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Forecasting Annual Inflation with Power Transformations: The Case of Inflation Targeting Countries

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This paper investigates whether transforming the Consumer Price Index with a class of power transformations lead to an improvement of inflation forecasting accuracy. We use one of the prototypical models to forecast short run inflation which is known as the univariate time series ARIMA . This model is based on past inflation which is traditionally approximated by the difference of logarithms of the underlying consumer price index. The common practice of applying the logarithm could damage the forecast precision if this transformation does not stabilize the variance adequately. In this paper we investigate the benefits of incorporating these transformations using a sample of 28 countries that has adopted the inflation targeting framework. An appropriate transformation reduces problems with estimation, prediction and inference. The choice of the parameter is done by bayesian grounds.

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