

## **Review report on “Vertical Production Networks: Evidence from France” (Fouquin, Nayman & Wagner)**

Essentially, the paper mimics the analysis of Hanson, Mataloni and Slaughter (2005, henceforth: HMS, see paper for reference), with data from French MNEs. The way this is done leaves much to be desired, though, both methodologically as well as in terms of exposition and discussion of results. Moreover, I don't think it is useful to copy another paper for no other reason than that of having data for another country. The paper does not make clear why it would be interesting to investigate FDI in relation to affiliate production and intra-firm trade with French data, while also a good theoretical foundation for the tested relationships is lacking. As a consequence, I don't find the paper suitable for publication in Economics.

More concretely, I have the following main issues with the paper:

1. As noted, the relevance of the research question is highly unclear. The aim appears to be to redo the analysis of HMS with French data, which is of course sufficient reason to do empirical exercises but not to write a paper. Consequently, the authors should provide clear reasoning as to why such an exercise warrants a paper apart from that they have data for France.
2. The introduction is very unclear and does not motivate the research question (which is unclear by itself, to say the least). It is also vague regarding the other issues it contains. Also, the introduction makes a caricature of what MNEs constitute and why they are formed. I would suggest the authors read Barba Navaretti & Venables (2004) to get updated on issues pertaining to MNEs. This will also facilitate a clear positioning of Vertical Production Networks (VPNs) in the MNE-spectre, serving to make clear how VPNs differ from vertical and horizontal FDI in general. (at some instances in the paper it is as if VPN is the same as vertical FDI, but that of course cannot be generally true).
3. Section 1.1 is redundant. Given the paper as it is, a comparison between US and French MNEs is relevant, but this is done in section 1.2. There one would like to see, if any, a more detailed comparison, for instance over time as well. Should the authors want to retain to section 1.1, I note that the first two sentences of the conclusion at the end of 1.1 incorrectly summarize the data presented.
4. Section 2 carries as title “A model of vertical integration”, but this is not what it does. Instead, the section uses some empirical literature (working papers!) to back up an empirical relationship that is mainly taken from HMS. So why not simply say: see their paper for any substantiation of the relationship to be tested? It would be more illuminating and probably also more rewarding to devote a section on a review of the theoretical literature on vertical and horizontal FDI in relation to affiliate production and intra-firm trade, then relate this to what has been done empirically on this and conclude by formulating some expected relationships for testing. Certainly, this will allow the authors to ‘trace the determinants of intra-firm trade for French multinationals’ (p. 10) in a more meaningful way than they do now.
5. There are also some issues regarding the estimated equation in Section 2 (apart from that it is not well explained, e.g. ‘c’ refers to the host country?). Partly this is because there is no theoretical justification (why include these variables and omit others? Why use absolute wage levels and not wage levels relative to the partner country?), but it also worries me that some of the independent variables are at country level of aggregation (wages, productivity), whereas the dependent is at sector/firm level. A motivation as to why this is the case and why it (apparently) does not matter is warranted.
6. The method of combining the two databases is understandable (Section 3), but apparently it does not work (as results do not easily follow, but see also below). A discussion on how the ‘aggregation of databases’ could affect results is therefore warranted. Section 3.2 does not warrant a separate section; a footnote will do.
7. Section 4 can be considerably shortened. Apparently, testing the relationship for the whole sample does not work, but to devote pages on that to come to that conclusion is a bit much. Why not immediately turn to the preferred specification, with a brief motivation why this is the preferred one? As such, one could argue that section 4.1 is completely redundant. A more serious problem is

perhaps that much of the relevance of the section has to do with the fact that the authors find shares greater than one highly problematic. But when doing their preferred regression, the authors simply use the original shares again (see note to Table 6; the headings of both columns in this table are incorrect, by the way). So they first make a point that could be valid --- I don't exactly see why. Shares greater than one could be due to the practice of transfer pricing many MNEs engage in, but even then: as long as this is common MNE practice, it will not trouble the results --- to then simply dismiss it again. This is not very consistent and should at least be properly motivated.

8. But there are more problems. The IV-method that is used to get rid of the perceived problem on shares is problematic by itself. If the problem is in the turnover part of the share (as is stated on top of page 16), then constructing a measure for labour productivity by relying on the same turnover (eq. 2) cannot be expected to solve the problem. Indeed, that is what Table 6 actually shows. The issue is then: what next. But as said, the authors simply use shares in their later regressions.
9. Finally, the presentation of results is highly disappointing. It lines up previous points, with some reflection, but the value added is minimal. Especially here it shows that reflecting on results is hard if one has no expectations whatsoever to begin with.

### **References**

Barba Navaretti, Giorgio and Anthony Venables (2004), *Multinational firms in the world economy*, Princeton: Princeton University Press.