

Discussion of selected papers presented in “Price Analysis of Foreign Markets”

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Dynamics of Polish Wheat Prices in Comparison to Selected World Prices

in a Period of Economic Transformation: Szczepan Figiel

This paper uses regression and cointegration techniques to investigate whether openness of the Polish economy has led to convergence between Polish and Western grain prices. The phenomenon of long-run equilibrium between prices has led to an abundance of research papers using cointegration techniques to test for linkages between markets in recent years. This paper attempts to test this relationship.

This paper concludes that there does not seem to be convergence between Polish and Western grain prices. It would, however, be interesting to test whether this same conclusion is obtained when the fact that trade takes time (and hence contemporaneous prices are not used) and transportation costs are taken into account¹. These two extensions might make the paper even stronger.

Also, it seems (although not explicitly stated), that this paper uses a two-step procedure (Engle-Granger) to test for a stable cointegrating relationship between pairs of wheat prices. However, such tests are limited by (a) the fact that cointegration considerations are confined to pair-wise comparisons, and (b) such tests require one of the two prices to be designated as exogenous. Also, Engle and Granger’s testing procedures do not have well defined limiting distributions, and as a result, do not offer

¹ Goodwin, Grennes and Wolgenant (1990) point to transportation costs as a major contributing factor to the rejection of the LOP. Goodwin (1992) confirms earlier research (using cointegration analysis) that the LOP is not rejected for international wheat markets when transportation costs are recognized. Empirical

straightforward testing procedures. As price relationships in international wheat markets involve simultaneous determination of several individual market prices, and, given the drawbacks of the two-step procedure, this paper should consider joint cointegration tests. Specifically, the use of multivariate cointegration tests introduced by Johansen (1988), and Johansen and Juselius (1990) may influence the cointegration results found in this paper.

In summary, this paper is well written, timely, and interesting. The conclusions could be further strengthened by utilizing multivariate cointegration techniques, adjusting for transportation costs, and taking into account the fact that trade takes time.

Economic and Environmental Impacts of the Post-1992 CAP Reforms on Alentejo

Economy of Portugal: Amilcar Serrao

This is an interesting paper that utilizes the familiar input output (I-O) analysis to assess the impact of Post CAP reforms on incomes, employment and environment in four regions of the Alentejo regions of Portugal. The I-O methodology has been widely used to analyze and shape policies regarding the environment and for economic development. This paper applies the I-O methodology to assess these factors, but could be made into an even stronger paper, if some of the limitations of the methodology were discussed. Awareness of these limitations is crucial to an effective evaluation of the results. In addition, some of the unknown assumptions made in the paper may have an important bearing on the results obtained and discussed.

Typically, input-output analysis has two problematic assumptions: fixed coefficient production functions and perfectly elastic supply curves. One obvious implication of the latter assumption is that results can be questionable if large exogenous variable changes are modeled. It is not clear if the author

research has also found greater support for the LOP when delivery lags and price expectations are accounted for.

made or relaxed these assumptions. There are, however, some input-output techniques that relax these restrictive assumptions².

Many economists question I-O models because, in many cases, they limit essential economic relationships, i.e., they don't allow demand and supply curves to function. There might be important gains to be made by extending the basic I-O methodology used in this paper, in order to ensure the results obtained are accurate for policy simulation.

An elaboration as to how the changes in environmental variables were derived would also strengthen the paper. Previous efforts have imbedded the environmental variables directly into the I-O model. For example, fertilizer usage is considered an input along with labor and seeds. The implementation of the I-O model then automatically gives changes in environmental variable usage. Clarification as to whether this method or a separate technique was used in this paper would be useful.

In all, the paper presents an interesting application of regional economic modeling. The authors could elaborate on the exact assumptions used in the I-O model, in order to clarify the interpretation of the results. Extending the methodology would make the paper even stronger.

Effects of Dutch Mineral Policies on Land Prices:

Maroeska Boots, Alfons Oude Lansink, Jack Peerlings

This paper uses a short-run micro-economic simulation model to illustrate how land prices, and the demand for land for individual farms is influenced by a phosphate surplus tax. A wide range of techniques are employed in this study, and it is consequently a rather lengthy paper. It could be further improved if there was more attention given to a several issues. For instance, the demand for land seems to be derived with reference to short-run marginality conditions, yet the authors use the term long-term

² For instance, many papers written by George Treyz address this possible expansion. See for example, "Policy Simulation Modeling" in *Microcomputer-based input-output modeling: Applications to Economic Development*, 1993.

profit maximization. Also, it is not entirely obvious as to why the profit maximization (eq.6) is considered to be long-term.

The results could also be explained in more detail. For instance, a more detailed description of why corner solutions are obtained in the full simulation exercises might make the interpretation of the results clearer. Also, for example, the study suggests that elasticities of land demand decline when the tax is included. An explanation as to why this occurs would make the interpretation richer.

The paper focuses on the individual Dutch farmer, but later suggests that the model ignores transportation costs which differ between farmers, implying they are ignoring individual differences. More consistency might lend stronger structure to the model. Specifically, if the study focuses on the individual farmer, all elements of the model should be based on the individual.

The paper uses time-series data and aims to look at the effect of a surplus tax. One simple method of evaluating whether the tax has had an impact, is a test for structural change (e.g. Chow test (1960)). This might be an interesting, and relatively easy exercise. In all, the overall result is intuitively clear: a phosphate surplus tax is an effective mechanism for reducing mineral surpluses. A clearer description of some aspects of the model, and a more detailed analysis of some of the results might further improve the paper.

Maize Markets and Storage in Mozambique:

Channing Arndt, Rico Schiller, Annelotte Philipsen

This paper has two foci. First, the consequences of differential interest and storage costs on the spatial/temporal commodity marketing patterns are examined, and second, the advantage of the Mixed Complementarity Problem (MCP) formulation in solving the problem is demonstrated.

The paper is very well written, but a more complete documentation of the model would make it easier to follow³. Specifically, many other papers have been formulated using an optimization approach, and it is not entirely clear what advantage (if any) is gained in using the MCP approach.

A fuller description of exactly what supply represents in the paper, or when supply is realized (e.g. once a year, the same in every location?) would further strengthen the paper. A listing of assumptions are available from the authors, but it makes an initial evaluation quite difficult.

The authors mention the role of uncertainty. This would prove to be a challenging extension of the papers modeling. Demand and supply curves are assumed to be linear in the study, and using “real data” (equilibrium prices), welfare measures are undertaken. However, it seems that only equilibrium prices are observed. Evaluating producer and consumer surpluses (where demand and supply curves may in fact be non-linear) may lead to large inaccurate evaluations of changes in consumer and producer surpluses. A fuller description of exactly who must pay the costs in terms of welfare changes, would make the conclusions even stronger. Nonetheless the message of this paper that high interest and storage loss rates may cause grain to flow out of rural areas where they would otherwise be stored in the absence of urban/rural differentials is an important one. A fuller description of some issues could only make the paper even stronger.

³ Like all papers, this is clearly difficult given the size limitation of the papers.