

Abstract

Economic agents often face situations, where there are multiple competing forecasts available. Despite five decades of research on forecast combinations, most of the methods introduced so far fail to outperform the equal weights forecast combination in empirical applications. In this study, we gather a wide spectrum of forecast combination methods and reexamine these findings in two different classical economic times series forecasting applications. These include out-of-sample combining forecasts from the ECB Survey of Professional Forecasters and forecasts of the realized volatility of the U.S. Treasury futures log-returns. We assess the performance of artificial prediction markets, a class of machine learning methods, which has not yet been applied to the problem of combining economic times series forecasts. Furthermore, we propose a new simple method called Market for Kernels, which is designed specifically for combining time series forecasts. We found that equal weights can be significantly outperformed by several forecast combinations, including Bates-Granger methods and artificial prediction markets in the ECB Survey of Professional Forecasters application and by almost all examined forecast combinations in the financial application. We also found that the Market for Kernels forecast performance is comparable to the best forecast combinations from the literature in both of the applications.

JEL Classification C00, C53, C58

Keywords Forecast combinations, artificial prediction markets, Market for Kernels, forecasting economic time series

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