Introduction

Agricultural prices are notoriously difficult to forecast due to shocks from weather events around the world, the influence of government policy in the marketplace, and changing tastes and technology. In addition, agricultural prices are affected by macroeconomic shocks and shifts in energy markets. Forecasts of agricultural prices are important to both private and public policymakers, as well as producers and consumers of agricultural products. Therefore, agricultural price forecasting is a widespread activity. USDA alone publishes updates of price forecasts for 24 commodities every month in its *World Agricultural Supply and Demand Estimates*. However, until recently USDA was legally prohibited from forecasting cotton prices.[1] Cotton price forecasts were available each month from the International Cotton Advisory Committee (ICAC) and—less frequently—from the Food and Agricultural Policy Research Institute (FAPRI), the Australian Bureau of Agricultural and Resource Economics (ABARE), and the World Bank. In addition, although USDA did not publish cotton price forecasts, its Interagency Commodity Estimates Committee (ICEC) for cotton calculated unpublished estimates of world and domestic cotton prices each month. In recent years, USDA and other agencies have observed systematic errors in their cotton price models, highlighting the need for a thorough review of price relationships. The removal of the ban on cotton price forecasting by USDA in the 2008 Farm Bill heightened the need to review existing cotton price forecasting procedures and to develop a new forecasting model.

This report develops a theoretically based reduced-form specification for a cotton price forecasting model. Like earlier models for cotton (Meyer, 1998; Valderrama, 1993; Goreux et al., 2007), wheat (Westcott and Hoffman, 1999), corn (Van Meir, 1983; Westcott and Hoffman, 1999), and soybeans (Plato and Chambers, 2004; Goodwin et al., 2005), the U.S. season-average farm price is a function of U.S. stocks/use. Other variables include U.S. and world cotton supply and a set of shift variables accommodating circumstances particular to cotton markets. The empirical version of the model includes a demand shifter for China's trade and another shifter for the impact of U.S. commodity policy. Testing indicates evidence of structural change, which is likely the result of the U.S. shift from domestic cotton consumption to exporting, and the model is adjusted to include impacts of foreign supply.[2]

[1]In 1929, Congress passed legislation forbidding USDA from publishing cotton price forecasts (see Townsend (1989) for a discussion of the circumstances surrounding this legislation).

[2] Foreign supply is an important factor for U.S. cotton prices because the United States, as one of the largest producers and exporters of cotton in the world, directly competes with cotton coming from other countries.

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