Vertical Production Networks: Evidence from France

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We are quite astonished by the referee's report, mostly on the lack of interest of the paper on account of its copying the paper by Hanson, Mataloni and Slaughter (HMS). The main objective of the paper was definitely to mimick the one by HMS with French level-data. The question of international comparisons in international economics is an essential one, but it is very difficult to make such comparisons using individual data for reason of confidentality. Moreover, in order to compare results one need to use similar technics! It seems more important than to try to develop a "new" model for the pleasure to have a new model (probably not so new in fact). If there is a convergence in the results, then we could think that the model is consistent.

Nonetheless, due to the different nature of data across countries, the paper could only evolve differently and stress different aspects of multinational firms behaviour. By trying to mimick, we could test for similitudes and differences between the US and France but our failure to do it properly has led us to investigate further into outsourcing/insourcing by testing for example if the labour or capital content of products had any impact on the intra-firm trade of multinationals.

More specifically, we can organise the reply according to the points developed by the referee.

1. On the meaning of the first remark: any empirical research needs to be published one way or the other. If our intention at first was to replicate the study by HMS, it seemed interesting to stress why it is not that easy when the surveys are different across countries, how you try to get the samples and the econometric method closer but with no complete success. Therefore, we had to bring in innovations relative to HMS:

- first, the sample was broken down in two sub-samples: developed and developing countries,
- second, labour productivity in the host country was ushered into the regression. The difference in the logarithms of the coefficients of wages per employee and labour productivity gives more insight on unit wage costs,

- third, a dummy was set on whether parent companies sub-contract to firms located in host countries or not. A special relationship link the parent companies to these firms. It is not completely arm's length trade. It is interesting to focus on this type of trade in so far as in some industries, trade is performed through this channel and not through the affiliates (textiles for example). This gives a closer idea of how vertical production networks can be tipified beyond the intra-firm flows of business,
- fourth, in order to investigate further the horizontal dimension of FDI, we wanted to test the market potential variable on two different samples: one with affiliates exporting their production back to France and another one with affiliates not exporting back their products to France. Moreover, we separated out labour-intensive from capital-intensive products. Results are shown in Table 10 of the paper.

2. Our objective is to test for the determinants of intra-firm trade of French multinationals in order to compare with the study by HMS. Nonetheless, as stated in point 1, we introduced some new variables that could be more consistent. We accept the second part of point 2 and will try to clarify the text, quote and add Navarety and Venables as a reference.

3. Remark three is correct: we will get rid of table 1 and its comments but keep figure 1.

4. the empirical literature referenced in our paper can give some insight as to the determinants that can be reasonably added in the HMS model without bumping into the problem of unfeasability. Maybe, we could give more attention to some other variables.

5. C is the host country of the affiliate and p the French parent company. As to the question whether it would have been better to take relative wages, it is not sure it would have changed something. The referee's worry about the dependent variable being at the firm-level while the independent ones are at the country level is fully justified and has also been ours. Therefore, we have applied the Moulton correction, i.e. cluster the standard errors to allow for correlation in the disturbances across observations within countries (see section 4.1 of the paper).

6. For sure, we would have preferred to get all variables we needed in the same database. A discussion on how it could affect the results is an idea. OK for the remark with regards to section 3.2.

7. Section 4.1 is titled “A common strategy that does not work”: it is a paragraph (no more than a few lines). Section 4.2. is devoted to the alternative dependent variable as due to transfer prices, a lot of observations (the intra-import share in the turnover of affiliates) are above one. Then, we orthogonalised this variable using the labour productivity of the parent company. In the US, the correlation between the affiliates labour productivity and the one of their parent company amounts to 85% on average in the manufacturing sector. We do not use the original shares but the estimated ones. It is a mistake in the footnote: it should have indicated it is an orthogonalised variable.

8. See point 7. We don’t get the referee’s point. In point 7, it was said we did not have to use an econometric method to get a more reliable regressand as the share above 1 is due to transfer pricing. In any case, as said in point 7, we have used the estimated variable.

9. At least, we tried to have conclusions.

Thanks for your attention.