

## Referee's Comments on: "Potential Trade Distortion Effects of State Trading Enterprises under the Tariff-Rate Quota Scheme"

*Jung-Hyun Yoon and Song Soo Lim (2013). Potential Trade Distortion Effects of State Trading Enterprises under the Tariff-Rate Quota Scheme. Economics Discussion Papers, No 2013-22, Kiel Institute for the World Economy.*

<http://www.economics-ejournal.org/economics/discussionpapers/2013-22>

The paper presents a theoretical as well as empirical analysis of the potential trade distortion effects of state trading enterprises (STE) on soybean imports to Korea. As a benchmark the first theoretical model is introduced where the goods produced locally and imported are solved. Compared to the benchmark level, the potential trade distortion impact of STEs import is theoretically derived under three different objective functions of the STEs.

These three different cases are profit maximising, producer welfare maximising and consumer welfare maximising. The first case shows that import is less than the benchmark level. The second case shows that the quantity of imports is minimised and that trade distortion is even higher compared to the first one. In the last case, where STEs try to maximise consumer welfare, prices are set on the demand curve and thus monopolist profit is denounced. As a result it leads to import expansion with lower trade distortion effects compared to case 1 and 2. Some interesting results.

However, I have deep concerns regarding derivations, empirical results and other issues.

### Weaknesses and Shortcomings:

Normally when we (researchers) are using some variables, name or notation we have to spell out explicitly what it represents or stands for, but there are several terms which are not clear. The term inverse function is used for 'P' but it is not clear why it is called so. The authors don't think it necessary to elaborate as to why it is called so.

In eq (1) 'a' and 'b' are not defined as to what they are? Similar is the case with 'f, F and k' in eq (2) and 'Pw' in eq (4) or 'K' in (6)-(8).

In (5) and (6) the term  $(n+1)$  should be  $2n$  and 'K' should be mentioned explicitly as to whether it is 'k' or something else. In eq(6) the term  $b(n+K)(n+1)$  should be  $2n(b+k)$ .

So both (5) and (6) are in error and anything depending on these relations or derived from them should be in error. Even if these two expressions are taken as they are the next two derived from them i.e. (7) and (8) are incorrectly derived. The denominators are especially unusual, same terms multiplied e.g.  $(n+1)$  with  $(n+1)$  and  $(b+k)$  with  $(b+K)$  but not written as squares while the last term  $b(n+1)$  is squared clear negligence and carelessness. In fact  $q^d$  (and hence  $Q^d$ ) can be derived by multiplying (5) by  $(n+k)$  and subtracting the result from (6), but (7) is a completely different expression. Similar is the case with (8), also written very childishly.

It is useless /meaningless to expect that (12) and (13) or the other results could be correct because similar procedure is used to derive these expressions. Any conclusions drawn on these erroneous expressions could not be valid.

Mathematical models are first validated using existing published results or experimental data, only the predictions about specific cases could be made using such models. Something supposed, even if

based on sound arguments, cannot be considered appropriate to predict or estimate something for special cases. The foundation stone being wrong cannot result in a right building.

I hope these comments will be sufficient to let the authors understand the casual dealing of their expressions. Thorough derivations, rechecking and explicit mentioning of all constants and variables concerned, should be stressed.