

Executive Summary

In this paper, we model and forecast volatility of cotton returns by incorporating information extracted by techniques of machine learning into the long-run component of a GARCH-MIDAS model. We investigate the co-movement between the level of the certified stocks and the cotton volatility along with the relationships between the cotton price volatility and its fundamentals. Our results reveal that the cotton fundamentals contain predictive information regarding future cotton volatility beyond the historical volatility. The forecasting results with a method of machine learning outperform their counterpart estimated with realized volatilities in a fixed window. This evidence is not only significant over short horizon but also over long-term horizons.