Application results

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We compare 1) the equally-weighted ensemble (EW), 2) the traditional linear pool (TLP), 3) the beta-transform linear pool (BLP), 4) the equally-weighted beta-transform linear pool, 5) the finite beta mixture 6) the finite beta mixture with equally-weighted component forecasts in the simulation studies and in the application of influenza forecasting. For both beta mixture approaches, the number of mixing beta components are $K = 2, 3, 4, 5$.

Methods

Let $f_1, ..., f_M$ be predictive density forecasts from M component forecasting models, the ensemble methods combine the component forecasting models as follows

Equally-weighted ensemble (EW)

The equally-weighted ensemble combines the component forecasting models with the aggregation predictive distribution function

$$f_{\text{EW}}(y) = \sum_{m=1}^{M} \frac{1}{M} f_m(y). \tag{1}$$

Traditional linear pool (TLP)

The TLP finds a set of optimal nonnegative weights w_i that maximize the likelihood of the aggregation predictive distribution function

$$f_{\text{TLP}}(y) = \sum_{m=1}^{M} w_m f_m(y), \tag{2}$$

where $\sum_{m=1}^{M} w_m = 1$. The TLP is underdispersed when the component models are probabilistically calibrated.

Beta-transform linear pool (BLP)

The BLP applies a beta transform on the combined predictive cumulative distribution function

$$F_{\text{BLP}}(y) = B_{\alpha,\beta}\Big(\sum_{m=1}^{M} w_m F_m(y)\Big), \tag{3}$$

Specifically, the BLP finds the transformation parameters $\alpha, \beta > 0$, and a set of nonnegative weights w_m that maximize the likelihood of the aggregated predictive distribution function

$$f_{\text{BLP}}(y) = \Big(\sum_{m=1}^{M} w_m f_m(y)\Big) b_{\alpha,\beta}\Big(\sum_{m=1}^{M} w_m F_m(y)\Big), \tag{4}$$

where $b_{\alpha,\beta}$ denotes the beta density and $\sum_{m=1}^{M} w_m = 1$.

Equally-weighted beta-transform linear pool (EW-BLP)

The EW-BLP applies a beta transform on the equally-weighted ensemble and has the predictive cumulative distribution function

$$F_{\text{EW-BLP}}(y) = B_{\alpha,\beta}\Big(\sum_{m=1}^{M} \frac{1}{M} F_m(y)\Big), \tag{5}$$

The EW-BLP finds the transformation parameters $\alpha, \beta > 0$ that maximize the likelihood of the aggregated predictive distribution function

$$f_{\text{EW-BLP}}(y) = \Big(\sum_{m=1}^{M} w_m f_m(y)\Big) b_{\alpha,\beta}\Big(\sum_{m=1}^{M} \frac{1}{M} F_m(y)\Big). \tag{6}$$

Finite beta mixture (BM_k)

The BM_k extends the BLP method by using a finite beta mixture combination formula

$$F_{\text{BM}_k}(y) = \sum_{k=1}^{K} w_k B_{\alpha,\beta}\Big(\sum_{m=1}^{M} \omega_{km} F_m(y)\Big), \tag{7}$$

where the vector $w_1, ..., w_K$ comprises the beta mixture weights, $\alpha_1, ..., \alpha_K$ and $\beta_1, ..., \beta_K$ are beta calibration parameters, and for each beta component $\omega_k = (\omega_{k1}, ..., \omega_{kM})$ comprises the beta component-specific set of component model weights. The pdf representation of the method is

$$f_{\text{BM}_k}(y) = \sum_{k=1}^{K} w_k (\sum_{m=1}^{M} \omega_{km} f_m(y)\Big) b_{\alpha,\beta}\Big(\sum_{m=1}^{M} \omega_{km} F_m(y)\Big). \tag{8}$$

Finite beta mixture with equally weighted ensemble (EW-BM$_k$)

The EW-BM$_k$ uses a finite beta mixture combination formula to combine an equally-weighted ensemble as follows

$$F_{\text{EW-BM}_k}(y) = \sum_{k=1}^{K} w_k B_{\alpha,\beta}\Big(\sum_{m=1}^{M} \frac{1}{M} F_m(y)\Big), \tag{9}$$

where the vector $w_1, ..., w_K$ comprises the beta mixture weights and $\alpha_1, ..., \alpha_K$ and $\beta_1, ..., \beta_K$ are beta calibration parameters.

$$f_{\text{EW-BM}_k}(y) = \sum_{k=1}^{K} w_k (\sum_{m=1}^{M} \frac{1}{M} f_m(y)\Big) b_{\alpha,\beta}\Big(\sum_{m=1}^{M} \frac{1}{M} F_m(y)\Big). \tag{10}$$

Cross Validation and Training Process

The 2016/2017, 2017/2018, 2018/2019 seasons are selected as the test seasons. For the mixture methods, BMC$_k$ and EW-BMC$_k$, the leave-one-season-out cross validation is used to select the number of beta mixture component k. For each test season, all the seasons preceding the test season are used for the leave-one-season-out cross validation (i.e., if there are N seasons up until the test season, then $N-1$ seasons are used in the leave-one-season-out cross validation with $N-2$ seasons as training seasons and each one of the $N-1$ seasons is the validation season). The mean validation log scores are calculated across all $N-1$ seasons, and one lowest k with the mean validation log scores within one standard deviation of all methods' mean validation log scores is selected for BMC$_k$ and EW-BMC$_k$. We did not simply pick the methods with lowest mean validation log scores in order to take into account model complexity (a less complex model is preferred with the mean validation log score is not much worse compared to a more complex model).

The four methods (BLP, EW-BLP, selected BMC$_k$, selected EW-BMC$_k$) are trained all the seasons preceding each test season and the mean log scores are calculated across all week,locations, training seasons. For EW and TLP, the first does not need training and we use the FSN-TW ensemble's estimated parameters for the latter. The estimated parameters are applied to build the ensembles for the test season and the mean log scores are calculated across all week and locations for all three test seasons.

Log scores

Cross-validated mean log scores for BMC_k and EW-BMC_k

Table 1: Test season 2016/2017

Target	Model Name	Mean train log score	Mean validation log score
1 wk ahead	BMC2	-2.432	-2.495
1 wk ahead	BMC3	-2.422	-2.499
1 wk ahead	BMC4	-2.416	-2.497
1 wk ahead	BMC5	-2.407	-2.501
1 wk ahead	EW_BMC2	-2.494	-2.500
1 wk ahead	EW_BMC3	-2.494	-2.501
1 wk ahead	EW_BMC4	-2.494	-2.502
1 wk ahead	EW_BMC5	-2.494	-2.503
2 wk ahead	BMC2	-2.674	-2.744
2 wk ahead	BMC3	-2.664	-2.755
2 wk ahead	BMC4	-2.653	-2.758
2 wk ahead	BMC5	-2.650	-2.763
2 wk ahead	EW_BMC2	-2.747	-2.763
2 wk ahead	EW_BMC3	-2.746	-2.765
2 wk ahead	EW_BMC4	-2.745	-2.767
2 wk ahead	EW_BMC5	-2.745	-2.767
3 wk ahead	BMC2	-2.837	-2.945
3 wk ahead	BMC3	-2.820	-2.948
3 wk ahead	BMC4	-2.813	-2.953
3 wk ahead	BMC5	-2.801	-2.974
3 wk ahead	EW_BMC2	-2.898	-2.916
3 wk ahead	EW_BMC3	-2.897	-2.916
3 wk ahead	EW_BMC4	-2.897	-2.917
3 wk ahead	EW_BMC5	-2.896	-2.917
4 wk ahead	BMC2	-2.952	-3.077
4 wk ahead	BMC3	-2.942	-3.088
4 wk ahead	BMC4	-2.930	-3.103
4 wk ahead	BMC5	-2.923	-3.109
4 wk ahead	EW_BMC2	-3.018	-3.033
4 wk ahead	EW_BMC3	-3.017	-3.035
4 wk ahead	EW_BMC4	-3.016	-3.036
4 wk ahead	EW_BMC5	-3.015	-3.036

- BMC2 and EM-BMC2 have the lowest mean validation log scores and are selected for training for all targets.
- For 1 and 2 week ahead targets, BMC_k outperform EW-BMC_k with the same k, but the reverse is true for 3 and 4 week ahead targets.
- We start to see some evidence of overfitting in BMC_k compared to EW-BMC_k for 3 and 4 week ahead targets (BMC_k's train log scores are higher, but the mean validation log scores are worse than EW-BMC_k's).

Table 2: Test season 2017/2018

Target	Model Name	Mean train log score	Mean validation log score
1 wk ahead	BMC2	-2.450	-2.495
1 wk ahead	BMC3	-2.442	-2.501
1 wk ahead	BMC4	-2.435	-2.502
1 wk ahead	BMC5	-2.430	-2.507
1 wk ahead	EW_BMC2	-2.509	-2.514
1 wk ahead	EW_BMC3	-2.509	-2.514
1 wk ahead	EW_BMC4	-2.509	-2.514
1 wk ahead	EW_BMC5	-2.508	-2.516
2 wk ahead	BMC2	-2.697	-2.755
2 wk ahead	BMC3	-2.688	-2.754
2 wk ahead	BMC4	-2.680	-2.763
2 wk ahead	BMC5	-2.674	-2.770
2 wk ahead	EW_BMC2	-2.767	-2.780
2 wk ahead	EW_BMC3	-2.767	-2.782
2 wk ahead	EW_BMC4	-2.766	-2.782
2 wk ahead	EW_BMC5	-2.766	-2.783
3 wk ahead	BMC2	-2.869	-2.957
3 wk ahead	BMC3	-2.857	-2.964
3 wk ahead	BMC4	-2.846	-2.970
3 wk ahead	BMC5	-2.841	-2.981
3 wk ahead	EW_BMC2	-2.929	-2.944
3 wk ahead	EW_BMC3	-2.928	-2.946
3 wk ahead	EW_BMC4	-2.927	-2.947
3 wk ahead	EW_BMC5	-2.926	-2.948
4 wk ahead	BMC2	-2.986	-3.093
4 wk ahead	BMC3	-2.967	-3.087
4 wk ahead	BMC4	-2.960	-3.105
4 wk ahead	BMC5	-2.954	-3.108
4 wk ahead	EW_BMC2	-3.045	-3.062
4 wk ahead	EW_BMC3	-3.045	-3.062
4 wk ahead	EW_BMC4	-3.042	-3.062
4 wk ahead	EW_BMC5	-3.043	-3.062

- BMC2 and EM-BMC2 have the lowest mean validation log scores and are selected for training for all targets.
- For 1 and 2 week ahead targets, BMC$_k$ outperform EW-BMC$_k$ with the same k, but the reverse is true for 3 and 4 week ahead targets.
- We start to see some evidence of overfitting in BMC$_k$ compared to EW-BMC$_k$ for 3 and 4 week ahead targets (BMC$_k$'s train log scores are higher, but the mean validation log scores are worse than EW-BMC$_k$'s).

Table 3: Test season 2018/2019

Target	Model Name	Mean train log score	Mean validation log score
1 wk ahead	BMC2	-2.474	-2.512
1 wk ahead	BMC3	-2.466	-2.517
1 wk ahead	BMC4	-2.460	-2.525
1 wk ahead	BMC5	-2.456	-2.526
1 wk ahead	EW_BMC2	-2.542	-2.546
1 wk ahead	EW_BMC3	-2.542	-2.547
1 wk ahead	EW_BMC4	-2.542	-2.548
1 wk ahead	EW_BMC5	-2.542	-2.547
2 wk ahead	BMC2	-2.745	-2.798
2 wk ahead	BMC3	-2.739	-2.793
2 wk ahead	BMC4	-2.732	-2.807
2 wk ahead	BMC5	-2.725	-2.805
2 wk ahead	EW_BMC2	-2.829	-2.847
2 wk ahead	EW_BMC3	-2.828	-2.846
2 wk ahead	EW_BMC4	-2.828	-2.848
2 wk ahead	EW_BMC5	-2.828	-2.848
3 wk ahead	BMC2	-2.924	-2.994
3 wk ahead	BMC3	-2.918	-3.001
3 wk ahead	BMC4	-2.911	-3.003
3 wk ahead	BMC5	-2.902	-3.012
3 wk ahead	EW_BMC2	-3.003	-3.032
3 wk ahead	EW_BMC3	-3.002	-3.030
3 wk ahead	EW_BMC4	-3.001	-3.035
3 wk ahead	EW_BMC5	-3.001	-3.032
4 wk ahead	BMC2	-3.047	-3.128
4 wk ahead	BMC3	-3.034	-3.141
4 wk ahead	BMC4	-3.028	-3.132
4 wk ahead	BMC5	-3.021	-3.151
4 wk ahead	EW_BMC2	-3.122	-3.156
4 wk ahead	EW_BMC3	-3.121	-3.158
4 wk ahead	EW_BMC4	-3.121	-3.157
4 wk ahead	EW_BMC5	-3.119	-3.168

- BMC2 is selected for all targets. EM-BMC2 are selected for training for 1-3 week ahead targets and EM-BMC5 is selected for the 4 week ahead target.
- Similar to the previous test season, for 1 and 2 week ahead targets, BMC_k outperform EW-BMC_k with the same k, but the reverse is true for 3 and 4 week ahead targets. We also start to see some evidence of overfitting in BMC_k compared to EW-BMC_k for 3 and 4 week ahead targets (BMC_k's train log scores are higher, but the mean validation log scores are worse than EW-BMC_k's).

Mean train and test log scores

Mean train and test log scores by target-season

Table 4: Test season 2016/2017

Target	Model Name	Train log score	Test log score	Test Season
1 wk ahead	EW	-2.846	-2.841	2016/2017
1 wk ahead	TLP	-2.651	-2.619	2016/2017
1 wk ahead	BLP	-2.445	-2.565	2016/2017
1 wk ahead	BMC2	-2.435	-2.569	2016/2017
1 wk ahead	EW_BLP	-2.495	-2.602	2016/2017
1 wk ahead	EW_BMC2	-2.495	-2.603	2016/2017
2 wk ahead	EW	-3.067	-3.075	2016/2017
2 wk ahead	TLP	-2.896	-2.890	2016/2017
2 wk ahead	BLP	-2.691	-2.854	2016/2017
2 wk ahead	BMC2	-2.677	-2.858	2016/2017
2 wk ahead	EW_BLP	-2.751	-2.910	2016/2017
2 wk ahead	EW_BMC2	-2.748	-2.901	2016/2017
3 wk ahead	EW	-3.222	-3.261	2016/2017
3 wk ahead	TLP	-3.087	-3.115	2016/2017
3 wk ahead	BLP	-2.863	-3.099	2016/2017
3 wk ahead	BMC2	-2.852	-3.106	2016/2017
3 wk ahead	EW_BLP	-2.901	-3.131	2016/2017
3 wk ahead	EW_BMC2	-2.899	-3.123	2016/2017
4 wk ahead	EW	-3.331	-3.357	2016/2017
4 wk ahead	TLP	-3.222	-3.208	2016/2017
4 wk ahead	BLP	-2.987	-3.217	2016/2017
4 wk ahead	BMC2	-2.961	-3.236	2016/2017
4 wk ahead	EW_BLP	-3.019	-3.231	2016/2017
4 wk ahead	EW_BMC2	-3.019	-3.231	2016/2017

- BLP outperforms other methods for 1-3 week ahead targets, exceot for the 4 week ahead target where TLP outperforms.

Table 5: Test season 2017/2018

Target	Model Name	Train log score	Test log score	Test Season
1 wk ahead	EW	-2.832	-2.989	2017/2018
1 wk ahead	TLP	-2.643	-2.693	2017/2018
1 wk ahead	BLP	-2.461	-2.643	2017/2018
1 wk ahead	BMC2	-2.453	-2.662	2017/2018
1 wk ahead	EW_BLP	-2.510	-2.783	2017/2018
1 wk ahead	EW_BMC2	-2.510	-2.786	2017/2018
2 wk ahead	EW	-3.042	-3.349	2017/2018
2 wk ahead	TLP	-2.871	-3.165	2017/2018
2 wk ahead	BLP	-2.713	-3.132	2017/2018
2 wk ahead	BMC2	-2.703	-3.136	2017/2018
2 wk ahead	EW_BLP	-2.773	-3.330	2017/2018
2 wk ahead	EW_BMC2	-2.769	-3.310	2017/2018
3 wk ahead	EW	-3.198	-3.540	2017/2018
3 wk ahead	TLP	-3.063	-3.395	2017/2018
3 wk ahead	BLP	-2.895	-3.447	2017/2018
3 wk ahead	BMC2	-2.881	-3.390	2017/2018
3 wk ahead	EW_BLP	-2.933	-3.617	2017/2018
3 wk ahead	EW_BMC2	-2.931	-3.623	2017/2018
4 wk ahead	EW	-3.306	-3.646	2017/2018
4 wk ahead	TLP	-3.193	-3.515	2017/2018
4 wk ahead	BLP	-3.017	-3.652	2017/2018
4 wk ahead	BMC2	-2.996	-3.568	2017/2018
4 wk ahead	EW_BLP	-3.049	-3.776	2017/2018
4 wk ahead	EW_BMC5	-3.042	-3.888	2017/2018

- BLP outperforms other methods for 1-2 week ahead targets, BMC2 outperforms for the 3 week ahead target, and TLP outperform for the 4 week ahead target.

Table 6: Test season 2018/2019

Target	Model Name	Train log score	Test log score	Test Season
1 wk ahead	EW	-2.843	-2.902	2018/2019
1 wk ahead	TLP	-2.647	-2.642	2018/2019
1 wk ahead	BLP	-2.476	-2.516	2018/2019
1 wk ahead	BMC2	-2.470	-2.509	2018/2019
1 wk ahead	EW_BLP	-2.533	-2.603	2018/2019
1 wk ahead	EW_BMC2	-2.533	-2.603	2018/2019
2 wk ahead	EW	-3.061	-3.229	2018/2019
2 wk ahead	TLP	-2.891	-3.002	2018/2019
2 wk ahead	BLP	-2.747	-2.870	2018/2019
2 wk ahead	BMC2	-2.735	-2.872	2018/2019
2 wk ahead	EW_BLP	-2.819	-3.015	2018/2019
2 wk ahead	EW_BMC2	-2.814	-3.020	2018/2019
3 wk ahead	EW	-3.219	-3.399	2018/2019
3 wk ahead	TLP	-3.086	-3.206	2018/2019
3 wk ahead	BLP	-2.938	-3.099	2018/2019
3 wk ahead	BMC2	-2.919	-3.077	2018/2019
3 wk ahead	EW_BLP	-2.990	-3.238	2018/2019
3 wk ahead	EW_BMC3	-3.004	-3.231	2018/2019
4 wk ahead	EW	-3.327	-3.502	2018/2019
4 wk ahead	TLP	-3.214	-3.356	2018/2019
4 wk ahead	BLP	-3.067	-3.264	2018/2019
4 wk ahead	BMC2	-3.040	-3.234	2018/2019
4 wk ahead	EW_BLP	-3.109	-3.373	2018/2019
4 wk ahead	EW_BMC2	-3.089	-3.361	2018/2019

- BMC2 outperforms for the 1 and 3-4 week ahead targets and BLP outperforms other methods for the 2 week ahead target.

PIT Histograms

Test season 2016/2017

1 Week Ahead

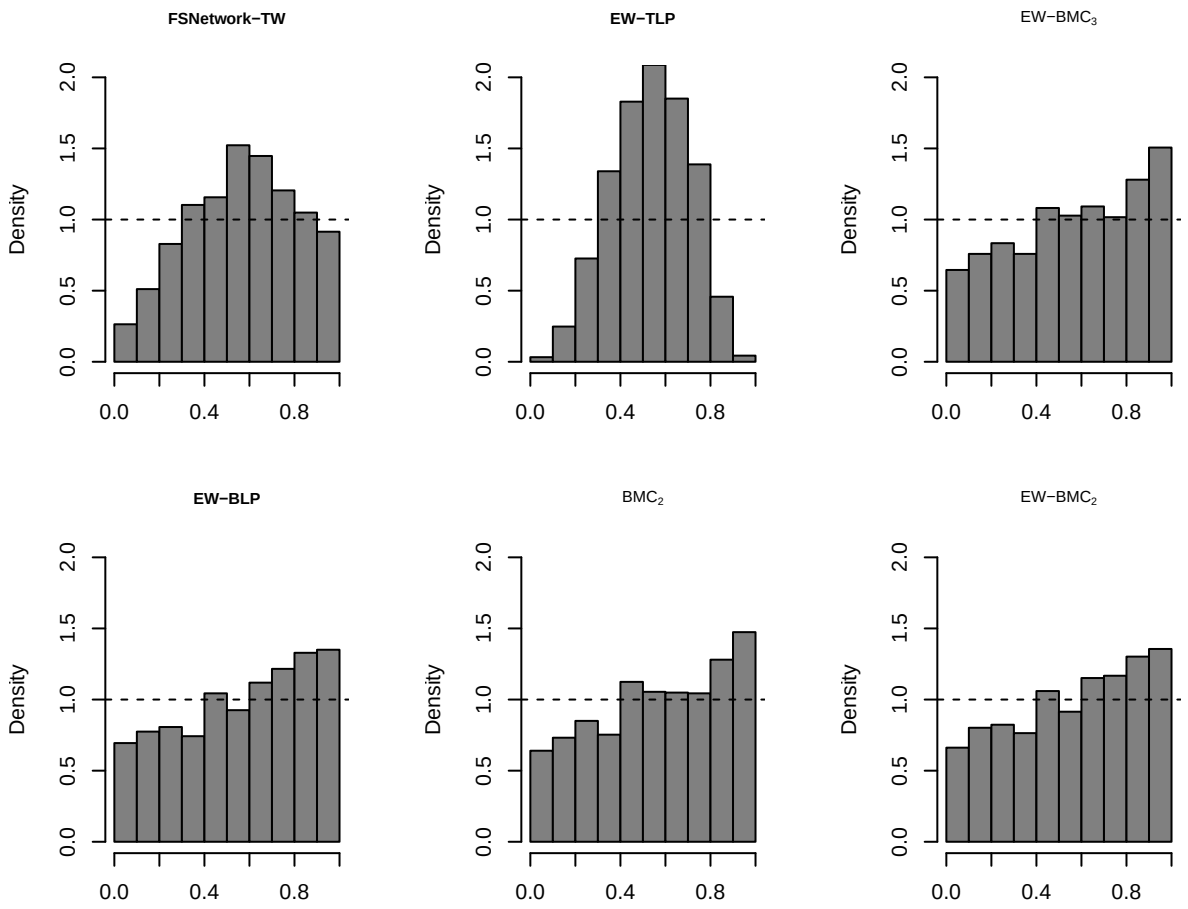


Figure 1: PIT Histograms for Training Seasons

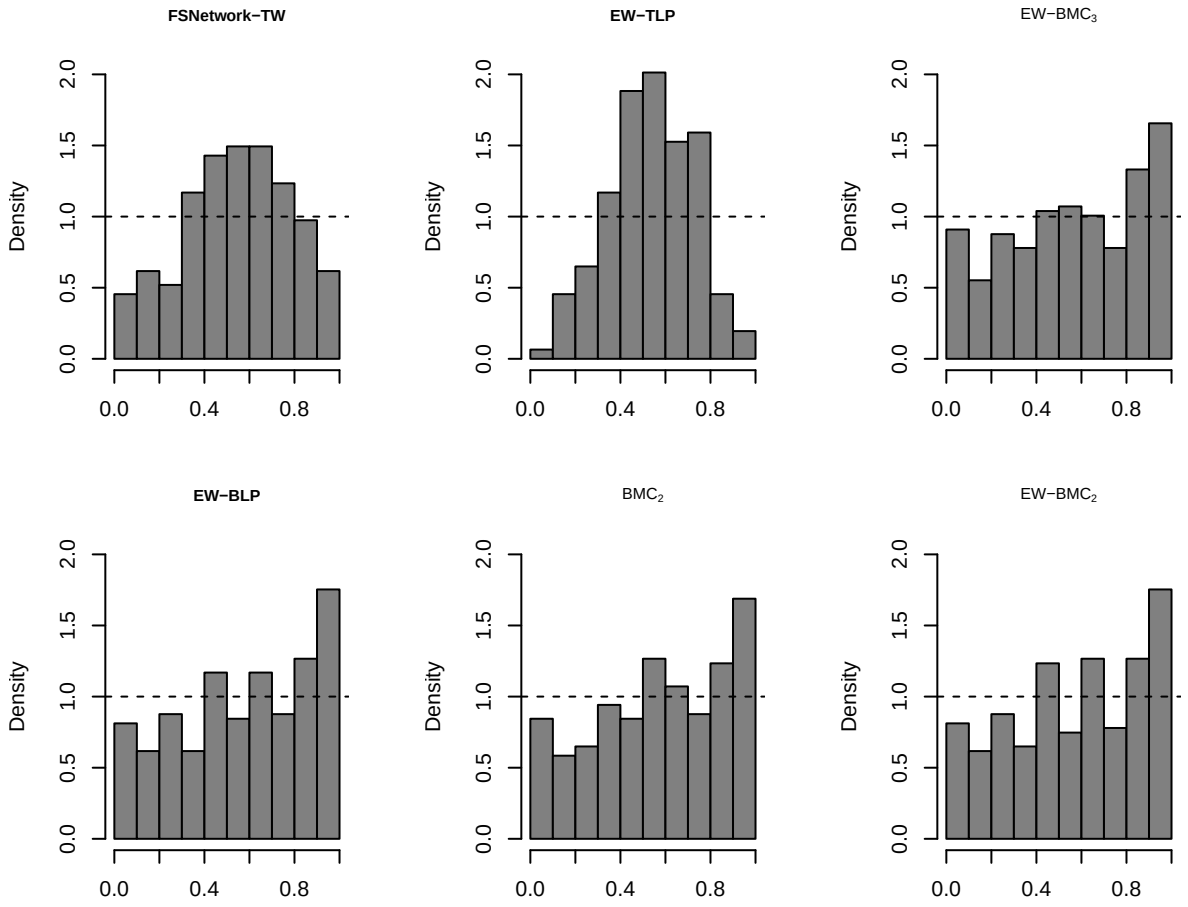


Figure 2: PIT Histograms for Test Season 2016/2017

- There is evidence of bias in the PIT histograms in both the training and test seasons. The BLP, which outperforms other methods, has a more uniform PIT histogram in the test season.
- The training PIT histograms for BMC2, EW-BLP, and EW-BMC2 look more uniform compared to that of BLP, maybe overfitting?

2 Week Ahead

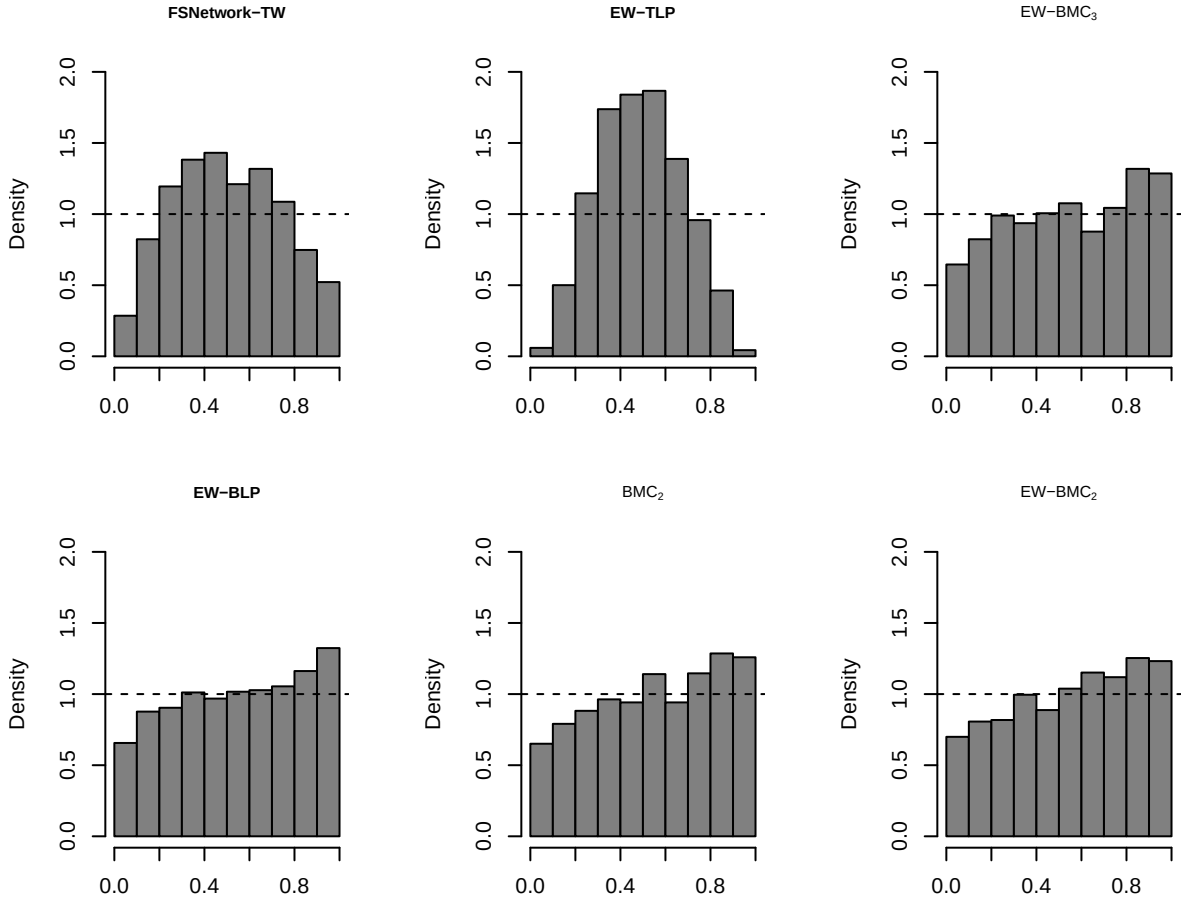


Figure 3: PIT Histograms for Training Seasons

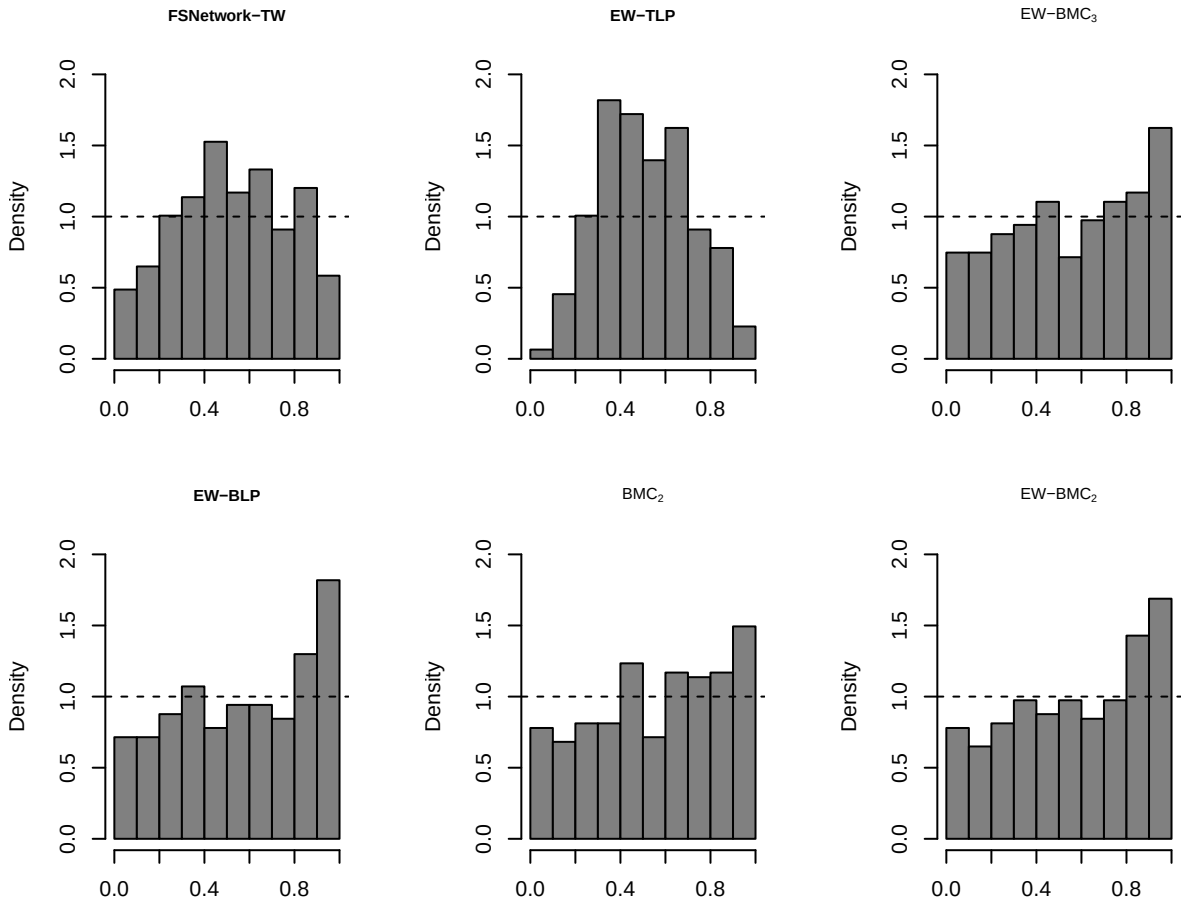


Figure 4: PIT Histograms for Test Season 2016/2017

- There is evidence of some bias in the PIT histograms in both the training and test seasons but less than the previous target. The BLP, which outperforms other methods, has a more uniform PIT histogram in the test season.

3 Week Ahead

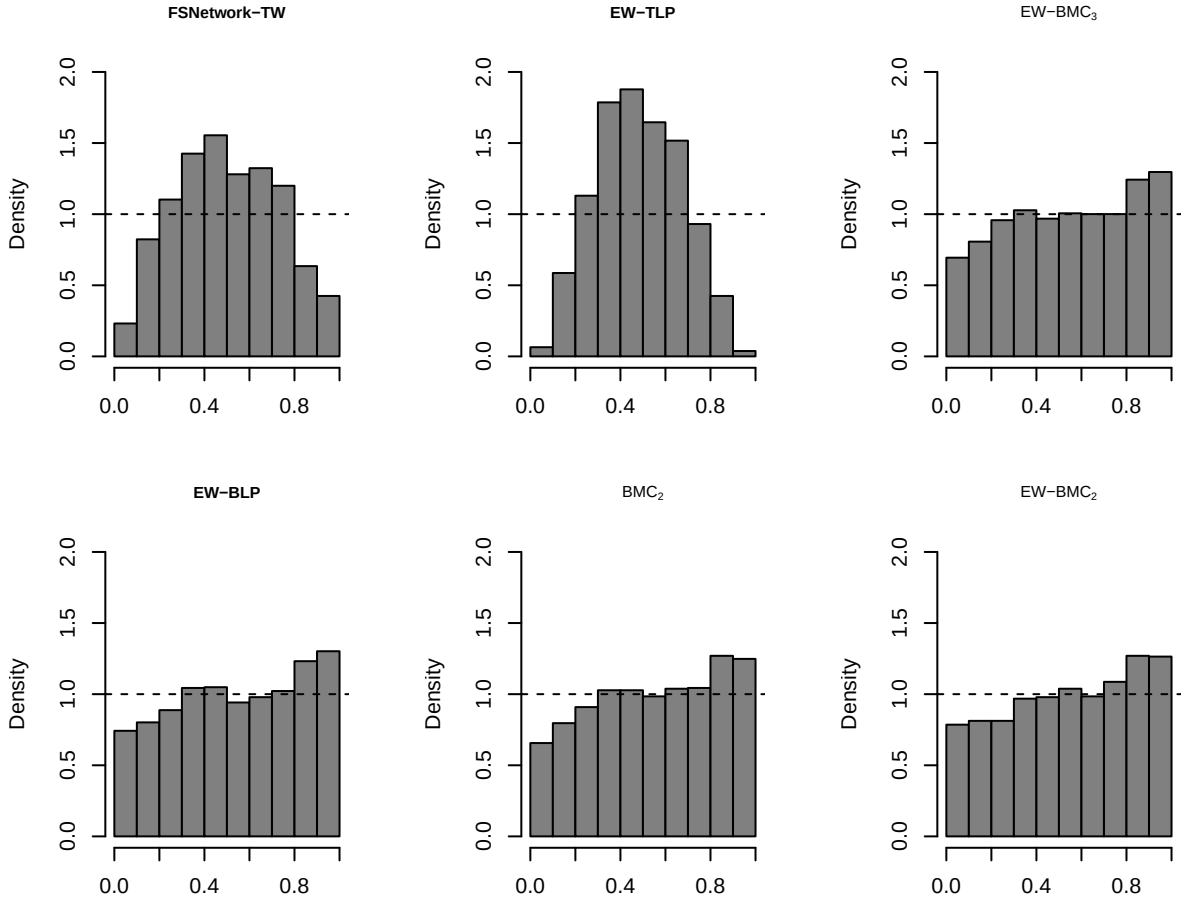


Figure 5: PIT Histograms for Training Seasons

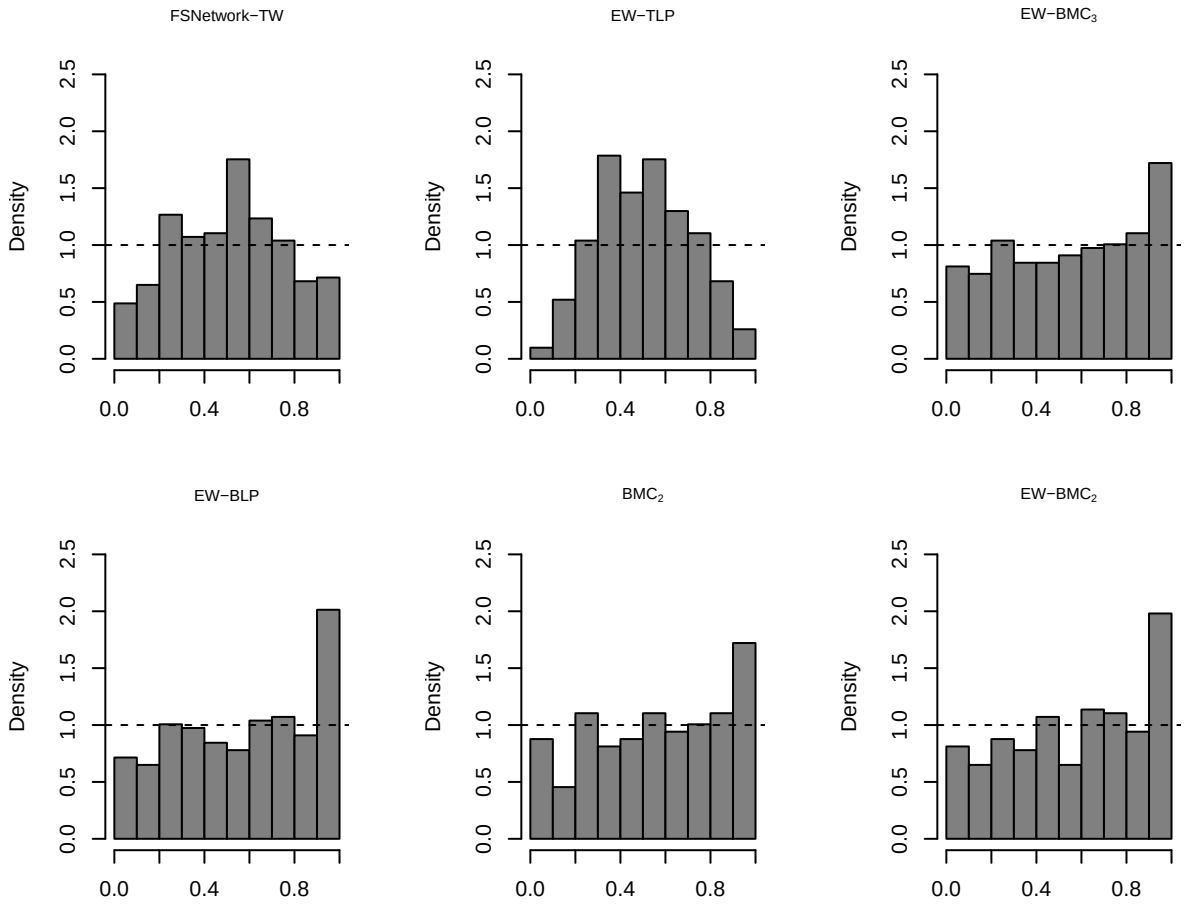


Figure 6: PIT Histograms for Test Season 2016/2017

- There is evidence of some bias in the PIT histograms in both the training and test seasons. The BLP, which outperforms other methods, has a more uniform PIT histogram in the test season.
- There might be some overfitting going on, the train PIT histograms look a lot better than the test PIT histograms.

4 Week Ahead

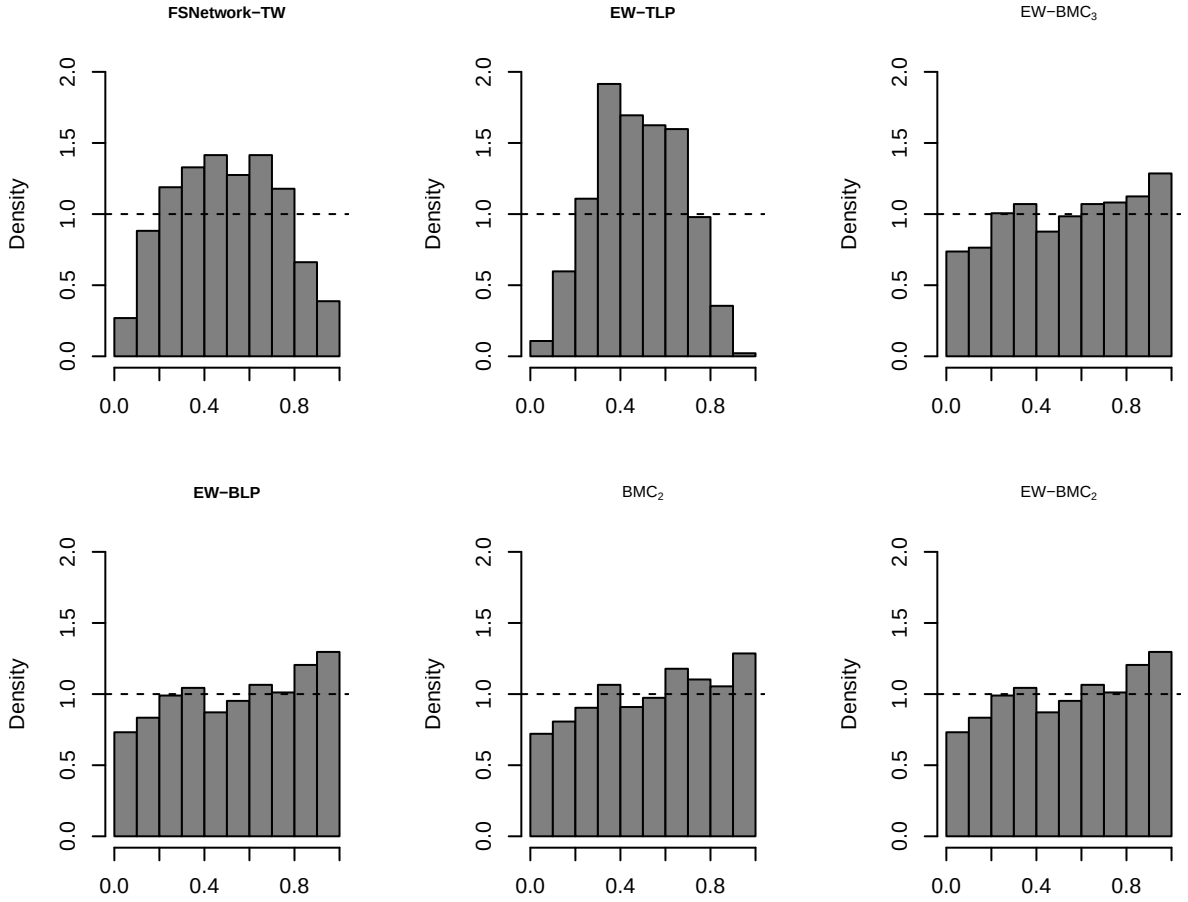


Figure 7: PIT Histograms for Training Seasons

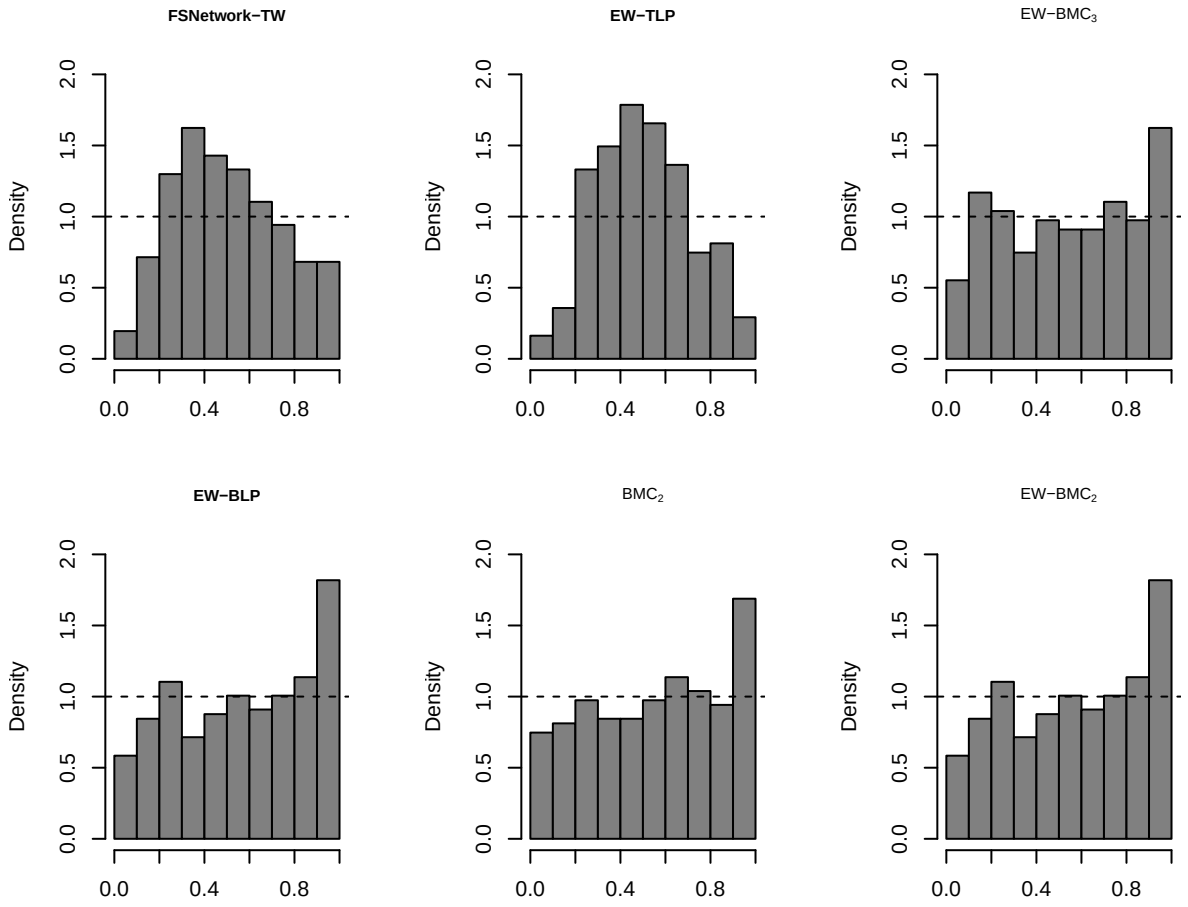


Figure 8: PIT Histograms for Test Season 2016/2017

- There is evidence of a little bias in the PIT histograms in both the training and test seasons.
- The BLP, EW-BLP, BMC2, and EW-BMC2 are relatively well-calibrated in the training seasons which outperforms other methods, has a more uniform PIT histogram in the test season.
- TLP outperforms other methods in terms of mean test log score, but the beta methods seem to have more uniform PIT histograms.

Test season 2017/2018

1 Week Ahead

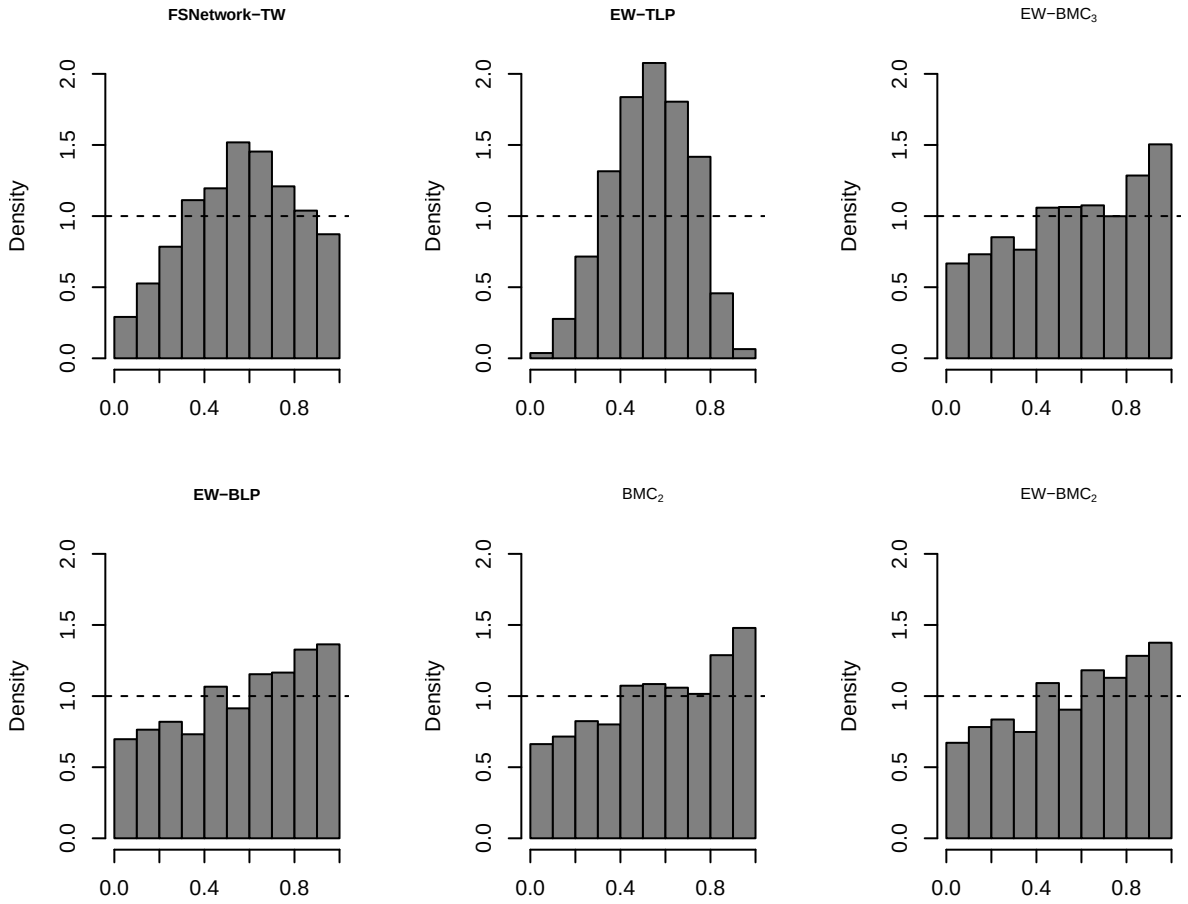


Figure 9: PIT Histograms for Training Seasons

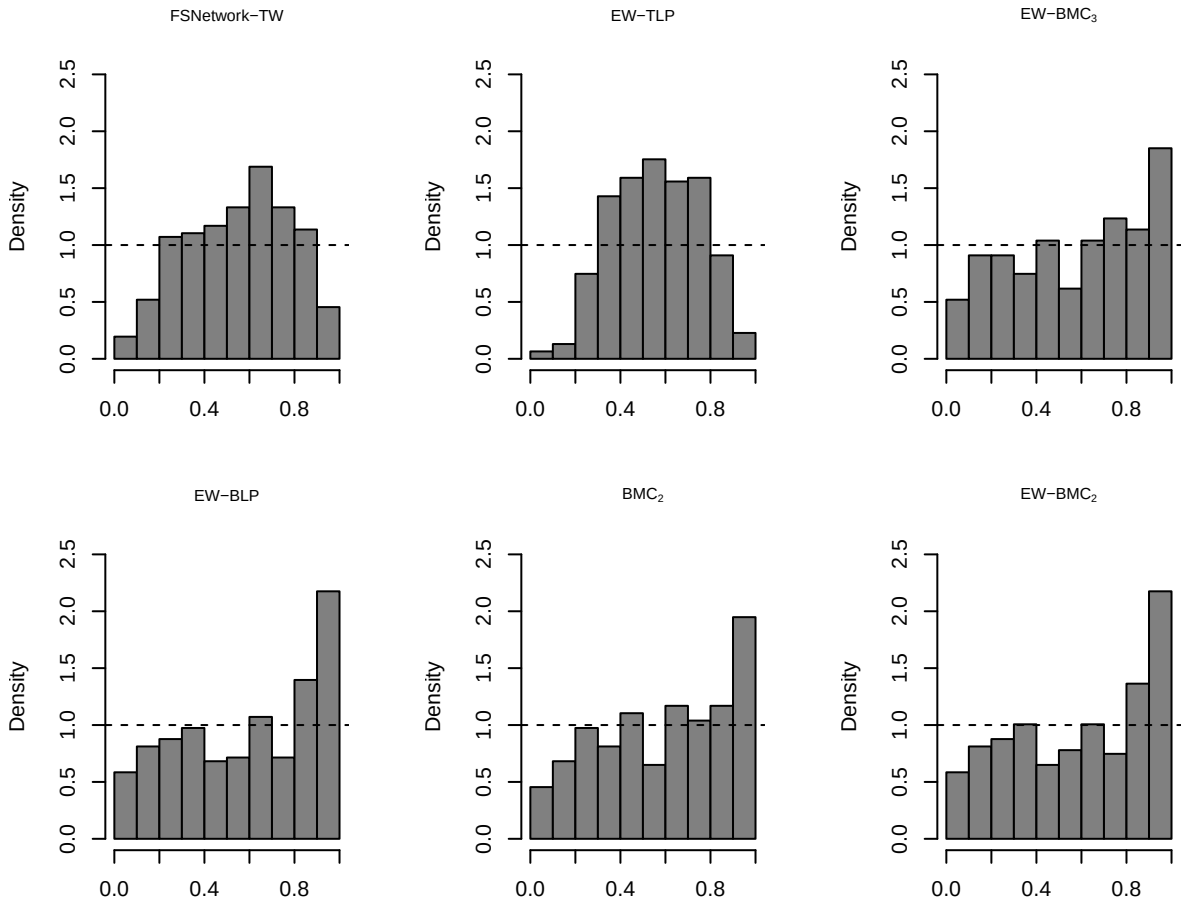


Figure 10: PIT Histograms for Test Season 2017/2018

- There is evidence of some bias in the PIT histograms in both the training and test seasons. The BLP, which outperforms other methods, has a more uniform PIT histogram in the test season, but it is not very calibrated.

2 Week Ahead

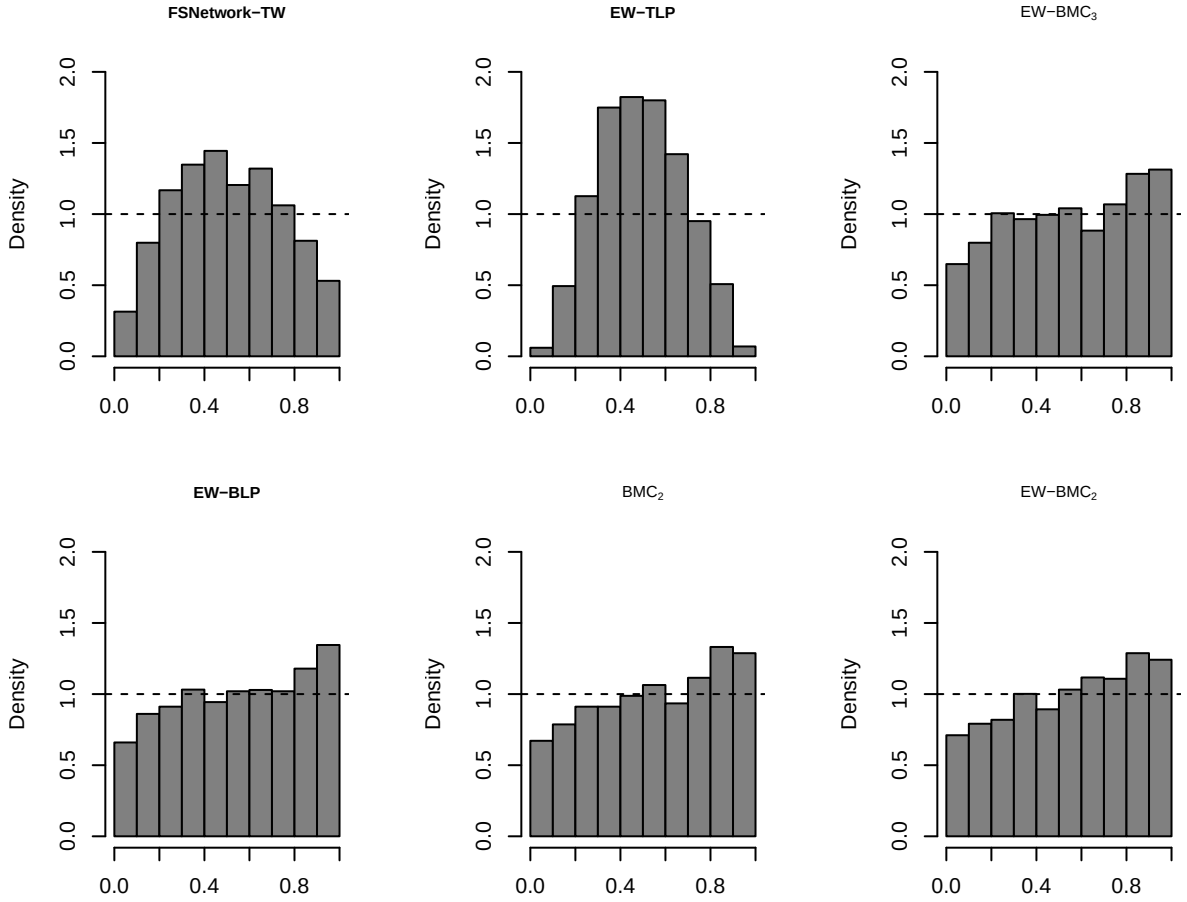


Figure 11: PIT Histograms for Training Seasons

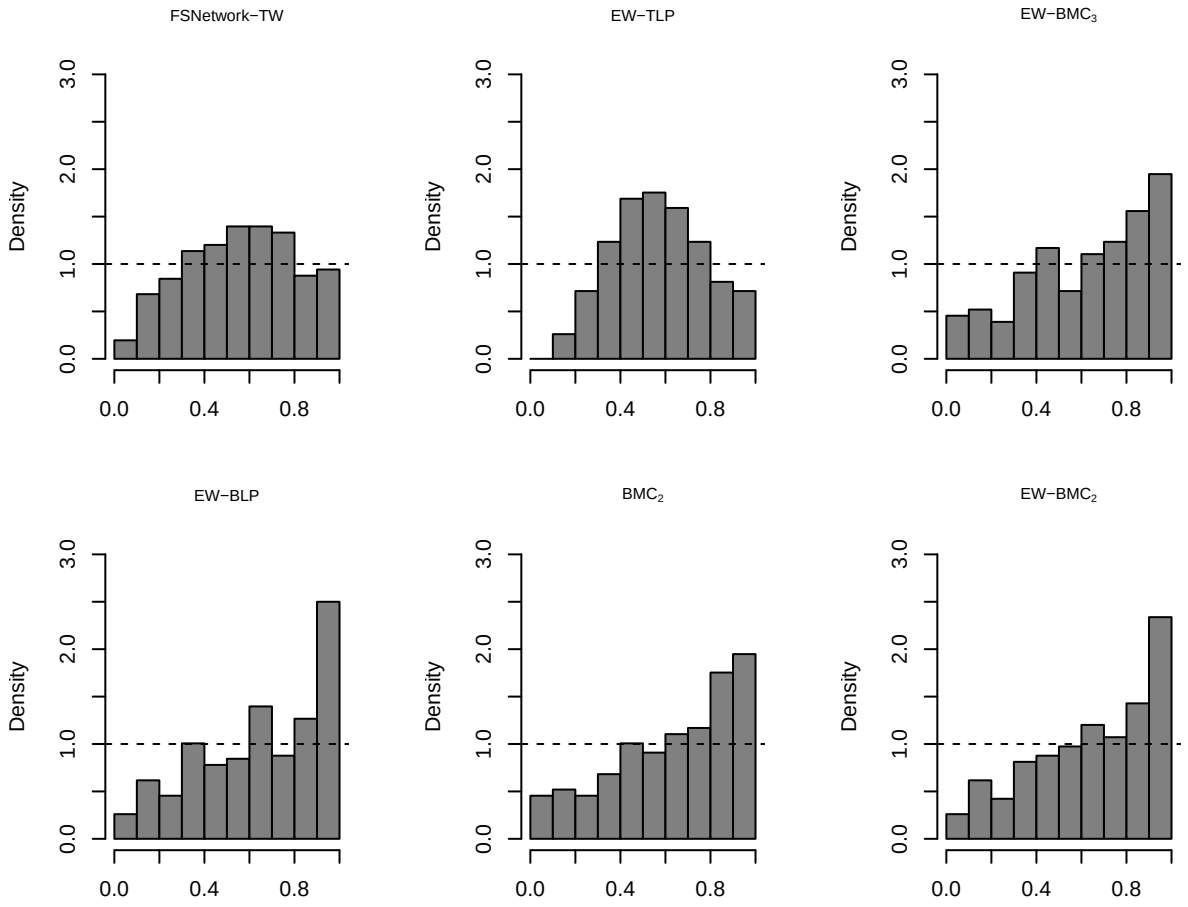


Figure 12: PIT Histograms for Test Season 2017/2018

- There is evidence of some bias in the PIT histograms in both the training and test seasons. Overall the PIT histograms for the beta methods do not look uniform for the test season, despite being relatively well calibrated for the training seasons
- The BLP, which outperforms other methods, does not seem to be more calibrated than the TLP in the test season.

3 Week Ahead

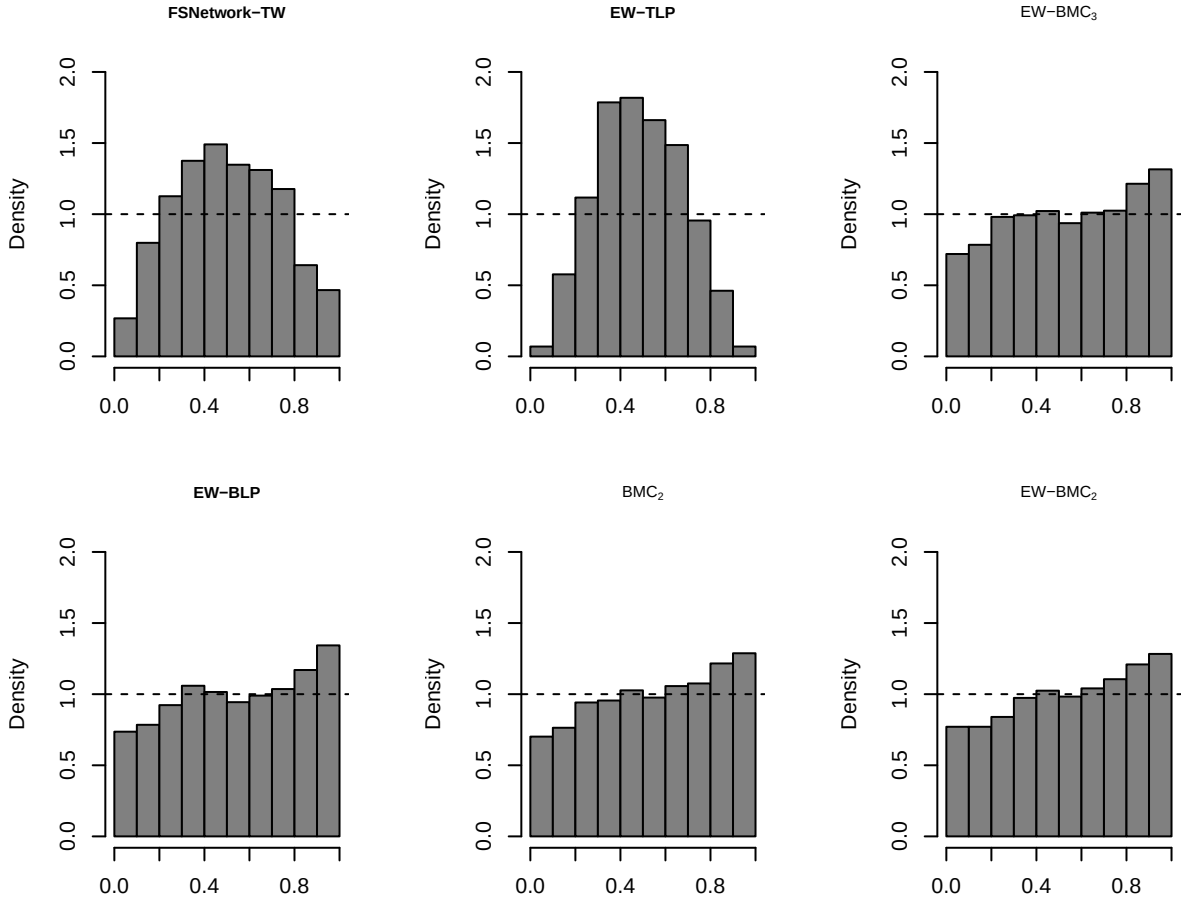


Figure 13: PIT Histograms for Training Seasons

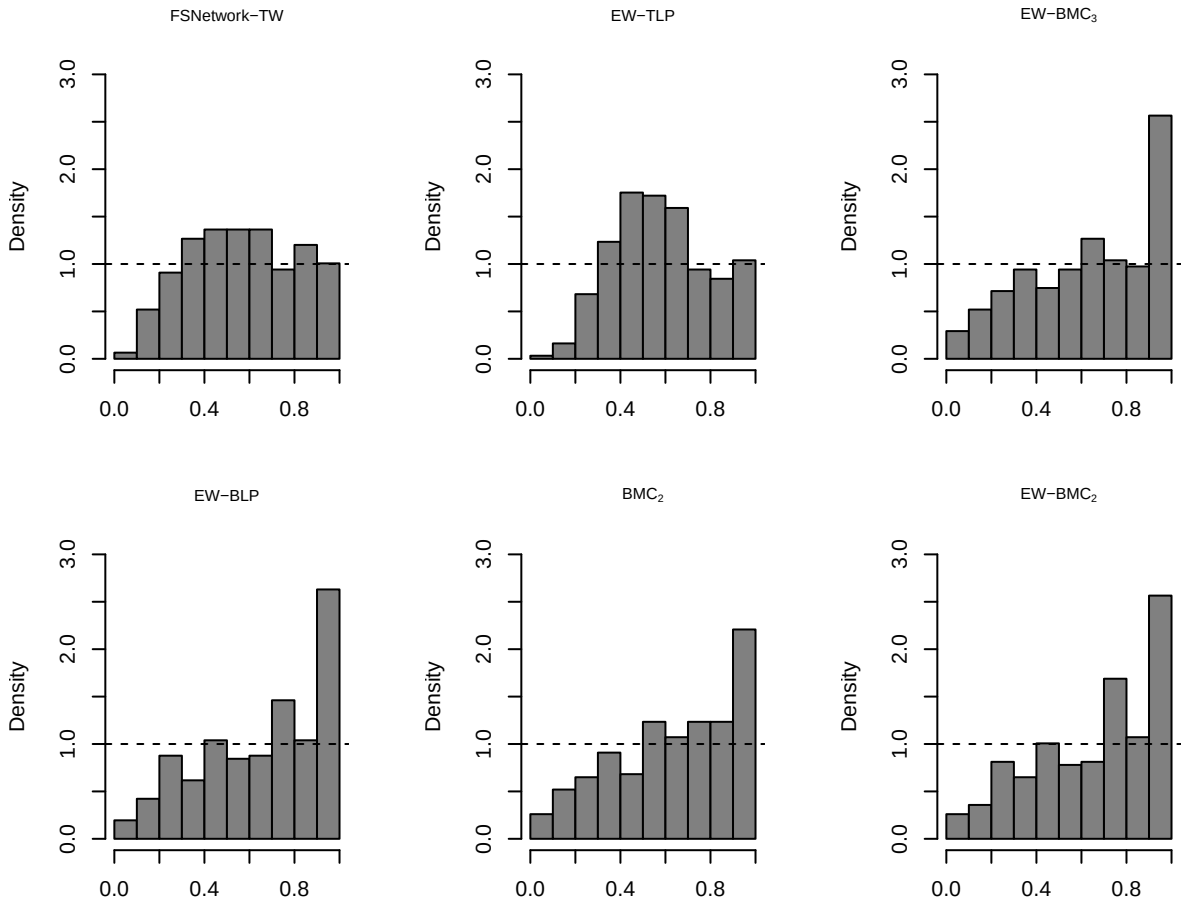


Figure 14: PIT Histograms for Test Season 2017/2018

- We have a similar situation here as in the previous target of the same year, but the tail calibration is much worse.
- BMC2 is the best performing method in terms of mean log score, but again it does not seem more calibrated than TLP (or worse even).

4 Week Ahead

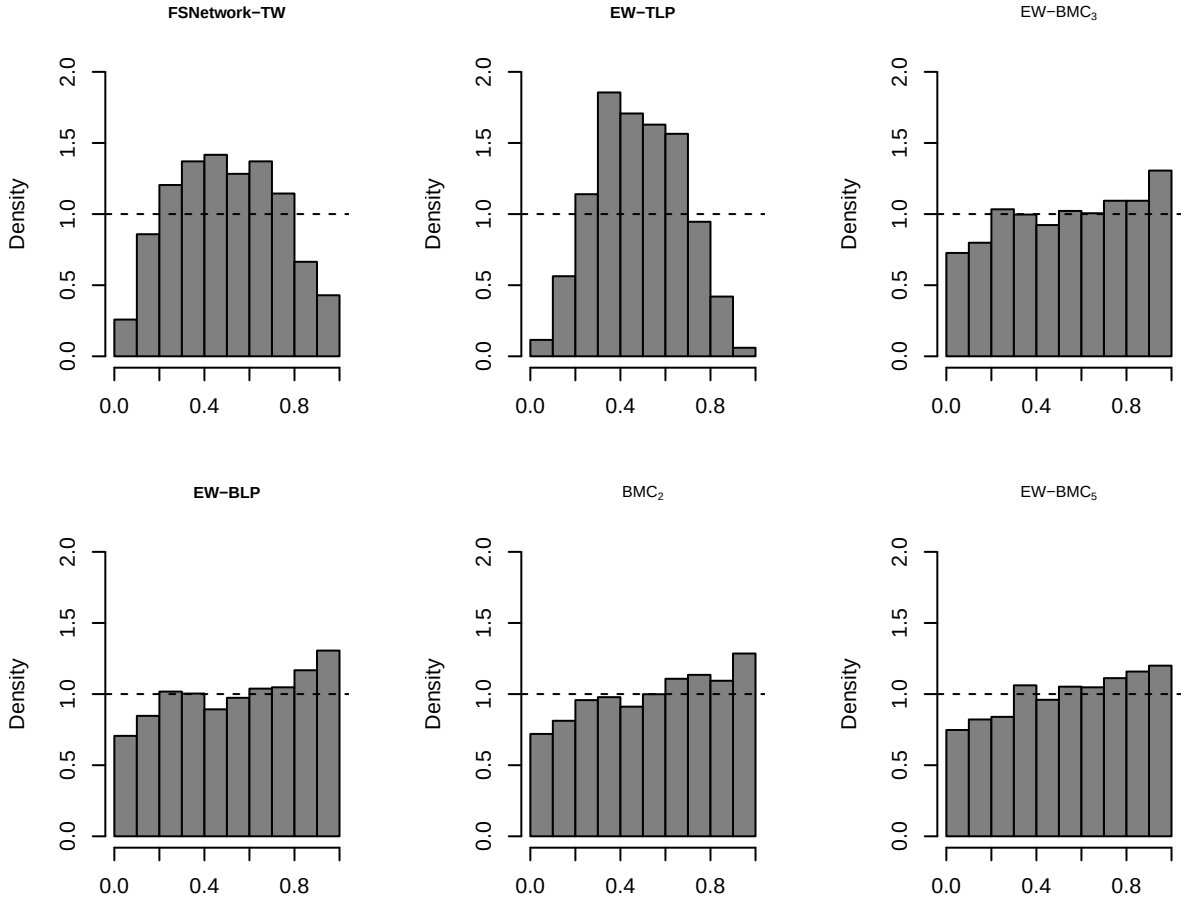


Figure 15: PIT Histograms for Training Seasons

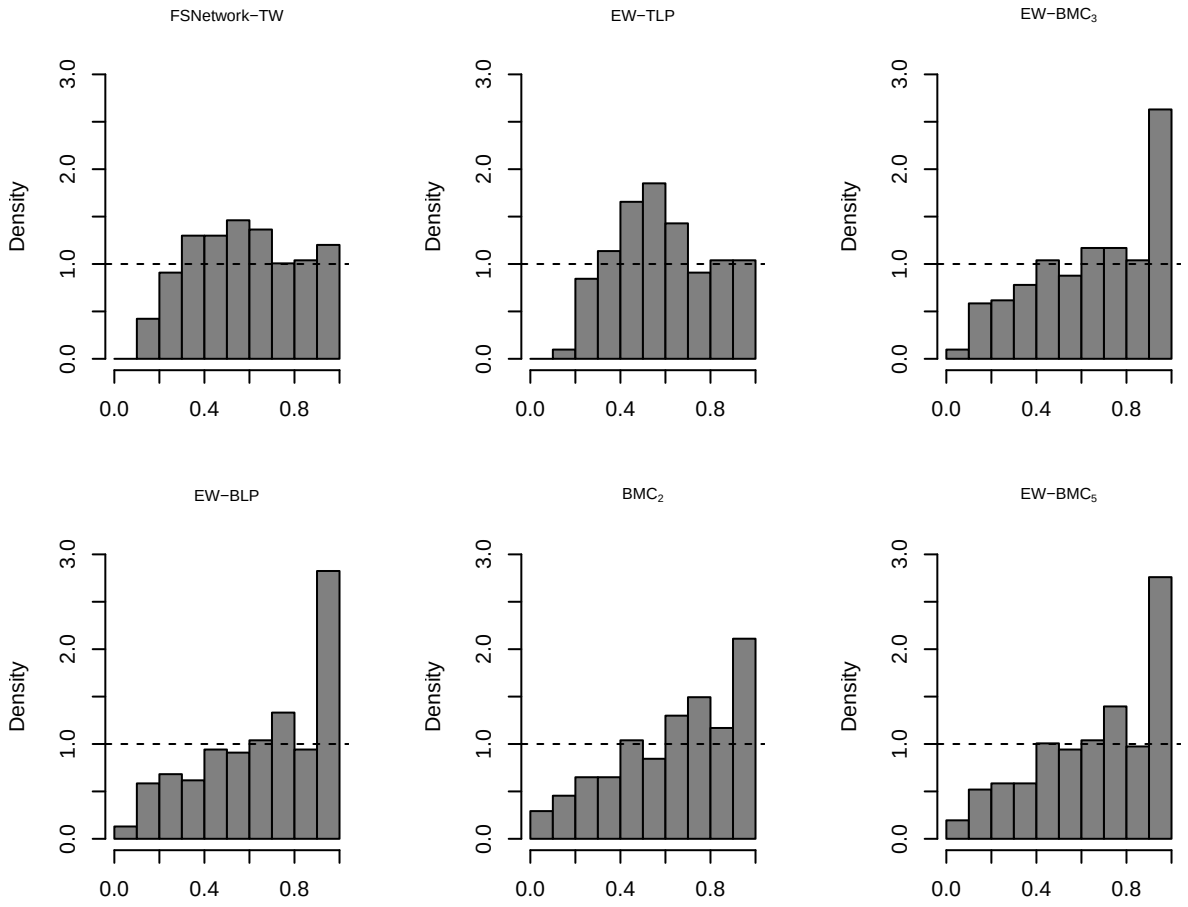


Figure 16: PIT Histograms for Test Season 2017/2018

- PIT histograms for the training season look well calibrated, but very uncalibrated for the test seasons.
- TLP outperforms other methods here in terms of log score, and the PIT histograms agree.
- For this season, it is possible the poor calibration is a result from training seasons being very different from the test season (bad flu season in 2017/2018), so we have a lot of overfitting. This phenomenon is more apparent for 3-4 week ahead targets.

Test season 2018/2019

1 Week Ahead

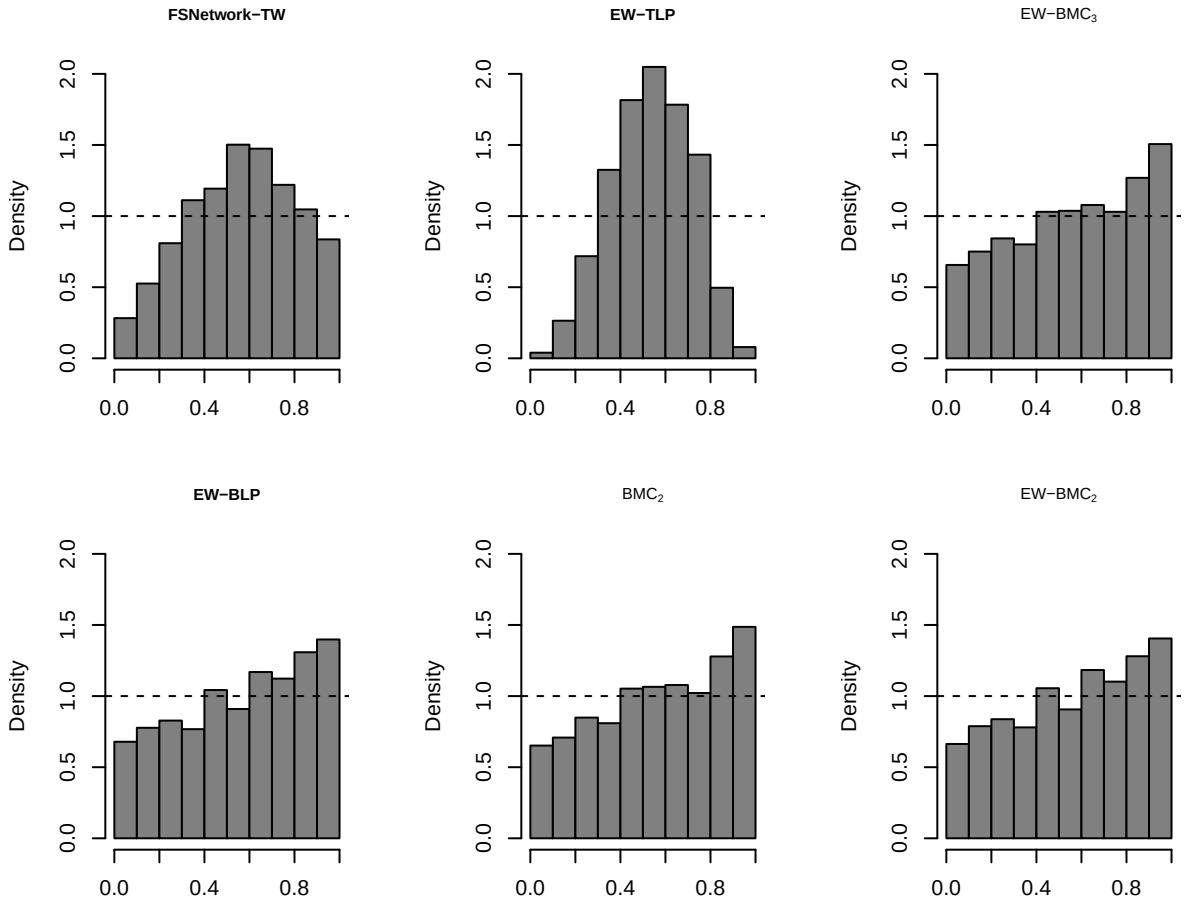


Figure 17: PIT Histograms for Training Seasons

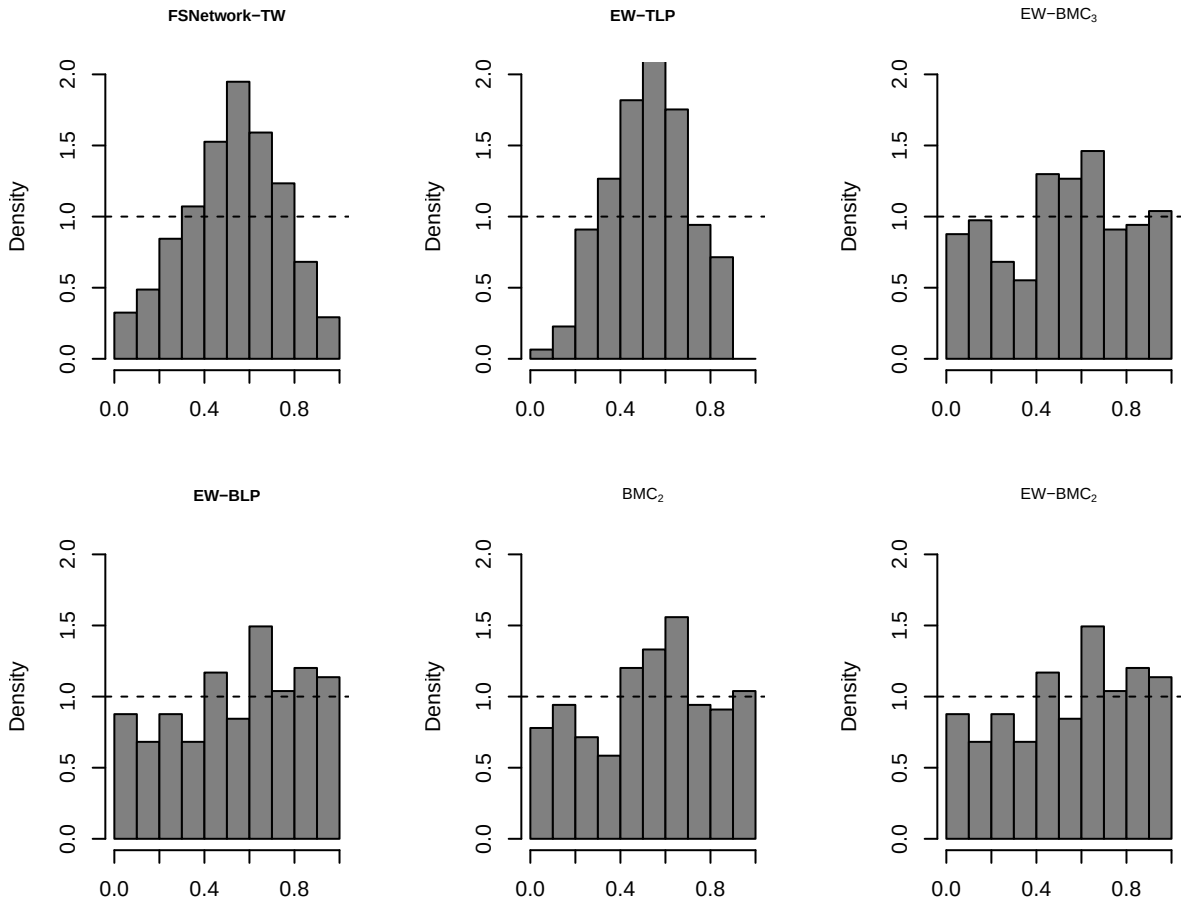


Figure 18: PIT Histograms for Test Season 2018/2019

- There is evidence of some bias in the PIT histograms in the training seasons, but look more calibrated for the test season.
- The BMC2, which outperforms other methods, does not seem to have a more uniform PIT histogram in the test season compared to other beta methods.

2 Week Ahead

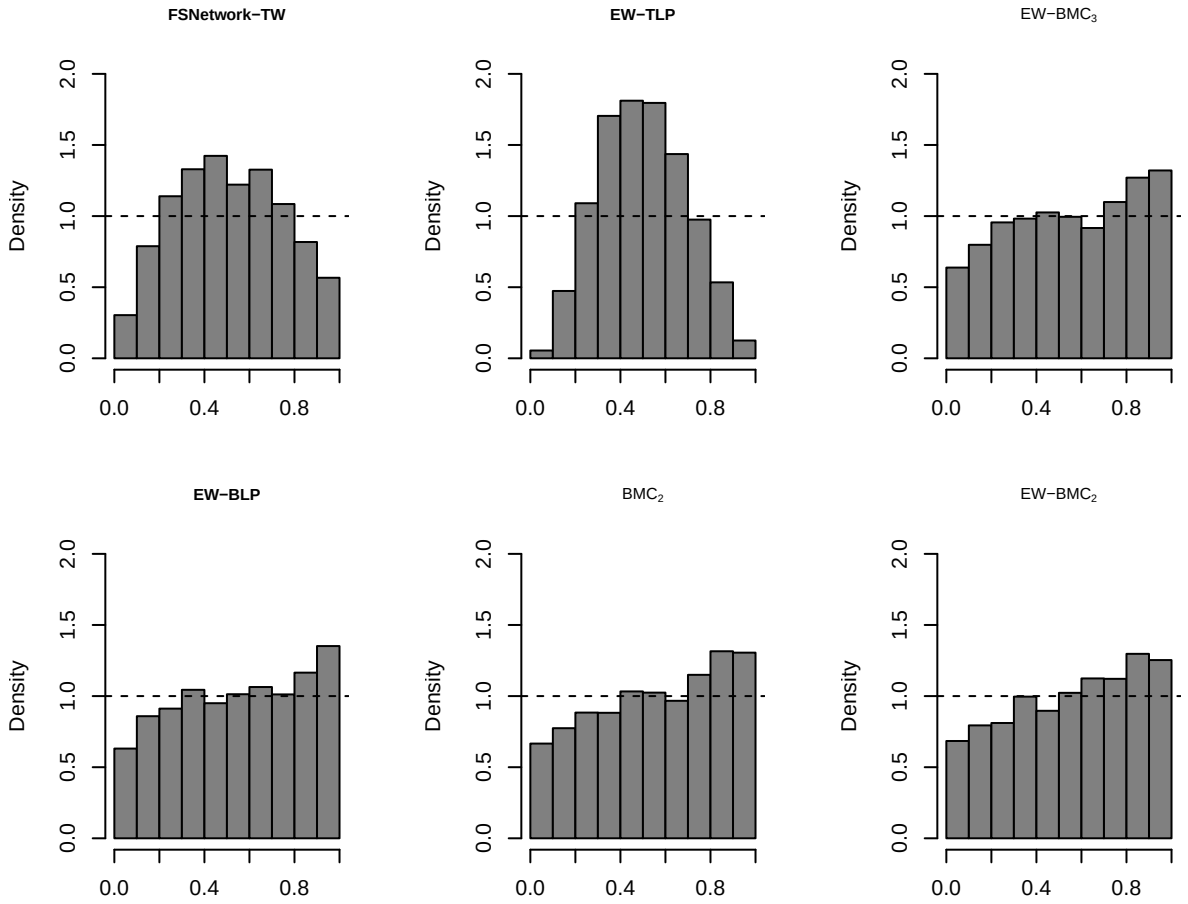


Figure 19: PIT Histograms for Training Seasons

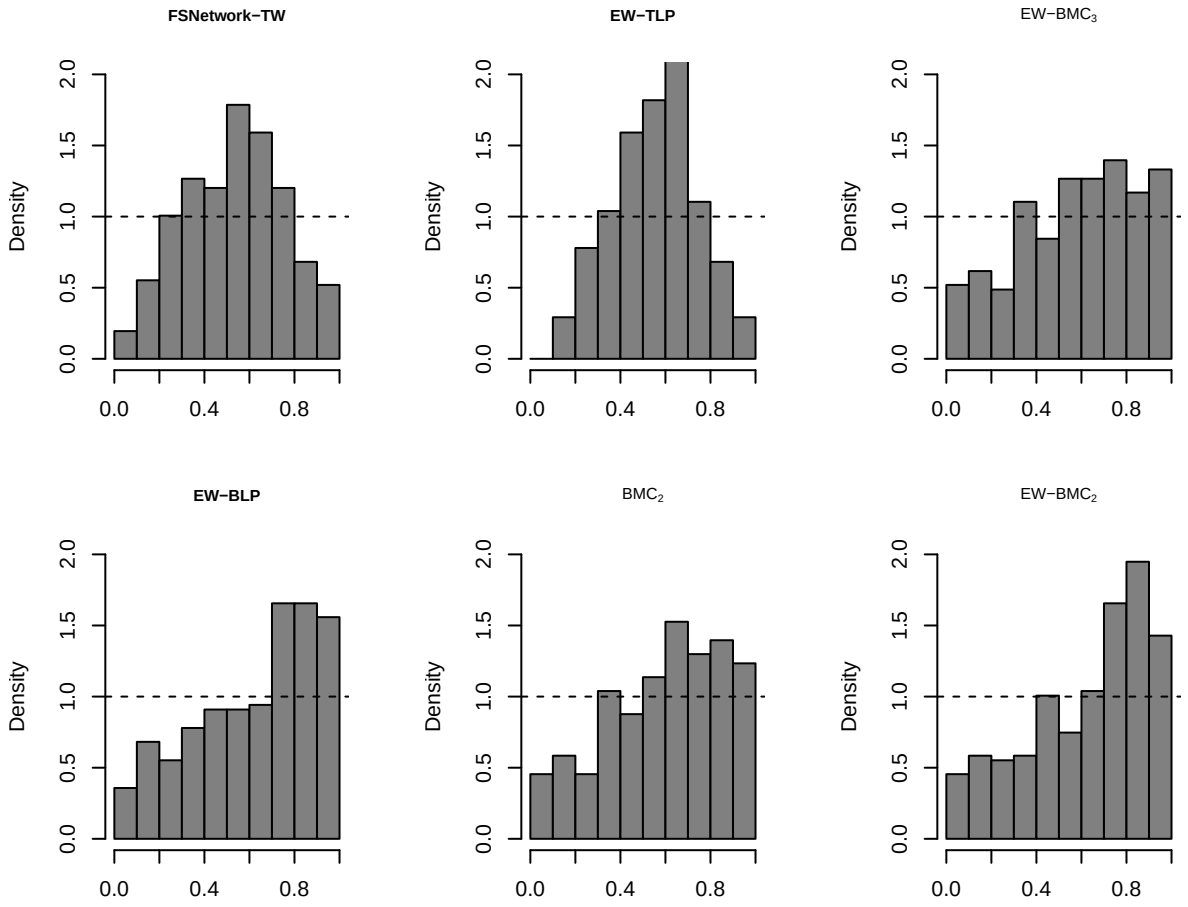


Figure 20: PIT Histograms for Test Season 2018/2019

- The PIT histograms in the training and test seasons look similar for the beta methods. The BLP, which outperforms other methods, has a more uniform PIT histogram in the test season.
- There is evidence of bias.

3 Week Ahead

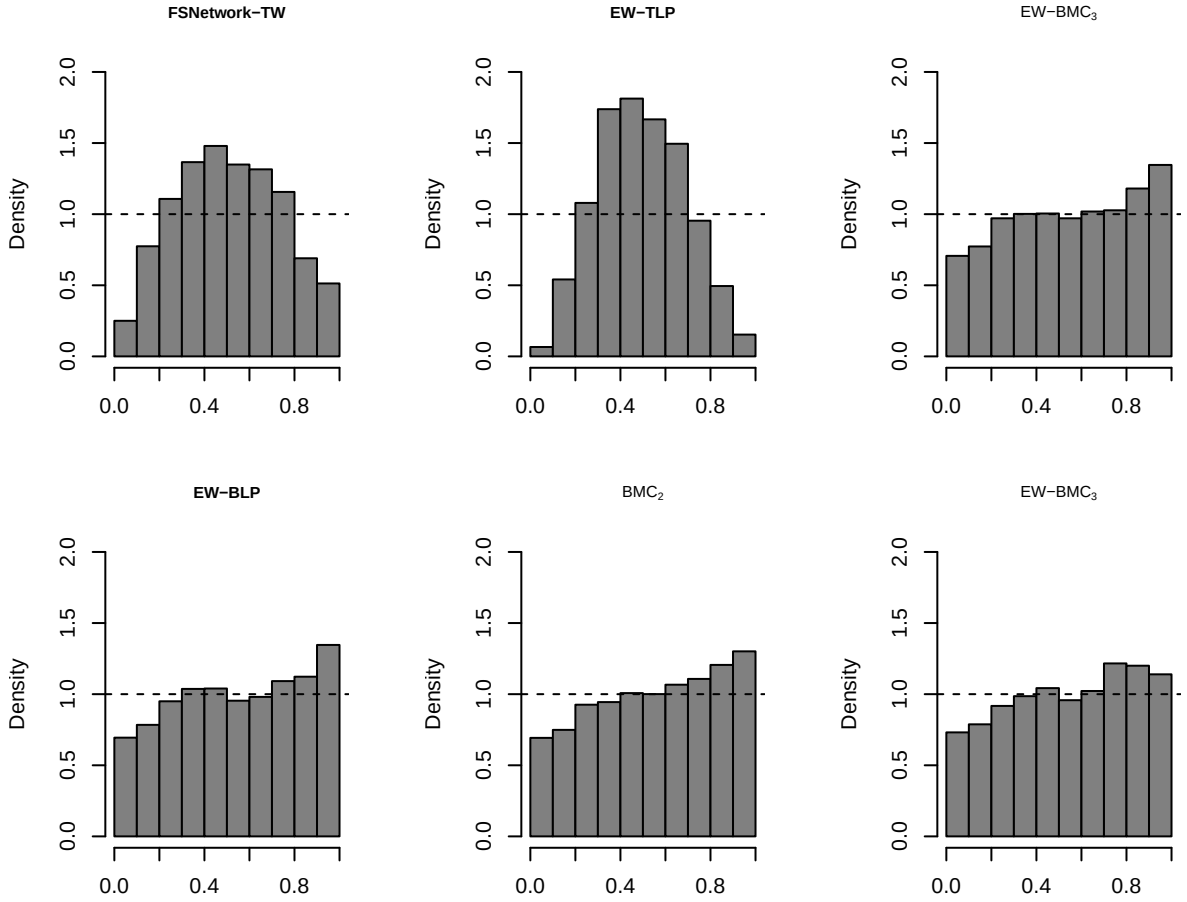


Figure 21: PIT Histograms for Training Seasons

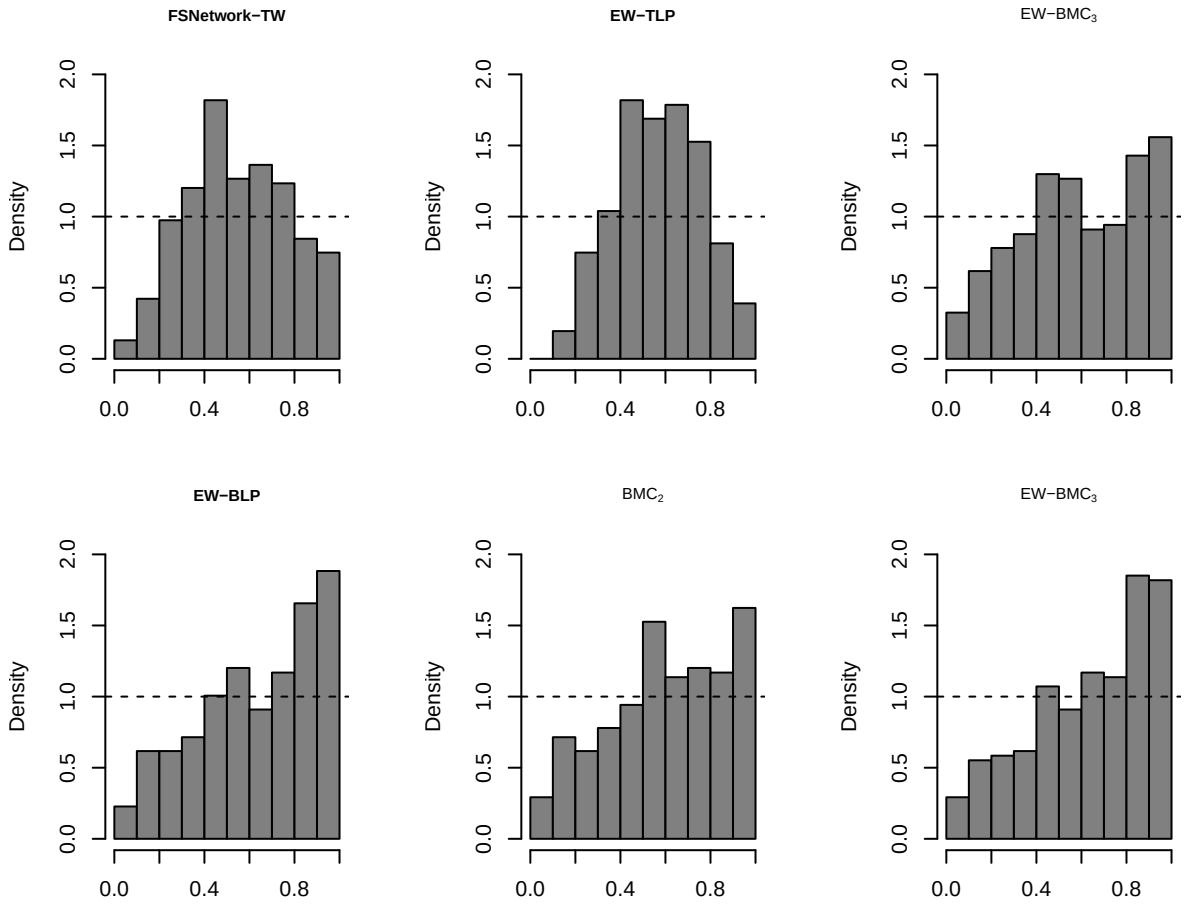


Figure 22: PIT Histograms for Test Season 2018/2019

- There is evidence of some bias in the PIT histograms in the test season, but look more calibrated for the training seasons (no surprise here).
- The BMC2, which outperforms other methods, does not seem to have a more uniform PIT histogram in the test season compared to other beta methods.

4 Week Ahead

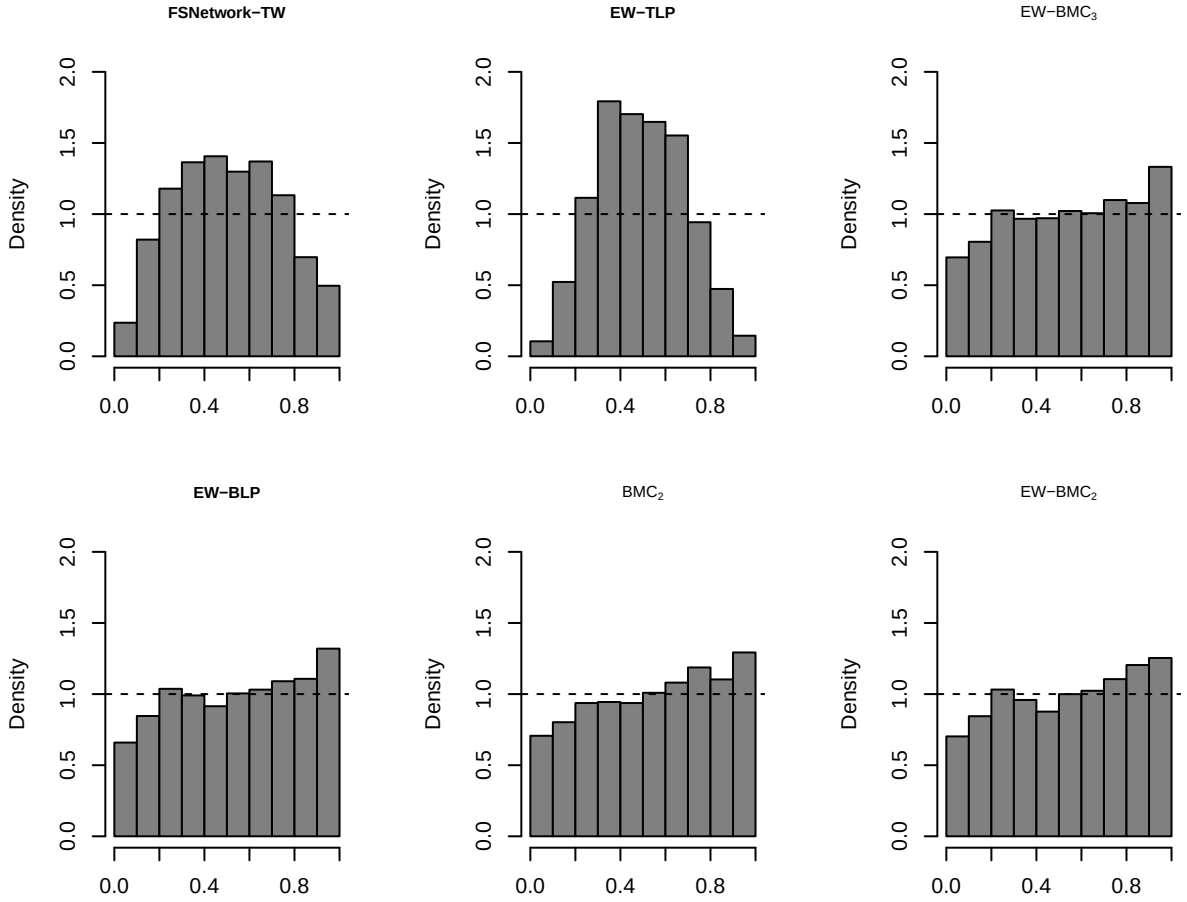


Figure 23: PIT Histograms for Training Seasons

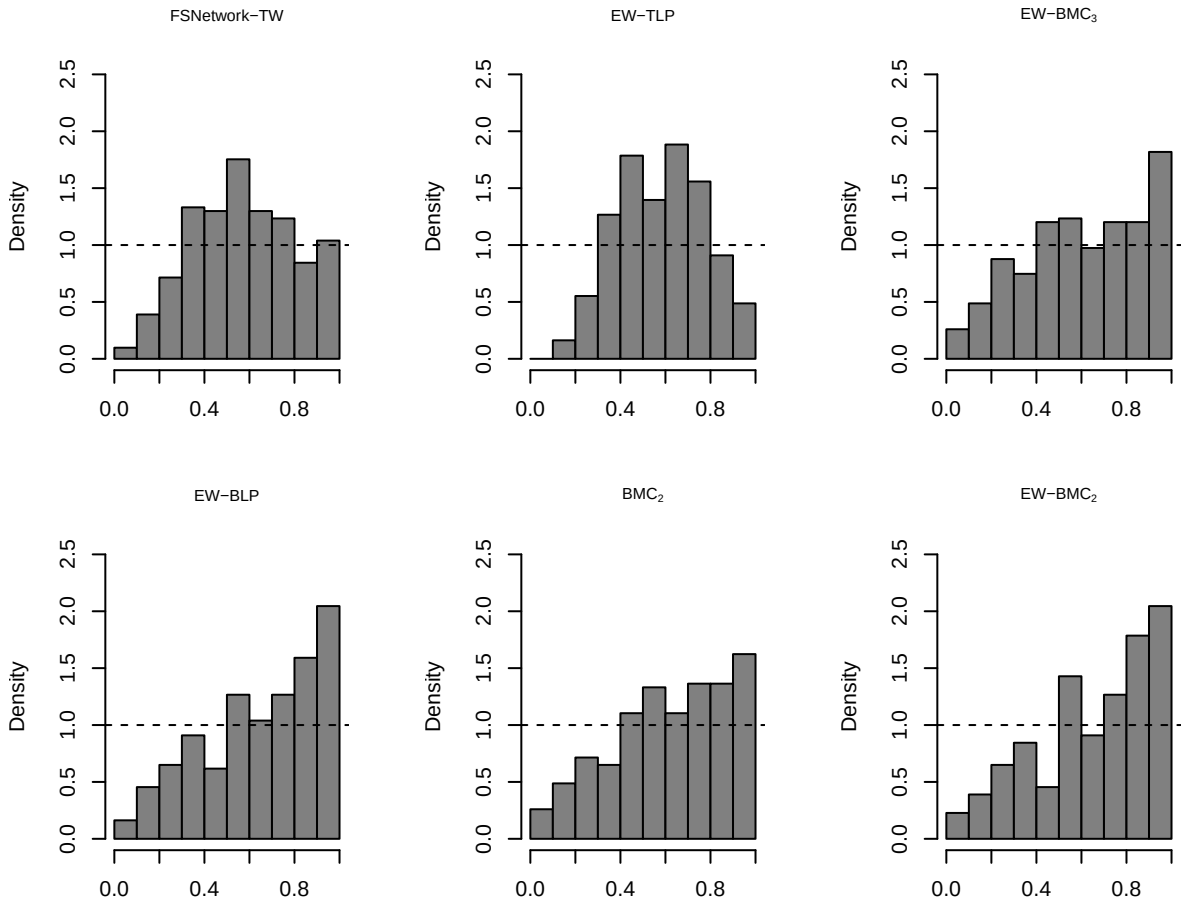


Figure 24: PIT Histograms for Test Season 2018/2019

- We see a lot bias in the PIT histograms in test seasons, especially for the equally-weighted beta methods, despite the PIT histograms looking well-calibrated for the training seasons.
- The BMC2, which outperforms other methods, has a more uniform PIT histogram in the test season compared to other methods. However, these don't look well-calibrated overall.

Estimated Parameters

Test season 2016/2017

1 Week Ahead

Method	w_1	w_2	α_1	β_1	α_2	β_2
TLP	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA
BLP	NA	NA	0.500	7.021	NA	NA
EW-BLP	NA	NA	0.495	7.224	NA	NA
BMC2	0.508	0.492	0.611	11.028	0.383	10.797
EW-BMC2	0.291	0.709	0.363	10.336	0.550	9.107

Method	ω_{11}	ω_{12}	ω_{13}	ω_{14}	ω_{15}	ω_{16}	ω_{17}	ω_{18}	ω_{19}	ω_{110}	ω_{111}	ω_{112}	ω_{113}
TLP	0.017	0.002	0.027	0.004	0.010	0.001	0.000	0.000	0.000	0.000	0.001	0.158	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.047	0.045	0.042	0.037	0.033	0.018	0.002	0.000	0.184	0.000	0.000	0.025	0.000
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.033	0.047	0.057	0.033	0.008	0.044	0.001	0.024	0.105	0.000	0.000	0.023	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{114}	ω_{115}	ω_{116}	ω_{117}	ω_{118}	ω_{119}	ω_{120}	ω_{121}	ω_{122}	ω_{123}	ω_{124}	ω_{125}	ω_{126}	ω_{127}
TLP	0.049	0.150	0.000	0.000	0.366	0.002	0.000	0.215	0.000	0.000	0.000	0.000	0.000	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.086	0.028	0.000	0.000	0.096	0.141	0.052	0.002	0.003	0.003	0.000	0.000	0.126	0.029
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.120	0.000	0.000	0.009	0.094	0.045	0.097	0.001	0.002	0.002	0.000	0.000	0.196	0.058
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{21}	ω_{22}	ω_{23}	ω_{24}	ω_{25}	ω_{26}	ω_{27}	ω_{28}	ω_{29}	ω_{210}	ω_{211}	ω_{212}	ω_{213}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.033	0.044	0.055	0.032	0.008	0.041	0.008	0.000	0.215	0.058	0.000	0.015	0.010
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{214}	ω_{215}	ω_{216}	ω_{217}	ω_{218}	ω_{219}	ω_{220}	ω_{221}	ω_{222}	ω_{223}	ω_{224}	ω_{225}	ω_{226}	ω_{227}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.000	0.113	0.000	0.000	0.083	0.207	0.000	0.001	0.000	0.000	0.004	0.000	0.072	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

2 Week Ahead

Method	w_1	w_2	α_1	β_1	α_2	β_2
TLP	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA
BLP	NA	NA	0.481	5.462	NA	NA
EW-BLP	NA	NA	0.458	6.166	NA	NA
BMC2	0.501	0.499	0.339	8.534	0.607	8.411
EW-BMC2	0.888	0.112	0.423	7.747	0.720	15.005

Method	ω_{11}	ω_{12}	ω_{13}	ω_{14}	ω_{15}	ω_{16}	ω_{17}	ω_{18}	ω_{19}	ω_{110}	ω_{111}	ω_{112}	ω_{113}
TLP	0.091	0.000	0.144	0.000	0.043	0.000	0.000	0.000	0.000	0.000	0.206	0.056	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.006	0.001	0.023	0.014	0.000	0.189	0.008	0.000	0.001	0.036	0.126	0.000	0.000
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.012	0.000	0.073	0.000	0.000	0.249	0.028	0.000	0.000	0.000	0.150	0.000	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{114}	ω_{115}	ω_{116}	ω_{117}	ω_{118}	ω_{119}	ω_{120}	ω_{121}	ω_{122}	ω_{123}	ω_{124}	ω_{125}	ω_{126}	ω_{127}
TLP	0.000	0.197	0.000	0.000	0.113	0.000	0.000	0.149	0.000	0.000	0.000	0.000	0.000	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.024	0.101	0.000	0.009	0.120	0.133	0.025	0.000	0.001	0.001	0.000	0.000	0.138	0.042
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.012	0.106	0.000	0.000	0.052	0.199	0.000	0.000	0.002	0.022	0.000	0.000	0.095	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{21}	ω_{22}	ω_{23}	ω_{24}	ω_{25}	ω_{26}	ω_{27}	ω_{28}	ω_{29}	ω_{210}	ω_{211}	ω_{212}	ω_{213}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.000	0.000	0.035	0.027	0.000	0.125	0.000	0.000	0.000	0.000	0.083	0.000	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{214}	ω_{215}	ω_{216}	ω_{217}	ω_{218}	ω_{219}	ω_{220}	ω_{221}	ω_{222}	ω_{223}	ω_{224}	ω_{225}	ω_{226}	ω_{227}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.037	0.084	0.000	0.023	0.182	0.000	0.132	0.000	0.000	0.000	0.000	0.000	0.209	0.062
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

3 Week Ahead

Method	w_1	w_2	α_1	β_1	α_2	β_2
TLP	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA
BLP	NA	NA	0.466	5.393	NA	NA
EW-BLP	NA	NA	0.454	6.140	NA	NA
BMC2	0.100	0.900	0.116	51.829	0.486	5.632
EW-BMC2	0.946	0.054	0.459	5.936	0.348	64.473

Method	ω_{11}	ω_{12}	ω_{13}	ω_{14}	ω_{15}	ω_{16}	ω_{17}	ω_{18}	ω_{19}	ω_{110}	ω_{111}	ω_{112}	ω_{113}
TLP	0.115	0.000	0.093	0.000	0.041	0.000	0.000	0.008	0.000	0.000	0.183	0.041	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.001	0.035	0.061	0.023	0.007	0.118	0.027	0.000	0.002	0.045	0.145	0.000	0.000
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.002	0.130	0.719	0.000	0.003	0.002	0.035	0.000	0.000	0.000	0.011	0.050	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{114}	ω_{115}	ω_{116}	ω_{117}	ω_{118}	ω_{119}	ω_{120}	ω_{121}	ω_{122}	ω_{123}	ω_{124}	ω_{125}	ω_{126}	ω_{127}
TLP	0.000	0.179	0.000	0.000	0.124	0.000	0.000	0.216	0.000	0.000	0.000	0.000	0.000	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.032	0.086	0.000	0.015	0.072	0.134	0.001	0.000	0.005	0.020	0.005	0.000	0.130	0.035
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.000	0.000	0.000	0.000	0.008	0.039	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{21}	ω_{22}	ω_{23}	ω_{24}	ω_{25}	ω_{26}	ω_{27}	ω_{28}	ω_{29}	ω_{210}	ω_{211}	ω_{212}	ω_{213}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.008	0.014	0.096	0.001	0.015	0.089	0.025	0.000	0.000	0.045	0.140	0.000	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{214}	ω_{215}	ω_{216}	ω_{217}	ω_{218}	ω_{219}	ω_{220}	ω_{221}	ω_{222}	ω_{223}	ω_{224}	ω_{225}	ω_{226}	ω_{227}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.032	0.091	0.000	0.013	0.062	0.128	0.001	0.000	0.002	0.011	0.037	0.000	0.148	0.041
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

4 Week Ahead

Method	w_1	w_2	α_1	β_1	α_2	β_2
TLP	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA
BLP	NA	NA	0.465	5.675	NA	NA
EW-BLP	NA	NA	0.452	6.001	NA	NA
BMC2	0.579	0.421	0.577	9.395	0.274	11.114
EW-BMC2	0.615	0.385	0.453	6.000	0.451	6.004

Method	ω_{11}	ω_{12}	ω_{13}	ω_{14}	ω_{15}	ω_{16}	ω_{17}	ω_{18}	ω_{19}	ω_{110}	ω_{111}	ω_{112}	ω_{113}
TLP	0.095	0.000	0.018	0.000	0.100	0.000	0.006	0.032	0.000	0.000	0.177	0.029	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.001	0.037	0.001	0.000	0.064	0.135	0.020	0.000	0.001	0.036	0.118	0.018	0.000
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.000	0.001	0.002	0.000	0.047	0.138	0.016	0.000	0.001	0.032	0.084	0.000	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{114}	ω_{115}	ω_{116}	ω_{117}	ω_{118}	ω_{119}	ω_{120}	ω_{121}	ω_{122}	ω_{123}	ω_{124}	ω_{125}	ω_{126}	ω_{127}
TLP	0.034	0.113	0.000	0.000	0.112	0.000	0.000	0.284	0.000	0.000	0.000	0.000	0.000	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.054	0.049	0.000	0.027	0.000	0.157	0.000	0.001	0.016	0.012	0.060	0.013	0.142	0.038
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.015	0.084	0.000	0.049	0.022	0.063	0.000	0.000	0.000	0.000	0.210	0.000	0.186	0.049
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{21}	ω_{22}	ω_{23}	ω_{24}	ω_{25}	ω_{26}	ω_{27}	ω_{28}	ω_{29}	ω_{210}	ω_{211}	ω_{212}	ω_{213}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.080	0.036	0.154	0.000	0.140	0.000	0.029	0.000	0.000	0.000	0.126	0.043	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{214}	ω_{215}	ω_{216}	ω_{217}	ω_{218}	ω_{219}	ω_{220}	ω_{221}	ω_{222}	ω_{223}	ω_{224}	ω_{225}	ω_{226}	ω_{227}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.065	0.010	0.037	0.000	0.000	0.001	0.000	0.167	0.001	0.000	0.000	0.068	0.041	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Test season 2017/2018

1 Week Ahead

Method	w_1	w_2	α_1	β_1	α_2	β_2
TLP	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA
BLP	NA	NA	0.504	6.539	NA	NA
EW-BLP	NA	NA	0.496	7.000	NA	NA
BMC2	0.484	0.516	0.622	9.800	0.395	9.943
EW-BMC2	0.398	0.602	0.393	9.049	0.565	8.964

Method	ω_{11}	ω_{12}	ω_{13}	ω_{14}	ω_{15}	ω_{16}	ω_{17}	ω_{18}	ω_{19}	ω_{110}	ω_{111}	ω_{112}	ω_{113}
TLP	0.012	0.012	0.012	0.012	0.012	0.012	0.000	0.033	0.000	0.000	0.001	0.128	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.043	0.046	0.033	0.045	0.046	0.013	0.002	0.000	0.155	0.000	0.000	0.034	0.000
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.022	0.044	0.043	0.041	0.039	0.037	0.012	0.028	0.066	0.000	0.000	0.037	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{114}	ω_{115}	ω_{116}	ω_{117}	ω_{118}	ω_{119}	ω_{120}	ω_{121}	ω_{122}	ω_{123}	ω_{124}	ω_{125}	ω_{126}	ω_{127}
TLP	0.040	0.155	0.000	0.000	0.350	0.003	0.000	0.217	0.000	0.000	0.000	0.000	0.000	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.082	0.032	0.000	0.000	0.114	0.135	0.052	0.000	0.000	0.000	0.000	0.000	0.136	0.031
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.121	0.000	0.000	0.001	0.122	0.040	0.087	0.002	0.004	0.002	0.000	0.000	0.186	0.068
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{21}	ω_{22}	ω_{23}	ω_{24}	ω_{25}	ω_{26}	ω_{27}	ω_{28}	ω_{29}	ω_{210}	ω_{211}	ω_{212}	ω_{213}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.019	0.041	0.042	0.041	0.038	0.035	0.000	0.000	0.201	0.066	0.000	0.017	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{214}	ω_{215}	ω_{216}	ω_{217}	ω_{218}	ω_{219}	ω_{220}	ω_{221}	ω_{222}	ω_{223}	ω_{224}	ω_{225}	ω_{226}	ω_{227}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.000	0.108	0.000	0.000	0.092	0.195	0.000	0.002	0.000	0.000	0.011	0.000	0.092	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

2 Week Ahead

Method	w_1	w_2	α_1	β_1	α_2	β_2
TLP	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA
BLP	NA	NA	0.485	5.217	NA	NA
EW-BLP	NA	NA	0.462	5.950	NA	NA
BMC2	0.960	0.040	0.462	6.007	0.871	60.970
EW-BMC2	0.862	0.138	0.419	7.877	0.715	13.192

Method	ω_{11}	ω_{12}	ω_{13}	ω_{14}	ω_{15}	ω_{16}	ω_{17}	ω_{18}	ω_{19}	ω_{110}	ω_{111}	ω_{112}	ω_{113}
TLP	0.059	0.000	0.211	0.004	0.019	0.000	0.000	0.005	0.000	0.000	0.230	0.033	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.000	0.000	0.036	0.041	0.000	0.156	0.007	0.000	0.000	0.025	0.119	0.000	0.000
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.002	0.000	0.078	0.004	0.000	0.156	0.007	0.000	0.001	0.044	0.125	0.000	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{114}	ω_{115}	ω_{116}	ω_{117}	ω_{118}	ω_{119}	ω_{120}	ω_{121}	ω_{122}	ω_{123}	ω_{124}	ω_{125}	ω_{126}	ω_{127}
TLP	0.000	0.206	0.000	0.000	0.089	0.000	0.000	0.144	0.000	0.000	0.000	0.000	0.000	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.022	0.098	0.000	0.011	0.161	0.131	0.034	0.000	0.000	0.000	0.000	0.000	0.128	0.031
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.025	0.092	0.000	0.006	0.139	0.148	0.023	0.000	0.000	0.000	0.000	0.000	0.123	0.025
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{21}	ω_{22}	ω_{23}	ω_{24}	ω_{25}	ω_{26}	ω_{27}	ω_{28}	ω_{29}	ω_{210}	ω_{211}	ω_{212}	ω_{213}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.001	0.107	0.002	0.188	0.076	0.069	0.051	0.000	0.000	0.000	0.001	0.115	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{214}	ω_{215}	ω_{216}	ω_{217}	ω_{218}	ω_{219}	ω_{220}	ω_{221}	ω_{222}	ω_{223}	ω_{224}	ω_{225}	ω_{226}	ω_{227}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.000	0.006	0.000	0.000	0.161	0.001	0.045	0.000	0.000	0.000	0.001	0.000	0.176	0.001
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

3 Week Ahead

Method	w_1	w_2	α_1	β_1	α_2	β_2
TLP	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA
BLP	NA	NA	0.473	5.177	NA	NA
EW-BLP	NA	NA	0.458	5.861	NA	NA
BMC2	0.545	0.455	0.327	8.455	0.631	8.902
EW-BMC2	0.864	0.136	0.418	7.440	0.706	13.739

Method	ω_{11}	ω_{12}	ω_{13}	ω_{14}	ω_{15}	ω_{16}	ω_{17}	ω_{18}	ω_{19}	ω_{110}	ω_{111}	ω_{112}	ω_{113}
TLP	0.056	0.000	0.175	0.000	0.014	0.000	0.000	0.052	0.000	0.000	0.206	0.040	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.000	0.000	0.065	0.062	0.013	0.099	0.029	0.000	0.000	0.047	0.128	0.007	0.000
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.000	0.036	0.170	0.000	0.064	0.053	0.042	0.018	0.000	0.035	0.183	0.004	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{114}	ω_{115}	ω_{116}	ω_{117}	ω_{118}	ω_{119}	ω_{120}	ω_{121}	ω_{122}	ω_{123}	ω_{124}	ω_{125}	ω_{126}	ω_{127}
TLP	0.000	0.177	0.000	0.000	0.107	0.000	0.000	0.175	0.000	0.000	0.000	0.000	0.000	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.026	0.086	0.000	0.021	0.109	0.131	0.016	0.000	0.003	0.007	0.001	0.000	0.129	0.022
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.061	0.041	0.006	0.000	0.002	0.002	0.000	0.160	0.004	0.007	0.000	0.025	0.088	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{21}	ω_{22}	ω_{23}	ω_{24}	ω_{25}	ω_{26}	ω_{27}	ω_{28}	ω_{29}	ω_{210}	ω_{211}	ω_{212}	ω_{213}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.000	0.000	0.016	0.088	0.001	0.085	0.009	0.000	0.000	0.000	0.054	0.001	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{214}	ω_{215}	ω_{216}	ω_{217}	ω_{218}	ω_{219}	ω_{220}	ω_{221}	ω_{222}	ω_{223}	ω_{224}	ω_{225}	ω_{226}	ω_{227}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.000	0.099	0.000	0.019	0.261	0.001	0.085	0.000	0.000	0.000	0.056	0.000	0.171	0.051
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

4 Week Ahead

Method	w_1	w_2	w_3	w_4	w_5
TLP	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA
BMC2	0.778	0.222	NA	NA	NA
EW-BMC5	0.148	0.622	0.057	0.137	0.037

Method	α_1	β_1	α_2	β_2	α_3	β_3	α_4	β_4	α_5	β_5
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	0.470	5.397	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	0.457	5.736	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.388	7.313	0.731	15.159	NA	NA	NA	NA	NA	NA
EW-BMC5	0.304	64.993	0.502	12.677	0.726	64.486	0.19	22.391	0.849	64.96

Method	ω_{11}	ω_{12}	ω_{13}	ω_{14}	ω_{15}	ω_{16}	ω_{17}	ω_{18}	ω_{19}	ω_{110}	ω_{111}	ω_{112}	ω_{113}
TLP	0.078	0.000	0.051	0.000	0.073	0.000	0.006	0.066	0.000	0.000	0.194	0.022	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.000	0.002	0.040	0.000	0.047	0.136	0.016	0.000	0.003	0.043	0.101	0.023	0.000
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.002	0.045	0.045	0.000	0.126	0.053	0.023	0.013	0.001	0.055	0.141	0.026	0.000
EW-BMC5	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{114}	ω_{115}	ω_{116}	ω_{117}	ω_{118}	ω_{119}	ω_{120}	ω_{121}	ω_{122}	ω_{123}	ω_{124}	ω_{125}	ω_{126}	ω_{127}
TLP	0.004	0.137	0.000	0.000	0.088	0.000	0.000	0.280	0.000	0.000	0.000	0.000	0.000	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.044	0.055	0.000	0.039	0.026	0.176	0.000	0.001	0.010	0.010	0.053	0.000	0.151	0.024
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.062	0.042	0.000	0.014	0.000	0.023	0.000	0.164	0.000	0.001	0.014	0.025	0.110	0.016
EW-BMC5	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{21}	ω_{22}	ω_{23}	ω_{24}	ω_{25}	ω_{26}	ω_{27}	ω_{28}	ω_{29}	ω_{210}	ω_{211}	ω_{212}	ω_{213}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.000	0.000	0.000	0.002	0.000	0.125	0.002	0.000	0.001	0.017	0.000	0.000	0.000
EW-BMC5	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{214}	ω_{215}	ω_{216}	ω_{217}	ω_{218}	ω_{219}	ω_{220}	ω_{221}	ω_{222}	ω_{223}	ω_{224}	ω_{225}	ω_{226}	ω_{227}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.000	0.041	0.000	0.017	0.345	0.001	0.080	0.000	0.045	0.003	0.121	0.000	0.181	0.016
EW-BMC5	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{31}	ω_{32}	ω_{33}	ω_{34}	ω_{35}	ω_{36}	ω_{37}	ω_{38}	ω_{39}	ω_{310}	ω_{311}	ω_{312}	ω_{313}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BMC5	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{314}	ω_{315}	ω_{316}	ω_{317}	ω_{318}	ω_{319}	ω_{320}	ω_{321}	ω_{322}	ω_{323}	ω_{324}	ω_{325}	ω_{326}	ω_{327}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BMC5	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{41}	ω_{42}	ω_{43}	ω_{44}	ω_{45}	ω_{46}	ω_{47}	ω_{48}	ω_{49}	ω_{410}	ω_{411}	ω_{412}	ω_{413}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BMC5	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

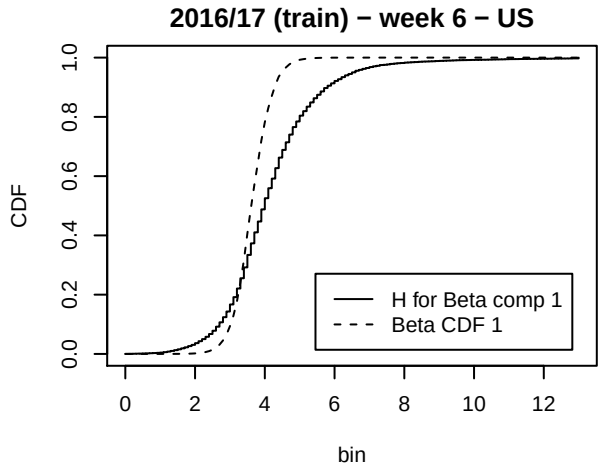
Method	ω_{414}	ω_{415}	ω_{416}	ω_{417}	ω_{418}	ω_{419}	ω_{420}	ω_{421}	ω_{422}	ω_{423}	ω_{424}	ω_{425}	ω_{426}	ω_{427}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BMC5	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

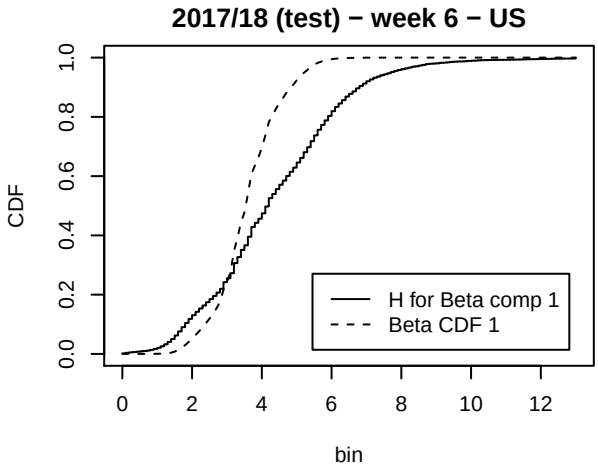
Method	ω_{51}	ω_{52}	ω_{53}	ω_{54}	ω_{55}	ω_{56}	ω_{57}	ω_{58}	ω_{59}	ω_{510}	ω_{511}	ω_{512}	ω_{513}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BMC5	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

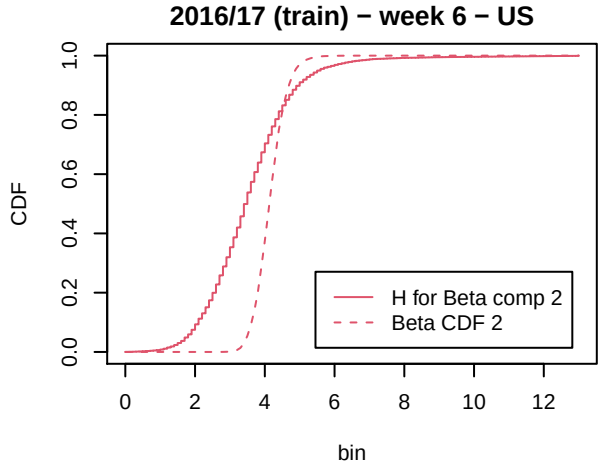
Method	ω_{514}	ω_{515}	ω_{516}	ω_{517}	ω_{518}	ω_{519}	ω_{520}	ω_{521}	ω_{522}	ω_{523}	ω_{524}	ω_{525}	ω_{526}	ω_{527}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BMC5	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

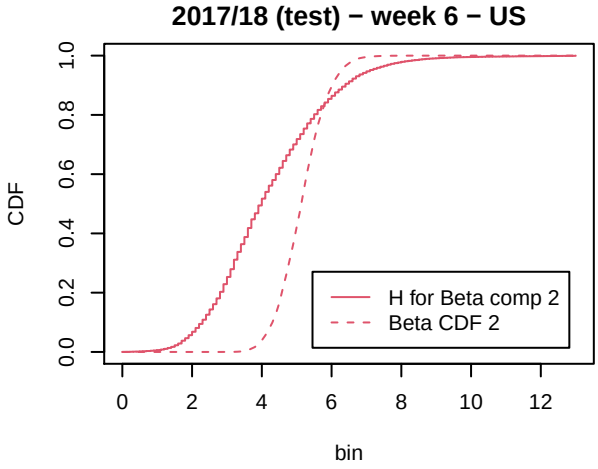
Transformation Examples

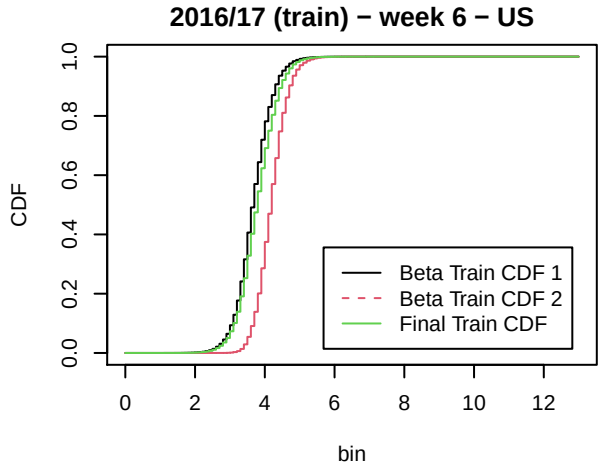
I picked week 6, US National, 2016/17 (one of the train seasons) and 2017/18 (test season). What we should note about the beta mixture PDFs is that we make a mixture of beta CDFs first, then convert to PDFs.

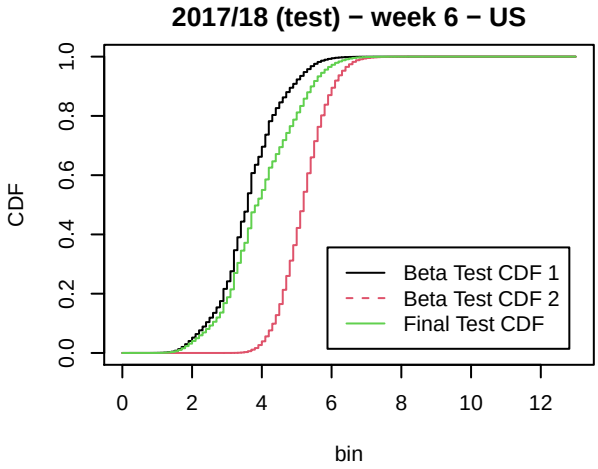












Test season 2018/2019

1 Week Ahead

Method	w_1	w_2	α_1	β_1	α_2	β_2
TLP	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA
BLP	NA	NA	0.505	6.256	NA	NA
EW-BLP	NA	NA	0.500	6.776	NA	NA
BMC2	0.503	0.497	0.395	9.283	0.617	9.295
EW-BMC2	0.007	0.993	0.474	6.651	0.500	6.778

Method	ω_{11}	ω_{12}	ω_{13}	ω_{14}	ω_{15}	ω_{16}	ω_{17}	ω_{18}	ω_{19}	ω_{110}	ω_{111}	ω_{112}	ω_{113}
TLP	0.020	0.002	0.031	0.004	0.011	0.001	0.000	0.011	0.000	0.000	0.000	0.140	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.001	0.000	0.080	0.126	0.001	0.000	0.000	0.001	0.148	0.000	0.000	0.039	0.000
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.012	0.000	0.151	0.000	0.051	0.000	0.000	0.000	0.179	0.055	0.000	0.024	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{114}	ω_{115}	ω_{116}	ω_{117}	ω_{118}	ω_{119}	ω_{120}	ω_{121}	ω_{122}	ω_{123}	ω_{124}	ω_{125}	ω_{126}	ω_{127}
TLP	0.059	0.127	0.000	0.000	0.357	0.002	0.000	0.235	0.000	0.000	0.000	0.000	0.000	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.082	0.028	0.000	0.000	0.146	0.146	0.045	0.001	0.000	0.000	0.000	0.000	0.135	0.019
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.000	0.104	0.000	0.000	0.118	0.209	0.000	0.001	0.000	0.000	0.003	0.000	0.091	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{21}	ω_{22}	ω_{23}	ω_{24}	ω_{25}	ω_{26}	ω_{27}	ω_{28}	ω_{29}	ω_{210}	ω_{211}	ω_{212}	ω_{213}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.000	0.000	0.000	0.192	0.000	0.000	0.000	0.000	0.092	0.000	0.000	0.058	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{214}	ω_{215}	ω_{216}	ω_{217}	ω_{218}	ω_{219}	ω_{220}	ω_{221}	ω_{222}	ω_{223}	ω_{224}	ω_{225}	ω_{226}	ω_{227}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.118	0.000	0.000	0.000	0.165	0.062	0.078	0.001	0.000	0.000	0.000	0.000	0.190	0.043
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

2 Week Ahead

Method	w_1	w_2	α_1	β_1	α_2	β_2
TLP	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA
BLP	NA	NA	0.499	4.944	NA	NA
EW-BLP	NA	NA	0.473	5.597	NA	NA
BMC2	0.561	0.439	0.373	7.837	0.636	7.584
EW-BMC2	0.885	0.115	0.433	7.514	0.757	12.697

Method	ω_{11}	ω_{12}	ω_{13}	ω_{14}	ω_{15}	ω_{16}	ω_{17}	ω_{18}	ω_{19}	ω_{110}	ω_{111}	ω_{112}	ω_{113}
TLP	0.067	0.000	0.160	0.000	0.073	0.000	0.000	0.000	0.000	0.000	0.195	0.046	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.006	0.003	0.044	0.005	0.001	0.159	0.001	0.000	0.000	0.000	0.124	0.000	0.000
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.049	0.000	0.065	0.000	0.000	0.159	0.010	0.000	0.038	0.016	0.160	0.000	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{114}	ω_{115}	ω_{116}	ω_{117}	ω_{118}	ω_{119}	ω_{120}	ω_{121}	ω_{122}	ω_{123}	ω_{124}	ω_{125}	ω_{126}	ω_{127}
TLP	0.000	0.178	0.000	0.000	0.103	0.000	0.000	0.178	0.000	0.000	0.000	0.000	0.000	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.028	0.087	0.000	0.003	0.228	0.125	0.034	0.000	0.000	0.000	0.000	0.000	0.136	0.014
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.025	0.091	0.000	0.000	0.069	0.214	0.000	0.000	0.002	0.000	0.000	0.000	0.102	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{21}	ω_{22}	ω_{23}	ω_{24}	ω_{25}	ω_{26}	ω_{27}	ω_{28}	ω_{29}	ω_{210}	ω_{211}	ω_{212}	ω_{213}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.000	0.000	0.035	0.029	0.001	0.112	0.000	0.000	0.000	0.000	0.055	0.002	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{214}	ω_{215}	ω_{216}	ω_{217}	ω_{218}	ω_{219}	ω_{220}	ω_{221}	ω_{222}	ω_{223}	ω_{224}	ω_{225}	ω_{226}	ω_{227}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.034	0.058	0.000	0.000	0.400	0.000	0.090	0.000	0.000	0.000	0.000	0.000	0.170	0.013
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

3 Week Ahead

Method	w_1	w_2	w_3	α_1	β_1	α_2	β_2	α_3	β_3
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	0.493	4.748	NA	NA	NA	NA
EW-BLP	NA	NA	NA	0.472	5.387	NA	NA	NA	NA
BMC2	0.632	0.368	NA	0.367	7.260	0.673	8.411	NA	NA
EW-BMC3	0.081	0.063	0.855	0.783	12.430	0.484	6.122	0.438	6.89

Method	ω_{11}	ω_{12}	ω_{13}	ω_{14}	ω_{15}	ω_{16}	ω_{17}	ω_{18}	ω_{19}	ω_{110}	ω_{111}	ω_{112}	ω_{113}
TLP	0.063	0.000	0.110	0.000	0.082	0.000	0.000	0.044	0.000	0.000	0.167	0.035	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.000	0.001	0.057	0.011	0.048	0.097	0.019	0.000	0.000	0.000	0.118	0.012	0.000
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.001	0.040	0.172	0.001	0.051	0.027	0.029	0.000	0.001	0.021	0.171	0.006	0.000
EW-BMC3	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{114}	ω_{115}	ω_{116}	ω_{117}	ω_{118}	ω_{119}	ω_{120}	ω_{121}	ω_{122}	ω_{123}	ω_{124}	ω_{125}	ω_{126}	ω_{127}
TLP	0.000	0.156	0.000	0.000	0.110	0.000	0.000	0.234	0.000	0.000	0.000	0.000	0.000	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.027	0.084	0.000	0.020	0.178	0.125	0.022	0.000	0.005	0.022	0.000	0.000	0.149	0.004
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.059	0.055	0.000	0.000	0.034	0.078	0.000	0.104	0.015	0.018	0.000	0.000	0.115	0.000
EW-BMC3	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{21}	ω_{22}	ω_{23}	ω_{24}	ω_{25}	ω_{26}	ω_{27}	ω_{28}	ω_{29}	ω_{210}	ω_{211}	ω_{212}	ω_{213}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.000	0.000	0.001	0.002	0.039	0.110	0.000	0.000	0.000	0.000	0.023	0.003	0.000
EW-BMC3	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{214}	ω_{215}	ω_{216}	ω_{217}	ω_{218}	ω_{219}	ω_{220}	ω_{221}	ω_{222}	ω_{223}	ω_{224}	ω_{225}	ω_{226}	ω_{227}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.000	0.074	0.000	0.012	0.415	0.001	0.111	0.000	0.000	0.000	0.000	0.000	0.195	0.013
EW-BMC3	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{31}	ω_{32}	ω_{33}	ω_{34}	ω_{35}	ω_{36}	ω_{37}	ω_{38}	ω_{39}	ω_{310}	ω_{311}	ω_{312}	ω_{313}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BMC3	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{314}	ω_{315}	ω_{316}	ω_{317}	ω_{318}	ω_{319}	ω_{320}	ω_{321}	ω_{322}	ω_{323}	ω_{324}	ω_{325}	ω_{326}	ω_{327}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BMC3	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

4 Week Ahead

Method	w_1	w_2	α_1	β_1	α_2	β_2
TLP	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA
BLP	NA	NA	0.490	4.747	NA	NA
EW-BLP	NA	NA	0.472	5.216	NA	NA
BMC2	0.290	0.710	0.723	9.573	0.378	7.348
EW-BMC2	0.963	0.037	0.454	6.160	0.868	27.578

Method	ω_{11}	ω_{12}	ω_{13}	ω_{14}	ω_{15}	ω_{16}	ω_{17}	ω_{18}	ω_{19}	ω_{110}	ω_{111}	ω_{112}	ω_{113}
TLP	0.064	0.000	0.040	0.000	0.114	0.000	0.000	0.069	0.000	0.000	0.162	0.020	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.000	0.000	0.031	0.000	0.071	0.100	0.010	0.000	0.003	0.001	0.095	0.027	0.000
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.000	0.000	0.002	0.000	0.015	0.096	0.003	0.000	0.000	0.000	0.000	0.000	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{114}	ω_{115}	ω_{116}	ω_{117}	ω_{118}	ω_{119}	ω_{120}	ω_{121}	ω_{122}	ω_{123}	ω_{124}	ω_{125}	ω_{126}	ω_{127}
TLP	0.008	0.117	0.000	0.000	0.088	0.000	0.000	0.318	0.000	0.000	0.000	0.000	0.000	0.000
EW	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BLP	0.042	0.058	0.000	0.033	0.099	0.182	0.001	0.001	0.018	0.033	0.011	0.000	0.173	0.009
EW-BLP	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
BMC2	0.000	0.051	0.000	0.017	0.386	0.090	0.110	0.001	0.027	0.003	0.029	0.000	0.170	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{21}	ω_{22}	ω_{23}	ω_{24}	ω_{25}	ω_{26}	ω_{27}	ω_{28}	ω_{29}	ω_{210}	ω_{211}	ω_{212}	ω_{213}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.002	0.046	0.079	0.000	0.137	0.018	0.016	0.007	0.001	0.043	0.145	0.030	0.000
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037

Method	ω_{214}	ω_{215}	ω_{216}	ω_{217}	ω_{218}	ω_{219}	ω_{220}	ω_{221}	ω_{222}	ω_{223}	ω_{224}	ω_{225}	ω_{226}	ω_{227}
TLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EW-BLP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BMC2	0.072	0.031	0.000	0.001	0.000	0.005	0.000	0.191	0.002	0.024	0.001	0.013	0.125	0.012
EW-BMC2	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037