# A referee report on the manuscript: *Juha Tervala: "Technology Shocks and Employment in Open Economies".*

The purpose of this manuscript is to present a two-country open economy model by slightly extending the model by Betts and Devereux (2000, *Journal of International Economics*) to allow for (i) productivity shocks and (ii) staggered price setting a la' Calvo-type in order to demonstrate a negative relationship between a positive technology shock and a temporary decline in employment. The argument goes as follows: Higher technology appreciates the nominal exchange rate and under producer currency pricing this appreciation shifts global demand away from domestic goods to foreign goods so that there is a temporary decline in domestic employment.

The manuscript proceeds as follows: Introduction presents a survey of the existing related theoretical and empirical literature. Section 2 presents a two-country general equilibrium model to analyze theoretically the relationship between technology shocks and employment. Section 3 elaborates several numerical simulations before Conclusions - part.

Given the starting points the focus of the manuscript is important in terms of countries which are not members of the monetary unions. There are some problems in the current version which I mention in what follows:

(1) It is important to discuss a bit more about the elasticity of substitution between domestic and foreign goods in section 3.1. It is useful to refer more to empirical literature, see. e.g. Dekle (2005) and Lopez and Pagoulatos (2002) and check in numerics what are the implications of different parameters. This is because elasticity of substitution varies across various countries.

(2) Concerning the representative household preferences (see equation (1), p. 5) this assumption is very strong. An important question is to study the implications of more general preferences for instance in terms of consumption part of utility function both theoretically and also in numerical simulations, which is the main focus of this manuscript.

(3) The production function (11) is section 2.3.1 is relatively simple. What is the reason for that? Of course your reference literature there is more realistic assumptions sometimes. This should also be discussed and try justify the current version or extend it a bit.

(4) Conclusions - section should be extended by focusing more precisely the results associated with the manuscript. You should provide a more precise elaboration in terms of what you have done and what are the main results.

(5) It is also important to emphasize, but only as the new research topic associated with the relationship between technology shocks and employment, a potential new focus concerning what happens if labor markets are not perfectly competitive.

*Some minor comments:*

(6) In footnote 1 you mention different empirical findings concerning the relationship between technology shocks and employment. It is important to evaluate different findings more precisely, i.e. what is the reason that in some papers technology shocks have a negative effect on employment, in some papers the other way round. This should be elaborated.

(7) On page 3 and 4 you mention the paper by Collard and Dellas (2007). It has now been published in *The Economic Journal,* 117, 2007 October, 1436-1459.

(8) In References you say in all cases "Further information in IDEAS/RePEc". In my opinion this is not reasonable.

References:

Dekle, R. (2005): Exchange Rate Exposure and Foreign Market Competition: Evidence from Japanese Firms, *Journal of Business* 78, 281-299.

Lopez, E. and E. Pagoulatos (2002): Estimates and Determinants of Armignton Elasticities for the U.S. Food Industry, *Journal of Industry, Competition and Trade* 2, 247-258.