

Globalisation as a ‘Good Times’ phenomenon: response to referee no 2.

First of all, I should like to thank both referees for their comments on this paper, which I believe are both constructive and perceptive. Perhaps slightly unusually, I am responding to Referee 2 first, simply because Referee 1 raised some substantive points which require more substantial work, which is currently underway.

On the points raised by Referee 2:

1. **The impact of a higher death rate, D .** The referee is correct in suggesting that this has some effects upon the reservation match quality, μ_R , very similar to raising the interest rate, as can be seen from equation (5)

$$\mu_R = 1 + \rho + D - \sqrt{(\rho + D)(1 + \rho + D)}. \quad (5)$$

This would indicate that faster firm death makes firms less ‘picky’, so that higher D leads to faster mergers on average. Against this, however, in a steady-state growth model we have

$$\frac{N_{s1}}{N_{m1}} = \frac{G + D}{1 - \mu_R}. \quad (10a)$$

Higher D raises both the numerator and the denominator of (10a), so the effect upon the proportion of searching firms is not immediately obvious. However, numerical simulations for a variety of values of G suggest that higher firm death rates lead to a higher steady-state growth share of searching firms (i.e. the effect on the numerator of (10a) outweighs that on the denominator). This may not, however, apply out of steady-state equilibrium.

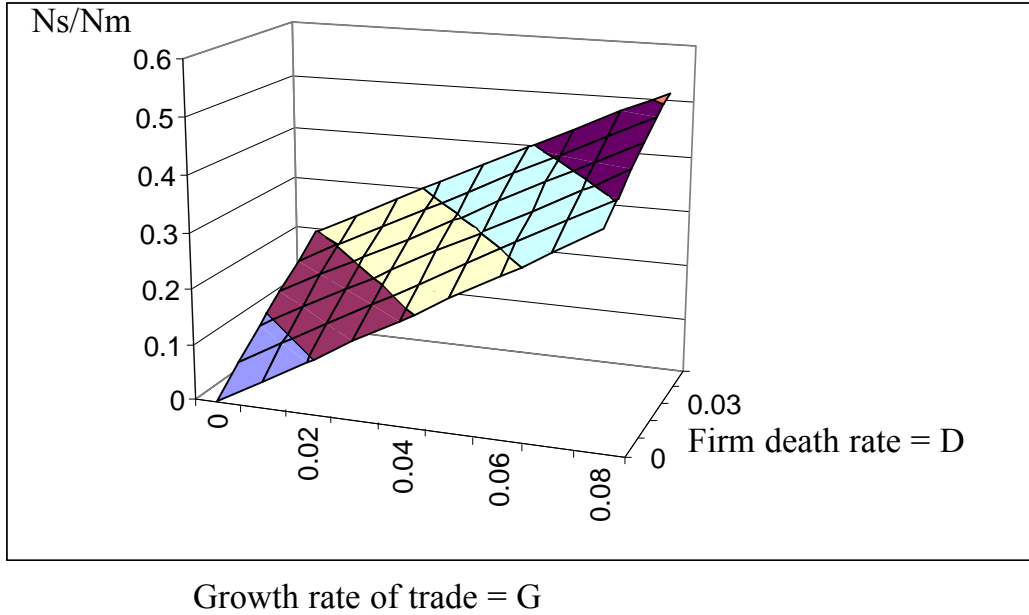


Figure: effect of firm death rate and trade growth rate on the relative share of searching to matched firms in the long run. $\rho = 8\%$.

One effect of faster firm death, in the instance where countries do switch to protectionism, following a crisis, would be that the existing firm stock decays faster. This would shorten the time before new entry of trading firms resumes - hence higher D would probably shorten a protectionist phase.

2. Why is it the foreign firms that are doing the searching, and does this matter? I think this may be a slight misunderstanding, which indicates that I will need to make some drafting changes to remove ambiguity. The search process is two-sided, but the model has been set up for simplicity in a symmetric fashion, with the surplus from any match split 50-50 according to Nash bargaining, so that it is possible to model the search just from one firm's perspective. There are more complicated model variants where this does not apply (particularly when there is sequential trade liberalisation with a variety of countries, all with different comparative costs), where modelling the bargaining/contracting and search processes becomes much more important, but the model in this paper is simple.

3. Kinks to the supply function and threshold effects. The referee is correct to say that a threshold effect is required to produce a sudden switch from zero to a substantial optimal tariff. In this case, the threshold effect is produced by the assumption that firms have an equal entry cost, before they

find a satisfactory partner (and this constant, equal cost remains the long-term value relevant for searching firms to remain in the market). However, once firms have found a long-term partner, they are in long-term matches ranging in efficiency from μ_R to 1.

It might be possible to have a kinked supply function without the threshold effect - particularly if firms are heterogeneous both before and after entry. For example, firms' efficiency may depend both on some intrinsic efficiency level which is observable prior to entering the international market (as in the Melitz model) and on the quality of their trading match. In this case, the supply curve for searching firms would be flatter than that for matched firms, but not perfectly elastic. In this case, intuitively I would still expect a potential switch in optimal tariff following a crisis, but it would be from a low tariff to a high one (rather than from zero to a high tariff).

4. Combination of interest rate and demand effects. I have dealt with these two effects separately, with *Figures 4-5* showing a negative demand shock and *Figure 6* showing an interest rate shock. In practice, as the referee says, these shocks will probably occur together, although I am not sure whether an extra diagram is necessary to show that it is again the searching firms which are knocked out.

5-6. Foreign demand/balanced trade/general equilibrium effects. I am appreciative of these comments, and will take account of them in redrafting. A critical point here is the balance to be struck between a relatively simple model (which is what I have sought for) and a highly complex one which captures some effects more accurately.

While most 'optimal tariff' work is certainly based upon a general equilibrium framework, it is certainly possible to examine a small industry in a partial equilibrium setting. Many textbooks contain a 'large country, partial equilibrium' exposition (for example, Van Marrewijk's *International Economics*, Figure 8.4): this is the analysis which I am extending here. The country is assumed to be large in the sense that it can affect the supply price at which it obtains imports.

The reason why I have opted for a partial equilibrium setting is because analysis of matching and search is much easier in a stationary environment (this is also the reason I have assumed match quality affects fixed costs, rather than variable costs, which as an assumption Grossman and Helpman also make for similar reasons). In a small industry, partial equilibrium, we can take the wage rate as given, which helps maintain

a stationary matching environment. A general equilibrium model with a larger industry might complicate analysis somewhat, because total labour demand will change over time, as the matching process unfolds, leading to changes in the wage rate. Modelling this would probably not drastically affect the conclusions of the model, but we would need to work with disequilibrium dynamics and the analytical exposition would consequently be harder.

Concentrating on the ‘large country, partial equilibrium case’, the referee raises a good question on whether a country should be considered ‘large’ in this context. My response is that this is probably so, since a country is ‘large’ if its overseas suppliers are specifically tied into supplying it. That is one aspect of the matching model: foreign upstream firms, who have found downstream partners in a particular Northern country, are tied to those purchasers (unless they want to restart the search process for a partner in a different Northern country). This suggests that a Northern country will have significant monopsony power vis-a-vis well-matched upstream suppliers, even when rival Northern countries are present. I shall address this point in redrafting.