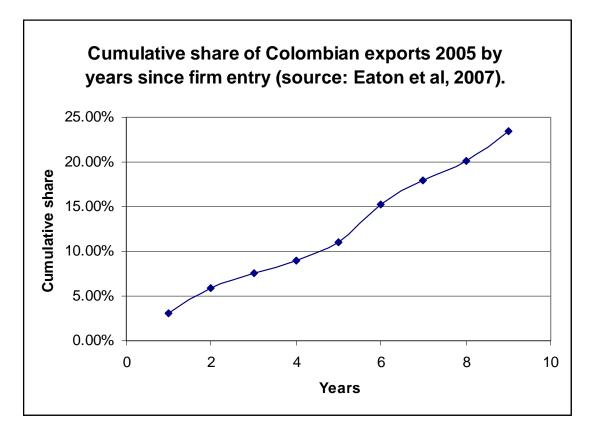# Globalisation as a 'Good Times' Phenomenon: Response to Referee no 1.

First of all, I should like to thank the referee for his/her comments, which were useful and thought-provoking. In particular, triggered by this referee's comments, I have rewritten and expanded Section 5 of the paper, on endogenous policy responses, incorporating some review on empirical evidence for search and some numerical simulations. I hope these are of interest.

'*The whole mechanism that differentiates whether the tariffs are desirable or undesirable hinges on the relevance of the most elastic tract of the cost curve, that represents the aggregate mass of marginal searching firms. Are we sure that this group of firms is large enough to matter? In the stylized facts about globalisation stated in the Introduction to motivate the paper, this crucial quantitative aspect - i.e. the presence of a large mass of networks destined to break up in the next period - is never quantified. The paper would offer a very successful and pathbreaking explanation of trade policy if the author could calibrate the ratio of searching to non-searching pairings to convincingly realistic values.*'

This is a very interesting comment, which has required some further work, covered primarily in a rewritten *Section 5*, but also referred to briefly in the introduction. There is an expanding body of research into firm entry and exit, but this has rarely been formalised into an analysis of forward-looking search per se, probably because most databases have relatively short time-spans. Besedes and Prusa's (2006) study of US imports suggests a 1 year average turnover for new products entering the market. In a model of industry dynamics, these would then be replaced by other new entrants in a repeating cycle. Eaton et al's (2007) study of Colombian exporters shows even faster exit rates (83% of entrants in 1997 left after 1 year), but continuing high exit rates in the second year (38%) and third year (10%) after entry. The number of firms entering in any one year is very large compared to the overall number of firms in the market (for example, in 2005, there were 5060 firms which had been exporting for less than a year, out of 11,720 exporters): however, firms exporting in the first year tend to export very small amounts. The scale of survivors each year then increases steadily over at least a decade, as they expand their networks of customers. The share of total

sales by firms of different age vintages is shown in the figure below - given the high exit rates for the first 3-4 years we can certainly argue that at least 5-10% of sales should be considered searching exports, but given the continuing build-up of customers per firm over 10 years, we could also view all firms with less than 10 years in the market as being searchers (which would imply nearly 25% of total sales). A slight caution here: Colombian exports tend to be dominated by flower-growers, who can enter foreign markets easily and are less tied to a single customer (e.g. by blueprints) than exporters from other countries in other industries might be.

Cumulative share of Colombian exports 2005 by years since firm entry (source: Eaton et al, 2007).

An alternative argument that search is quantitatively significant is given in Edwards and Ferrett (2009), based upon the idea that merger with a downstream supplier usually gives better coordination and security, whereas inter-firm trade benefits from flexibility, and so is associated with search or experimentation. The diagram below, from Spencer (2005) shows both that outsourcing (the grey areas of the bars) is significant in China's manufacturing exports, but also that Foreign Direct Investment is growing over time - suggesting a search process gradually leading to more settled relationships. Again, this needs to be taken somewhat tentatively.
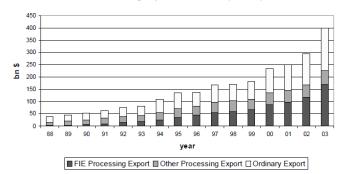
Manufacturing Exports from China (bn $US)

Figure 1: The Growth of Chinese Manufacturing Exports ($US), 1988-2003

While I think full calibration of the search model would require very detailed data, not all of which would be available, some numerical simulations are, justified, in order to compare with the data above. For this reason, a numerical simulation version of the model,.calibrated to an outsourcing-based industry importing into a stylised large, Northern economy, has been carried out. This is summarised in *Appendix 3*, which is new. More attention has been paid to the issue of profit-shifting, which is a significant potential complication in the argument. Simulations in Appendix 3, Tables 1-3, indicate results compatible with the predictions of the paper, in that, so long as the growth rate of trade exceeds a threshold, the presence of searching firms reduces optimal tariffs to zero.

Regarding the referee's technical points:

1. The analysis misses a dynamic dimension, which may lead the reader to doubt about

the actual time span in which the effects mentioned work. Moreover, in a fully

modelled expansionary scenario (phase 2), the search model sketched in the

Appendix would need qualification, as the searcher's value functions should take

into account that prices in period t+1 might not be identical to prices in period t.

While I conjecture that the main insight of the paper is robust enough, resolving the

apparent contradiction between steady state arguments and macroeconomy transition

could be helpful for the more technically oriented reader.

This is again a very interesting comment and, I think, valid. As regards searching prices, the model setup here has largely been designed (with match quality affecting fixed costs, rather than variable costs and

hence not affecting theshold entry prices) following Grossman and Helpman to ensure a relatively stationary environment. This simplifies analysis, though at a possible cost in terms of realism.

I have not carried out detailed dynamic work on the model as yet, but the discussion has been amended to point out that the natural and exogenous death of firms (at rate D) will shorten demand crises, and eventually restore search to the model. However, I have also widened the discussion to cover the possibility of a crisis being followed by a prolonged period of demand stagnation (a 'lost decade' as Japan and Latin America have experienced in the past - or even a slowdown as experienced in S.E. Asia post-1997), and hence Section 5 now covers in more depth the issue of a trigger growth rate, above which optimal tariffs potentially fall to zero, but below which the economy can revert to protectionism.

2. Page 24: in figure A2, shouldn't the probability of future separation be MUr instead of 1-MUr?

This has been corrected. Thank you for the comment.