

Examination of Forecast Errors in USDA Cotton Forecasts.

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Abstract:

Given the limited knowledge about the accuracy of the USDA cotton forecasts, the goal of this study was to provide a comprehensive examination of accuracy and efficiency of all supply and demand categories of these forecasts and to investigate potential improvements in forecasts resulting from correction of inefficiencies. This study included data from monthly *World Agricultural Supply and Demand Estimates* (WASDE) balance sheets for upland cotton for the U.S., China and World over 1985/1986 through 2008/2009 including unpublished price forecasts.

The analysis incorporates multiple aspects of forecast performance including: 1) bias, 2) efficiency with respect to forecast levels, 3) efficiency with respect to past errors, 4) efficiency in forecast revisions, 5) forecast improvement over the forecasting cycle, 6) forecast improvement through time, 7) investigation of whether errors in ending stocks forecasts originate from errors in other balance sheet categories and whether U.S. cotton price errors are correlated with other U.S. as well as foreign balance sheet errors. While inefficiencies were found in most aspects of forecasts performance, our findings show that correction for correlation in forecast errors with previous errors and forecast levels have the largest implications for improving forecast accuracy.