

Ensemble Size - Preliminary Results

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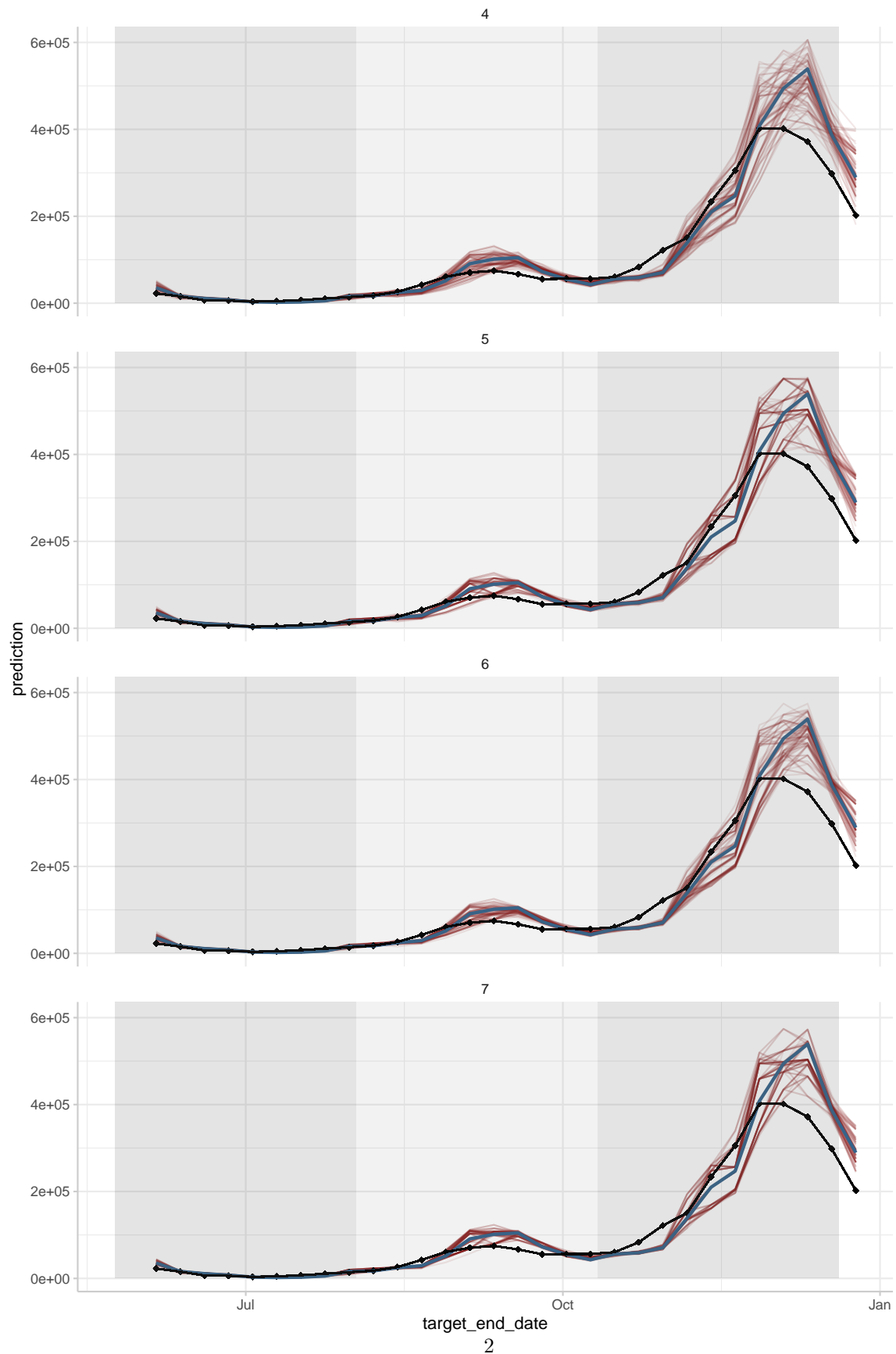
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This document shows some preliminary scoring results for ensembles of size $k \in \{4, 5, 6, 7\}$ that were recombined from all models available in the European Forecast Hub between 2021-05-24 and 2022-02-21 for **Cases** forecasts in **Germany**.

Score Table recombined ensembles

	Average WIS	rel. to Ens.	Std. Dev. WIS
Period 2, mean available models = 17.5			
k = 4	3532.0	1.14	499.6
k = 5	3545.5	1.14	471.0
k = 6	3415.0	1.10	371.4
k = 7	3372.3	1.09	315.3
Period 3, mean available models = 15.6			
k = 4	15557.1	1.07	4051.7
k = 5	15464.1	1.06	3885.0
k = 6	14690.8	1.01	3425.5
k = 7	14899.0	1.02	3280.0
Period 4, mean available models = 13.7			
k = 4	67741.9	1.21	13684.9
k = 5	70275.2	1.25	14689.4
k = 6	63532.0	1.13	9577.8
k = 7	64592.1	1.15	9224.9
Period 5, mean available models = 11.7			
k = 4	191996.0	1.33	37961.2
k = 5	193896.6	1.35	41879.4
k = 6	176667.0	1.23	30365.7
k = 7	167960.4	1.17	28588.3

Trajectories of recombined ensembles



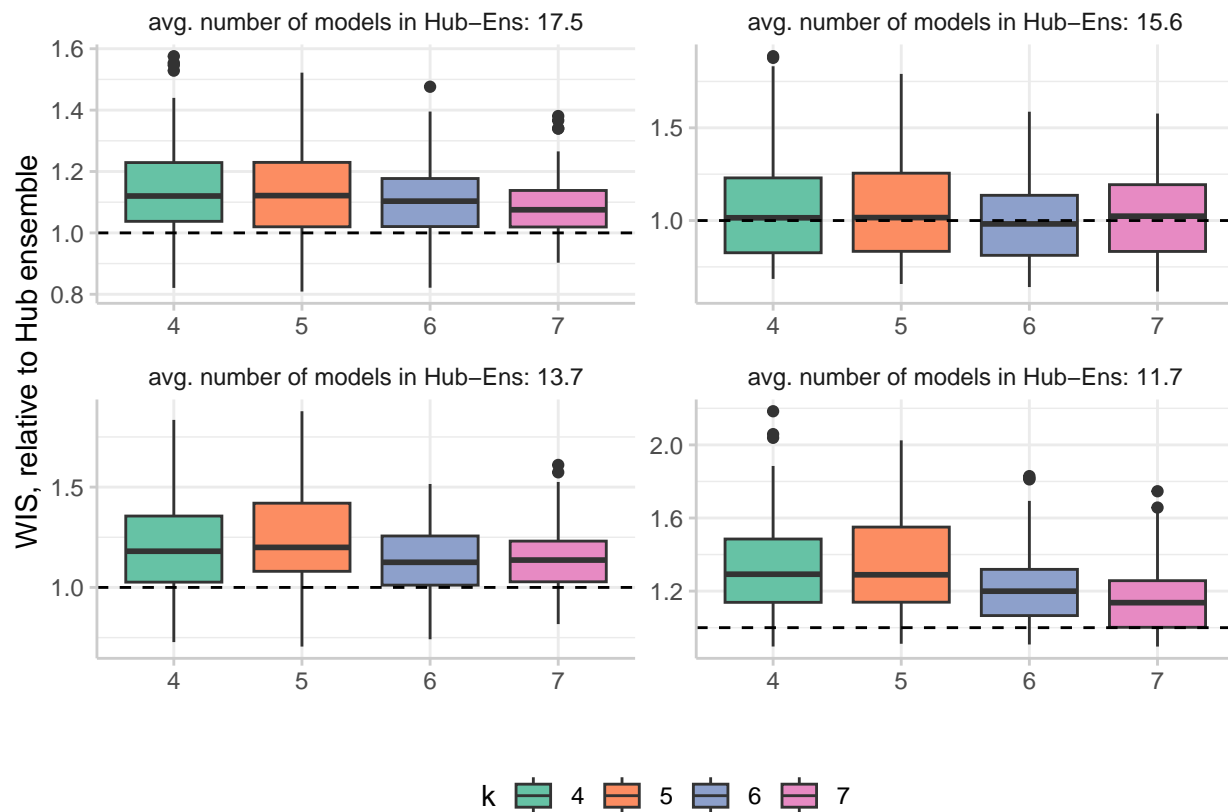
Some boxplotty boxplots

Scores of recombined ensembles, relative to Hub ensemble.

Each data point for boxplot is the sum of all WIS scores¹ for the recombined Ensemble $Ens^R_{k,p,i}$ of size k from period p , divided by the sum of all WIS scores for the Hub Ensemble $HubEns_p$ for period p , i.e.

$$\text{relWIS}(Ens^R_{k,p,i}) = \frac{\text{WIS}(Ens^R_{k,p,i})}{\text{WIS}(HubEns_p)}$$

This gives 100 data points for each combination of period p and size of recombination ensemble k , of which we can make boxplots:



¹yes, I know that's kinda like saying "Chai tea", but what you gonna do...