

(i) Is the contribution of the paper potentially significant?

The topic of the paper is potentially significant. Most of the literature on price analysis is looking at the market for a single homogeneous product, and look how prices are related over space (market integration, eg. Ravallion, 1986; Dercon, 1995; Van Campenhout 2007) or in time (Ng, 1996). In this paper, the author relates time series of prices of one product, conventional pineapples, to time series of the prices of another product, organic pineapples. Since they are different products, the prices should not be the same. But they are related because, in a way, the products are substitutes. Looking at price correlations is therefore interesting. However, I don't think the analogy to market integration is valid. See below.

(ii) Is the analysis correct?

I don't think that the threshold autoregressive model is the most appropriate model for this analysis. In the case of spatially separated markets, there is a solid economic theory (the law of one price in a context characterized by positive transaction costs) that justifies the use of a piecewise linear model with a threshold. If the price difference between the same commodity in two spatially separated markets falls below the transaction cost, arbitrage will not take place and so demand and supply will move independently in both markets. If the price difference is above the transaction cost, profits can be made by shipping the good from the low price market to the high price market. The increase in demand will lead to a rise in the low price market and the increase in supply will reduce the price in the high price market. So above the transaction cost, prices will move towards each other. Note that the threshold is a well defined quantity.

I find such an theory lacking in this article. I don't really see a strong reason as to why a piecewise linear regression should be more appropriate to describe the relationship between the price difference between organic and conventional pineapples and its lagged value than a linear. Yes, if yesterday, organic pineapples are much more expensive than conventional ones, it is likely that they are going to buy more conventional and less organic, making the gap smaller over time. But why should this process be different for small vs large differences in price. The author hints at menu costs, but in that case, a quadratic form where smaller price differences are more persistent than large price differences would probably be more appropriate. Indeed, the author admits that in the study, the threshold cannot be expected to be the same for all consumers. Even within the class of self exiting threshold models, there are models that may be more appropriate for the study at hand, such as the smooth transition threshold autoregressive model (STAR; Balke and Fomby, 1997)

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