Dynamic Behaviour of Red Onion Prices in Jaffna District

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ABSTRACT. The aim of this study is to explore and compare the stochastic behavior of price changes of onion in Jaffna district, Sri Lanka between January 1, 2008 to May 19 and June 6, 2009 to December 30, 2010. The data used in this study was collected from Jaffna weekly Vegetable markets. The sample period is divided into two periods, i) January 1, 2008 to May 19 , 2009. And ii) June 6, 2009 to December 30, 2010.

Result of this study reveals that the price behavior has changed significantly in its stylized facts of price behavior during these study periods. The price series shows a linear upward trend with fluctuations in the period I and an exponential trend with fluctuations in the period II. The volatility of this price changes in the period II is higher (SD=25.11) than the period I (SD=12.69). While the price series behave with leptokurtic distribution (fatter tail) with outliers in the period II, the series behave with platykurtic distribution in the period I. Estimated Kernel distributions show that both price distributions are not normal. Phillips-Perron test shows that Price series behave as nonstationary with I (1) in both periods. This shows that shocks have a persistent effect on the level of the series in both periods.

The results of this study will help Modelling and forecasting the weekly price behavior of onion.

Key words: Price Volatility, Stylized Facts, Fat Tail.

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