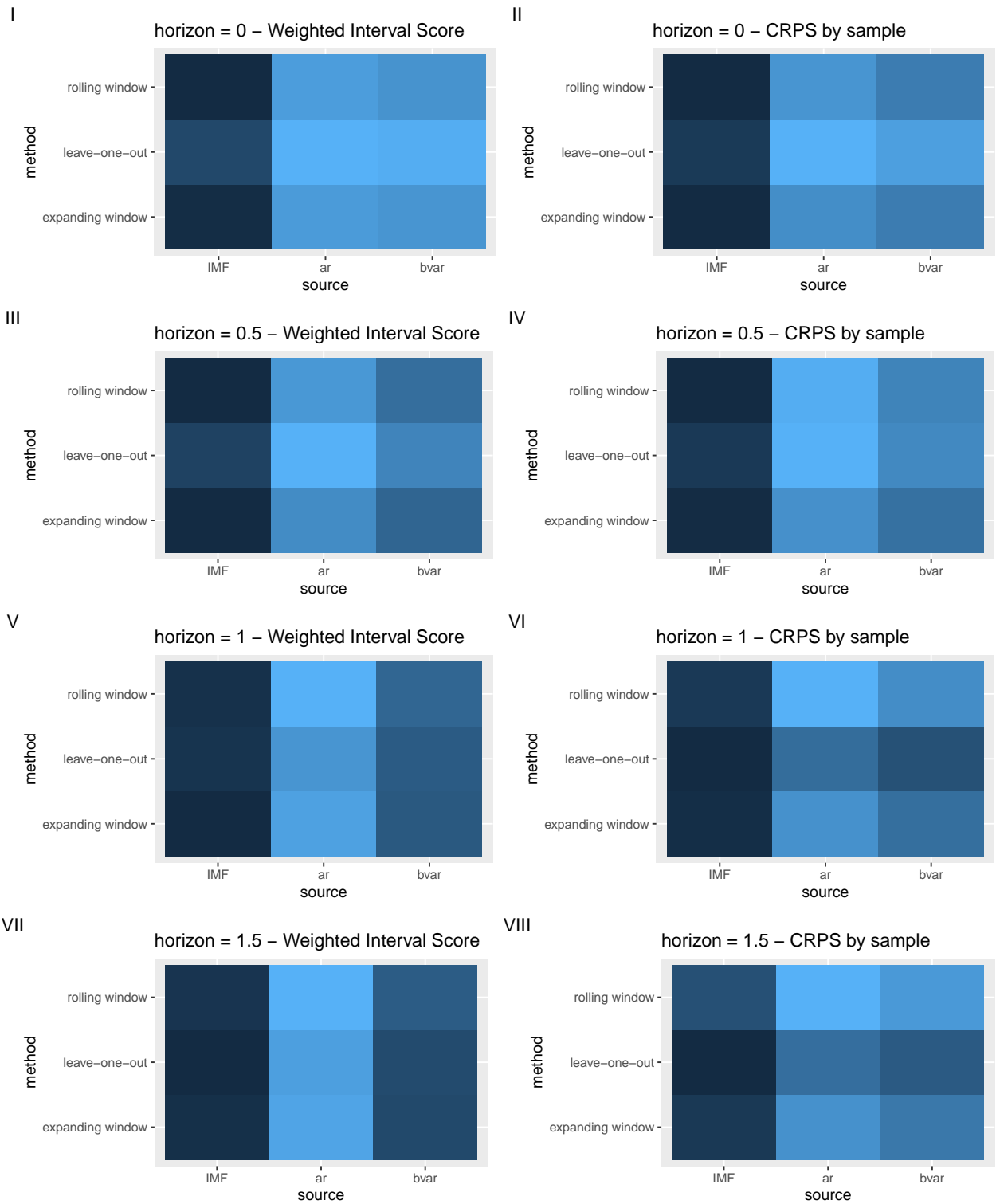


10

11 2.2 GDP

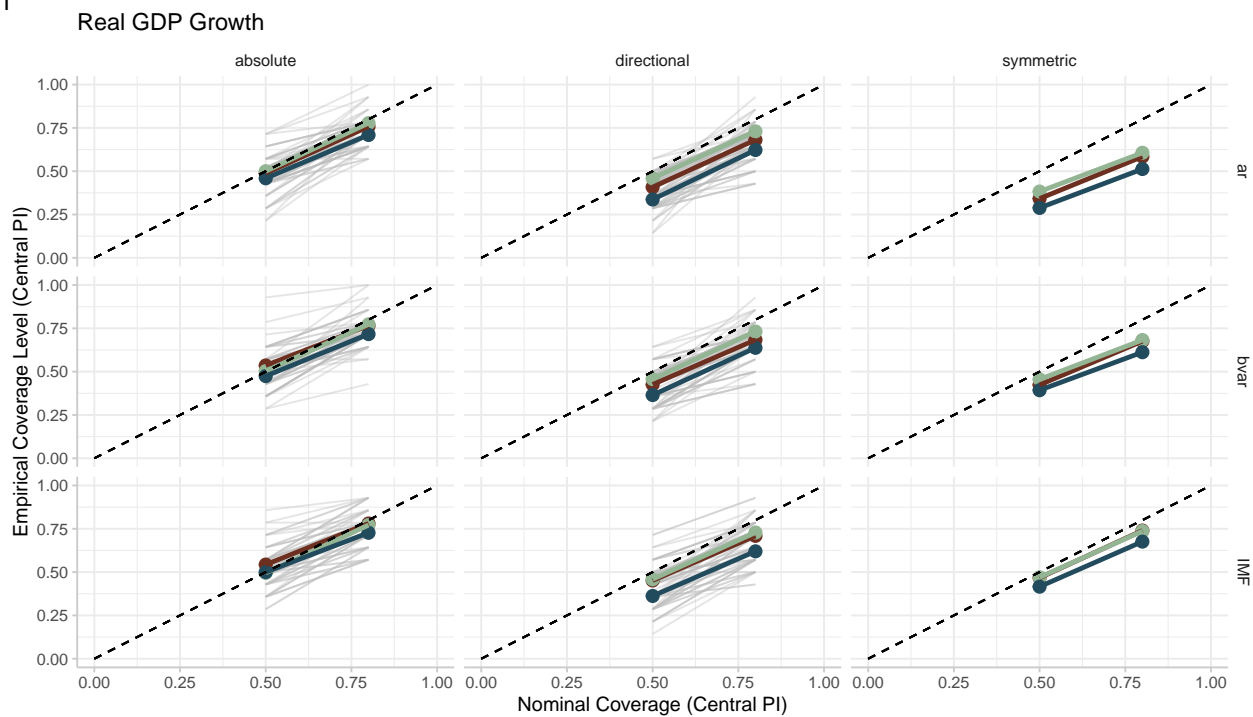
| | IMF | ar | bvar |
|---------------------------------|-------|-------|-------|
| horizon = 0 | | | |
| expanding window_interval_score | 0.241 | 0.301 | 0.298 |
| expanding window_sample_crps | 0.178 | 0.209 | 0.204 |
| leave-one-out_interval_score | 0.257 | 0.312 | 0.310 |
| leave-one-out_sample_crps | 0.183 | 0.219 | 0.214 |
| rolling window_interval_score | 0.240 | 0.302 | 0.297 |
| rolling window_sample_crps | 0.178 | 0.211 | 0.204 |
| horizon = 0.5 | | | |
| expanding window_interval_score | 0.416 | 0.540 | 0.493 |
| expanding window_sample_crps | 0.298 | 0.383 | 0.358 |
| leave-one-out_interval_score | 0.448 | 0.583 | 0.531 |
| leave-one-out_sample_crps | 0.310 | 0.408 | 0.377 |
| rolling window_interval_score | 0.416 | 0.554 | 0.504 |
| rolling window_sample_crps | 0.297 | 0.405 | 0.373 |
| horizon = 1 | | | |
| expanding window_interval_score | 0.837 | 1.090 | 0.942 |
| expanding window_sample_crps | 0.640 | 0.822 | 0.763 |
| leave-one-out_interval_score | 0.858 | 1.067 | 0.948 |
| leave-one-out_sample_crps | 0.634 | 0.759 | 0.709 |
| rolling window_interval_score | 0.851 | 1.122 | 0.970 |
| rolling window_sample_crps | 0.663 | 0.875 | 0.815 |
| horizon = 1.5 | | | |
| expanding window_interval_score | 1.045 | 1.288 | 1.102 |
| expanding window_sample_crps | 0.790 | 0.937 | 0.897 |

| | | | |
|-------------------------------|-------|-------|-------|
| leave-one-out_interval_score | 1.034 | 1.278 | 1.107 |
| leave-one-out_sample_crps | 0.765 | 0.882 | 0.849 |
| rolling window_interval_score | 1.056 | 1.312 | 1.143 |
| rolling window_sample_crps | 0.831 | 0.985 | 0.949 |

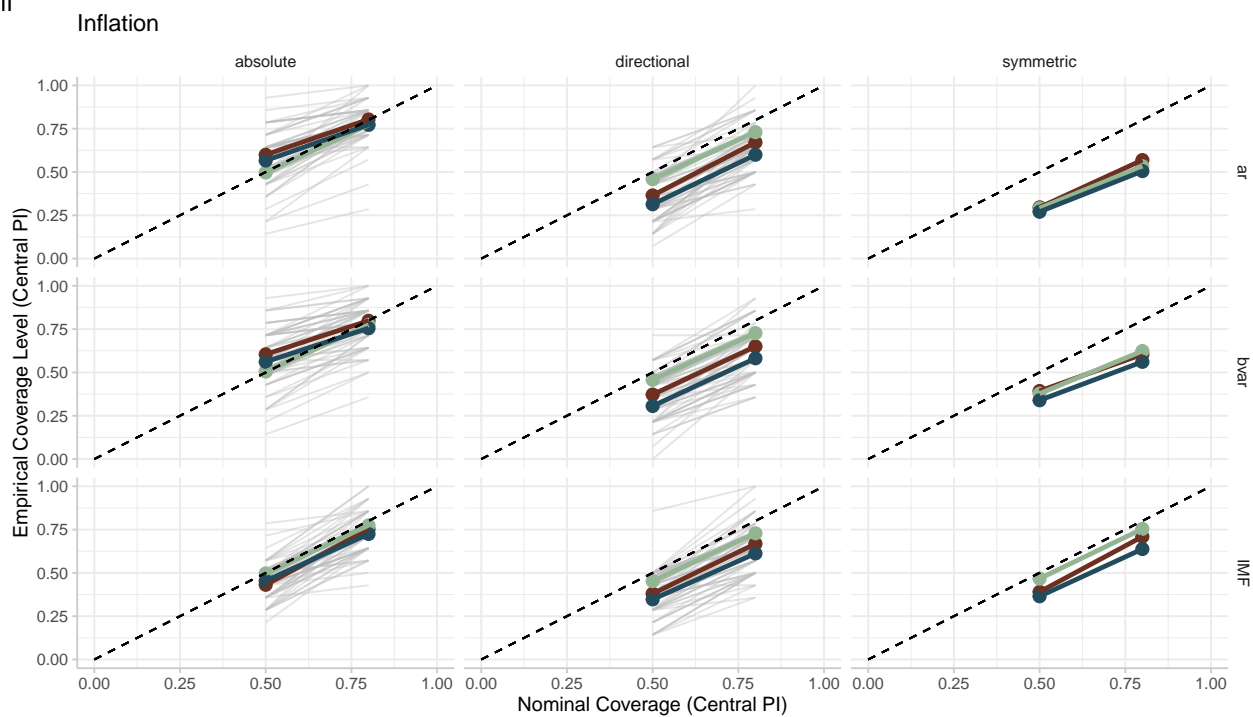


3 Coverage, by target, methods and source

I



II



expanding window leave-one-out rolling window