Discussion of :

### "IT TAKES (MORE THAN) A MOMENT: REVISITING THE LINK BETWEEN FIRM PRODUCTIVITY AND AGGREGATE EXPORTS "

by G.Barba Navaretti, M. Bugamelli, E. Forlani, G.I.P. Ottaviano

Francesco Pappadà Banque de France

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# Summary

Objective of the paper : explore how the firm productivity distribution of an exporting country is related to its aggregate exports

Key question :

is the first moment (mean) of firm productivity distribution a sufficient statistic to explain aggregate exports ?

Main findings :

- not only average productivity but also the rightward asymmetry and the dispersion of the productivity distribution matter for aggregate exports
- policy implications : strengthen the competitiveness of medium-high productive firms and foster allocative efficiency

#### Theoretical framework and empirical analysis

- The standard international trade model with firm heterogeneity in productivity is not equipped for investigating the dynamics of aggregate trade (e.g. the payment of fixed exporting costs is contemporaneous to the productivity draw)
- the empirical analysis instead introduces a lag between the competitiveness index and the moments of the firm productivity distribution
- what if you regress the competitiveness index on the contemporaneous moments of the firm distribution ?
- how much do the moments of the firm distribution move over the period ?

#### Data

Compnet data on both domestic and exporting firms :

 $\rightarrow$  Theoretical issue : do the productivity threshold move in the same direction for domestic and exporting firms

 $\rightarrow$  The firm productivity distribution (and its higher moments) may be different if we look separately at the productivity distribution of domestic and exporting firms

### **Empirical findings**

 Quantitative assessment of the higher moments of firm distribution on aggregate exports

1. explanatory power : the results show that adding higher moments do not seem to improve the R2 (already very high when the first moment alone is taken into account)

2. gain in terms of country competitiveness due to an increase of one standard deviation in average productivity and Pearson index :

 $\rightarrow$  do you perform a mean-preserving spread ?

 $\rightarrow$  If not, the importance of higher moments could be overestimated : as you show in your slide 3 (motivation), the correlation between average productivity and its std deviation is positive

### Title

"It takes (more than) a moment: Revisiting the link between firm productivity and aggregate exports "

 $\rightarrow$  The title may be misleading : are you interested in the dynamics of aggregate trade flows ? cf. Alessandria, Pratap and Yue (2015), or Alessandria and Choi (2015)

### Suggestions

- Further develop the analysis of aggregate trade dynamics : how much do the higher moments of firm productivity distribution change over time ?
- Can this be related to the changes in aggregate flows ?
- How much do they explain of changes in aggregate exports over time ? (This could be an alternative indicator of the quantitative relevance of these moments on aggregate exports)

# **Final remarks**

- This is an interesting paper on the importance of higher moments of firm productivity distribution on aggregate exports
- Contribution to the international trade-open macro literature : granularity (Gabaix 2011; di Giovanni and Levchenko 2013) show that large exporters account for a large fraction of changes in aggregate exports.

 $\rightarrow$  This paper provides an empirical analysis based on Compnet data and argues that aggregate trade is related to the higher moments of productivity distribution

Policy prescription : (especially for low mean countries) it is more effective to strengthen the more productive firms than rising up the overall mean productivity.

 $\rightarrow$  This is the standard prescription for improving the reallocation of resources : should we really foster dispersion and asymmetry at the expenses of average productivity ?