



***New Developments
In
New Trade Theory***

***The firm-level approach to
international trade
a.k.a. "New New Trade Theory"***

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1. Introduction

- ***Nations** do not trade; it is **firms** that trade.*
- *This simple truth makes it clear that understanding the firm-level facts is essential to good policy making in Europe.*
- *Firm-level analysis should complement the policy making toolbox.*



1. Introduction (cont.)

Sample questions that call for firm-level analysis:

- *What are the features of European firms that successfully compete in international markets?*
- *What policies can further foster their performance?*
- *What policies can promote the participation of other European firms that are **currently excluded from international markets**?*
- *How can European firms best cope with the **adjustment** required by globalization?*
- *What policies can smooth that adjustment?*



1. Introduction (cont.)

- *The analysis of firm-level evidence reveals some new facts on internationalized firms (IFs) that are simply unobservable at the aggregate level*
- *Those facts have motivated recent advances in trade theory, putting the emphasis on **firm heterogeneity***
- *Consequences in terms of trade-promoting measures or adjustment to trade openness are quite different / “old” trade theory*



2. Internationalization is for the few

- **Fact 1 – *Aggregate exports are driven by few top exporters.*** The top 1%, 5% and 10% exporters account for no less than 40%, 70% and 80% of aggregate exports.
- **Fact 2 - *Few firms export a large fraction of their turnover.*** Around 5% and 25% of firms export more than 90% and 50% of their turnover and account for roughly 10% and 70% of total exports.
- **Fact 3 - *Top exporters export many product to many locations.*** Firms exporting more than ten product to more than ten markets account for more than 75% of total exports.



2.1. Superstar exporters

Table 1: Share of exports for top exporters in 2003 and total manufacturing

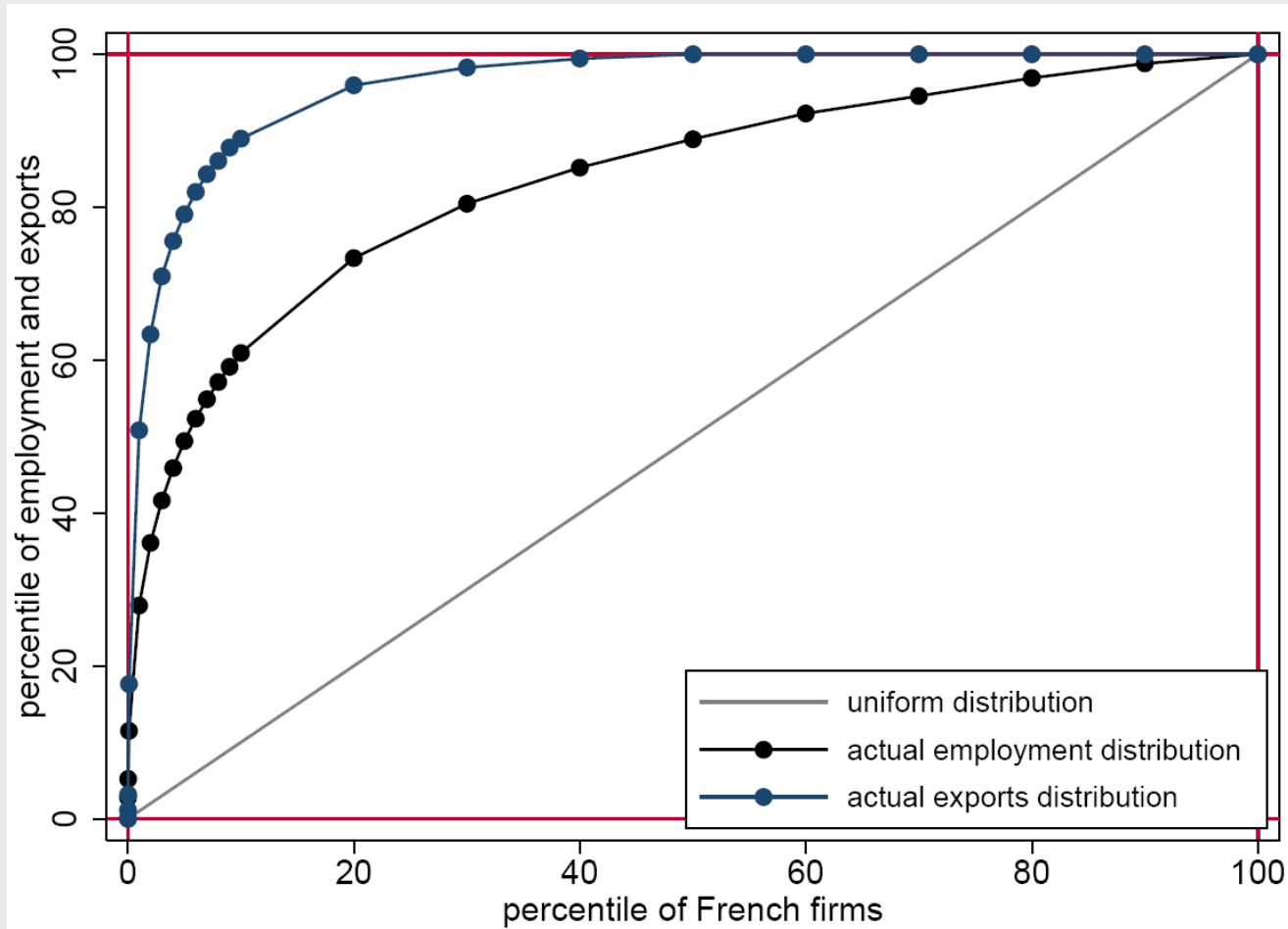
Country of origin	top 1%	top 5%	Top 10%
Germany	59	81	90
France	44 (68)	73 (88)	84 (94)
United Kingdom	42	69	80
Italy	32	59	72
Hungary	77	91	96
Belgium	48	73	84
Norway	53	81	91

Germany, UK, Italy, Hungary and France cover large firms only. Belgium and Norway are exhaustive. For France numbers in parenthesis are percentages on the exhaustive sample.



2.1. Superstar exporters (cont.)

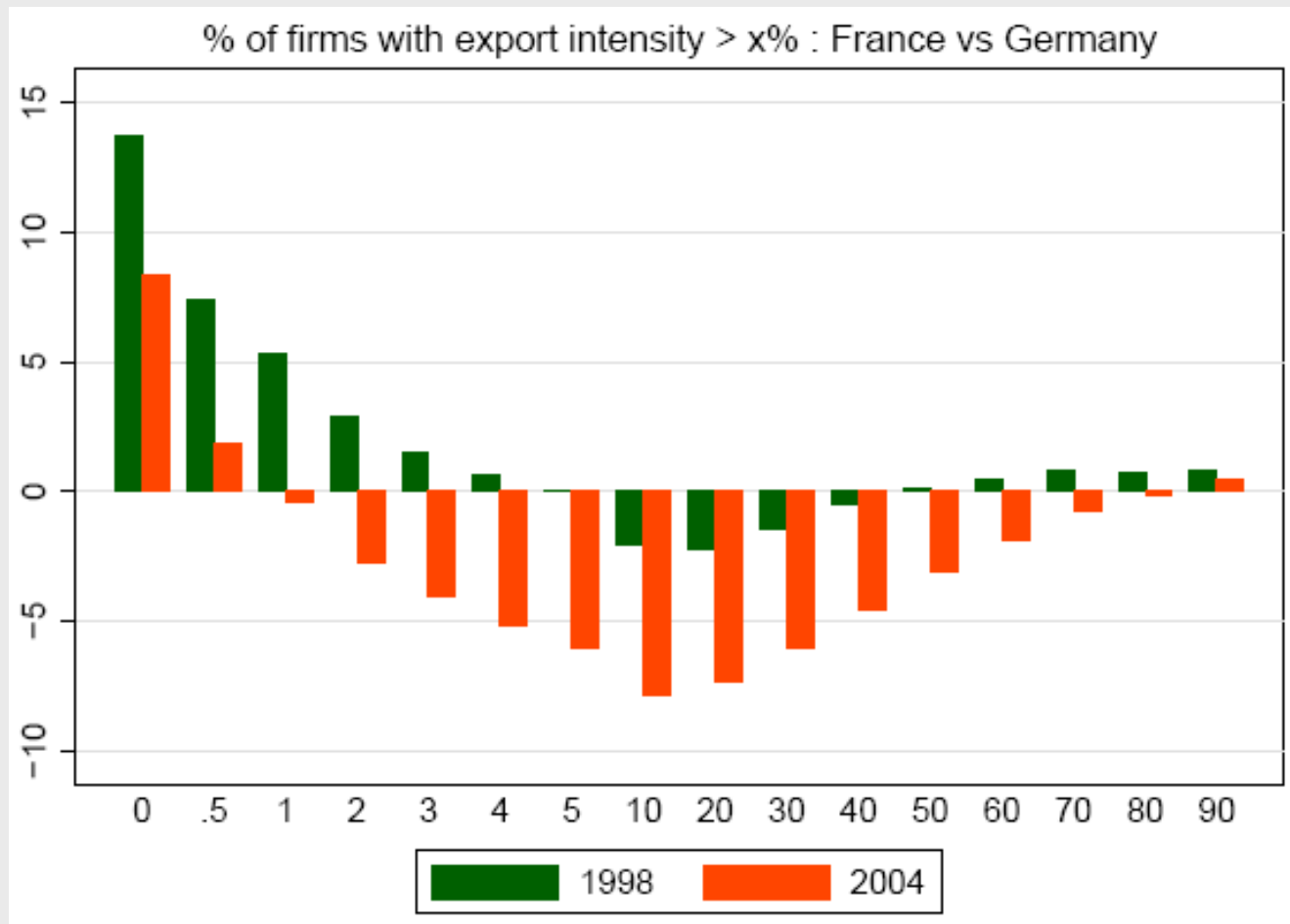
Figure 1: The superstar exporters phenomenon (France)





2.2. Export intensity

Figure 3: Export intensity, France vs. Germany, 1998-2004





2.3 Countries and products

Share of French exporters in 2003 (total number exporters: 99259)

No. of products	Number of countries			Total
	1	5	10+	
1	29.61	0.36	0.22	34.98
5	0.76	0.45	0.62	4.73
10+	0.95	0.89	10.72	18.57
Total	42.59	4.12	15.54	100

Share of French exports in 2003 (total exports: 314.3 billion €)

No. of products	Number of countries			Total
	1	5	10+	
1	0.7	0.08	0.38	1.86
5	0.3	0.08	1.06	1.97
10+	0.28	0.45	76.3	81.36
Total	2.85	1.55	85.44	100



3. The talent of internalized firms

Fact 4 – FDI makers perform better than exporters and these perform better than non exporters. Exporters are generally bigger, more profitable, more capital intensive, more productive and pay higher wages than non exporters. In terms of the same measures, FDI makers perform better than exporters.

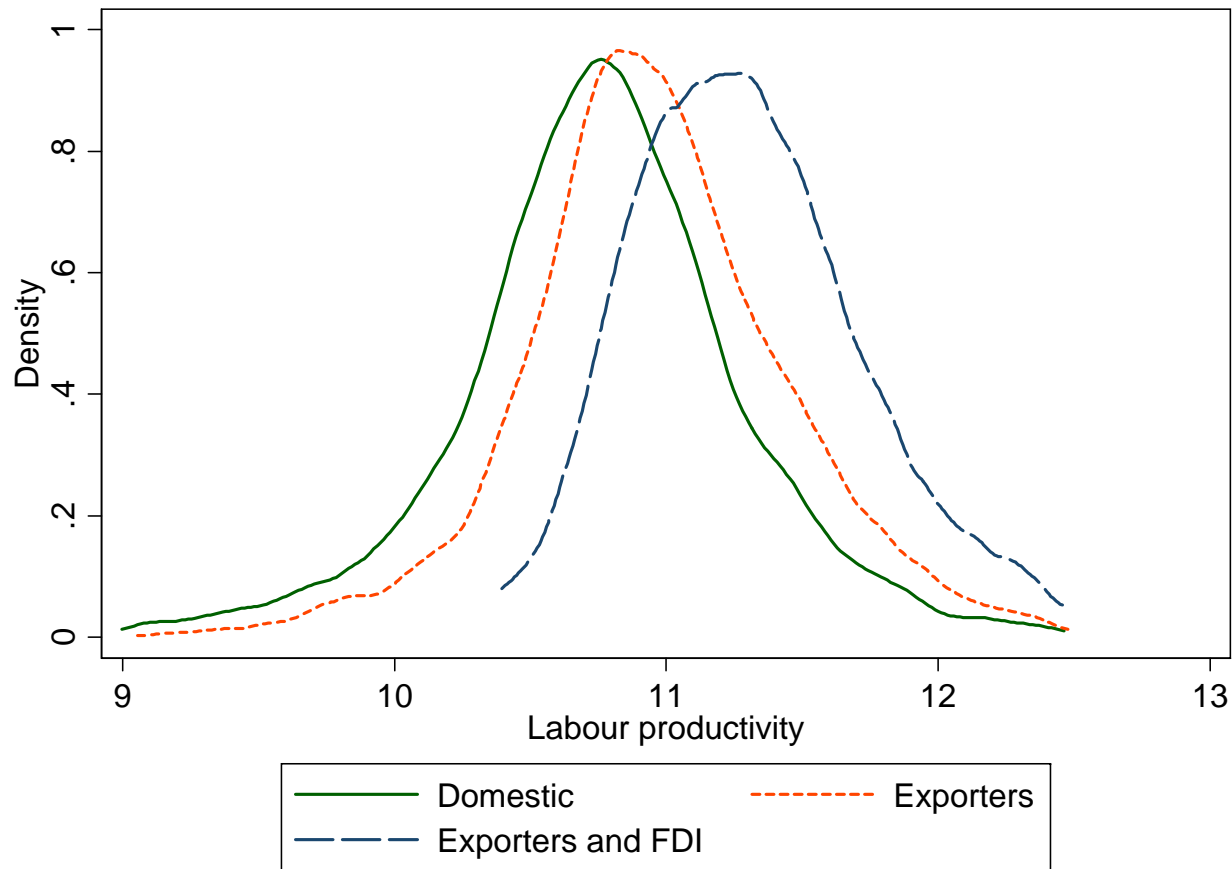
Fact 5 – Exporters are more likely to be foreign owned.

Fact 6 – There is no clear evidence of firms performing differently after accessing foreign markets. While the performance of firms that start to export is generally better than that of non exporters one year or more after starting, the pattern over time is not clear. The picture is even more blurred in the case of firms that start to invest abroad.



3.1. Exporters premia: labour productivity

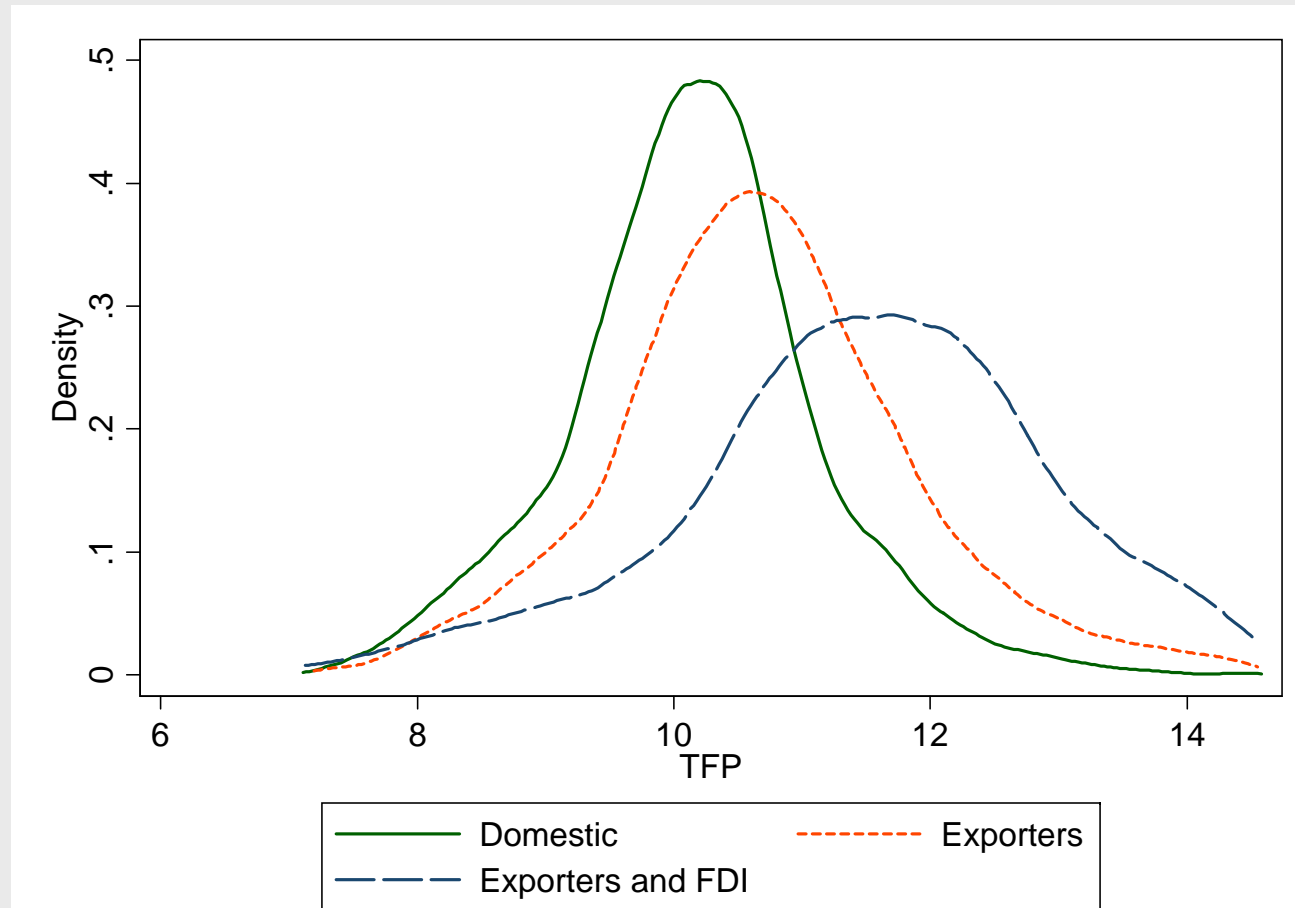
Figure 4: IFs exhibit superior performance (Belgium)





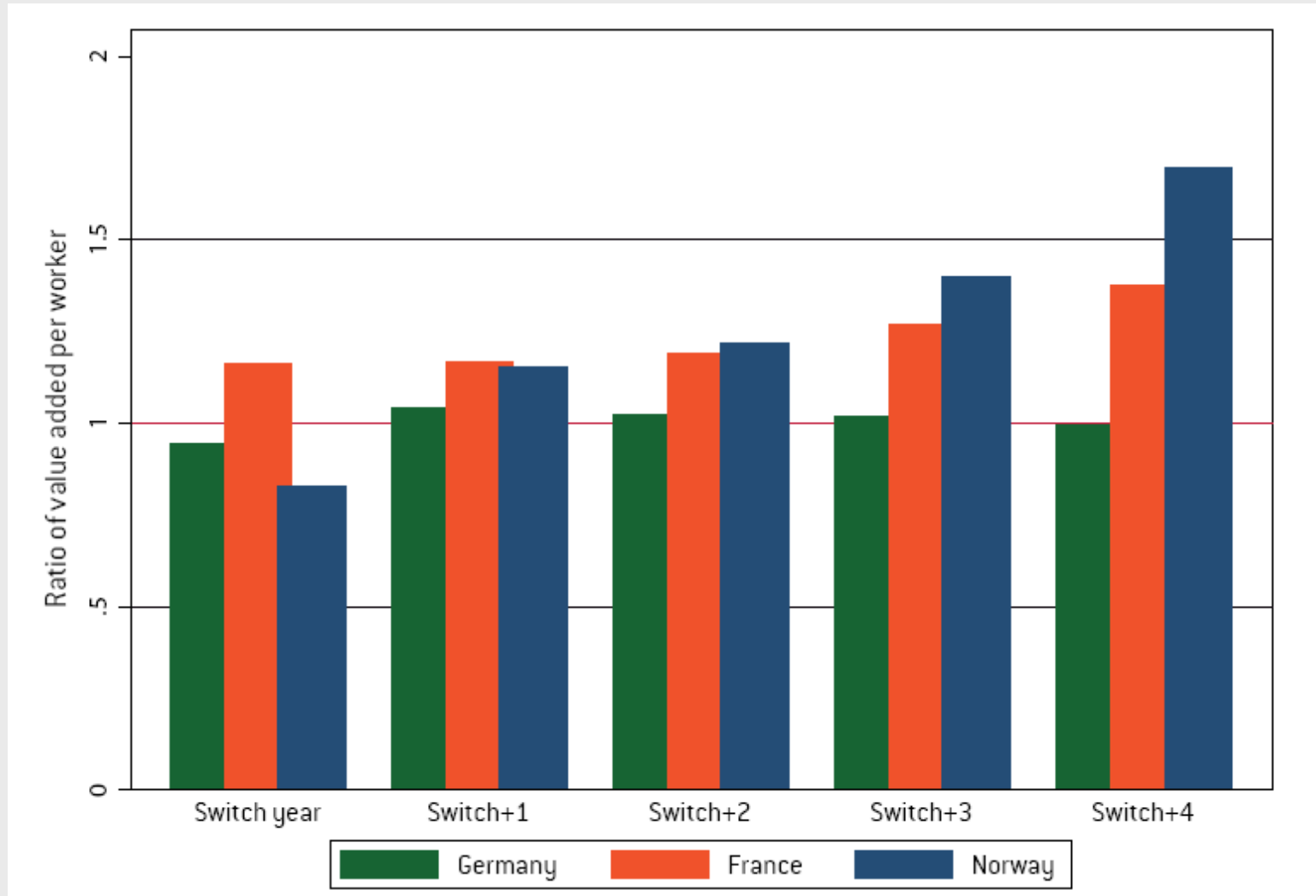
3.1. Exporters premia: TFP

Figure 4: IFs exhibit superior performance (Belgium)



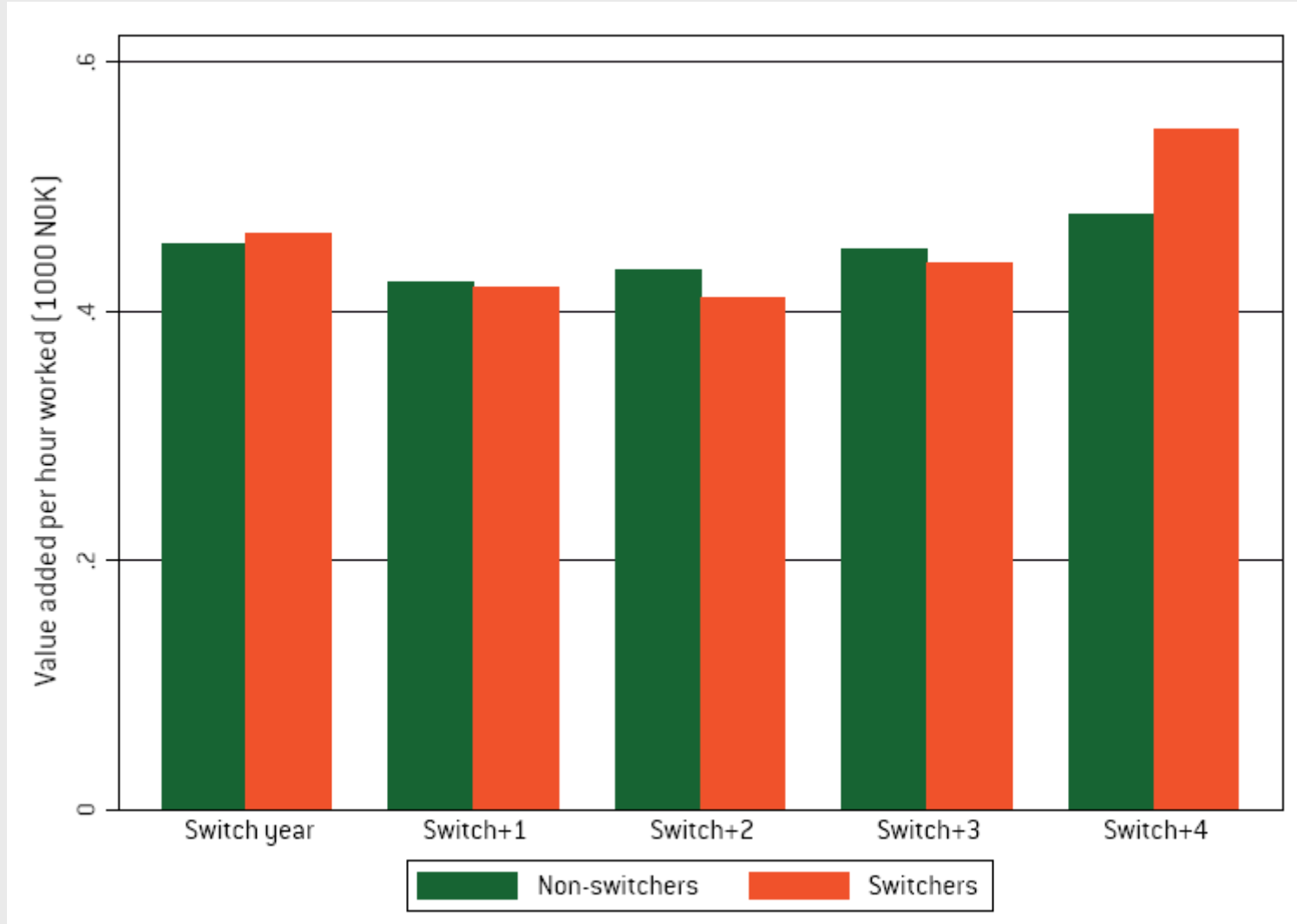


3.2. Compared performance ratio in labour productivity for three countries – Export





3.3. Compared performance ratio in labour productivity for Norway – FDI





4. The margins of exports and FDI

Facts 7 and 8 - *The numbers of exporters and products matter the most.* The variation in the number of exporting firms and exported products accounts for most of the 'gravity effects'.

Fact 9 - *Firms' average exports per product matter less.* The changes in the number of exporting firms and in the number of exported products accounts entirely for the negative impact of higher trade barriers and the positive impact of larger countries' sizes on bilateral exports.

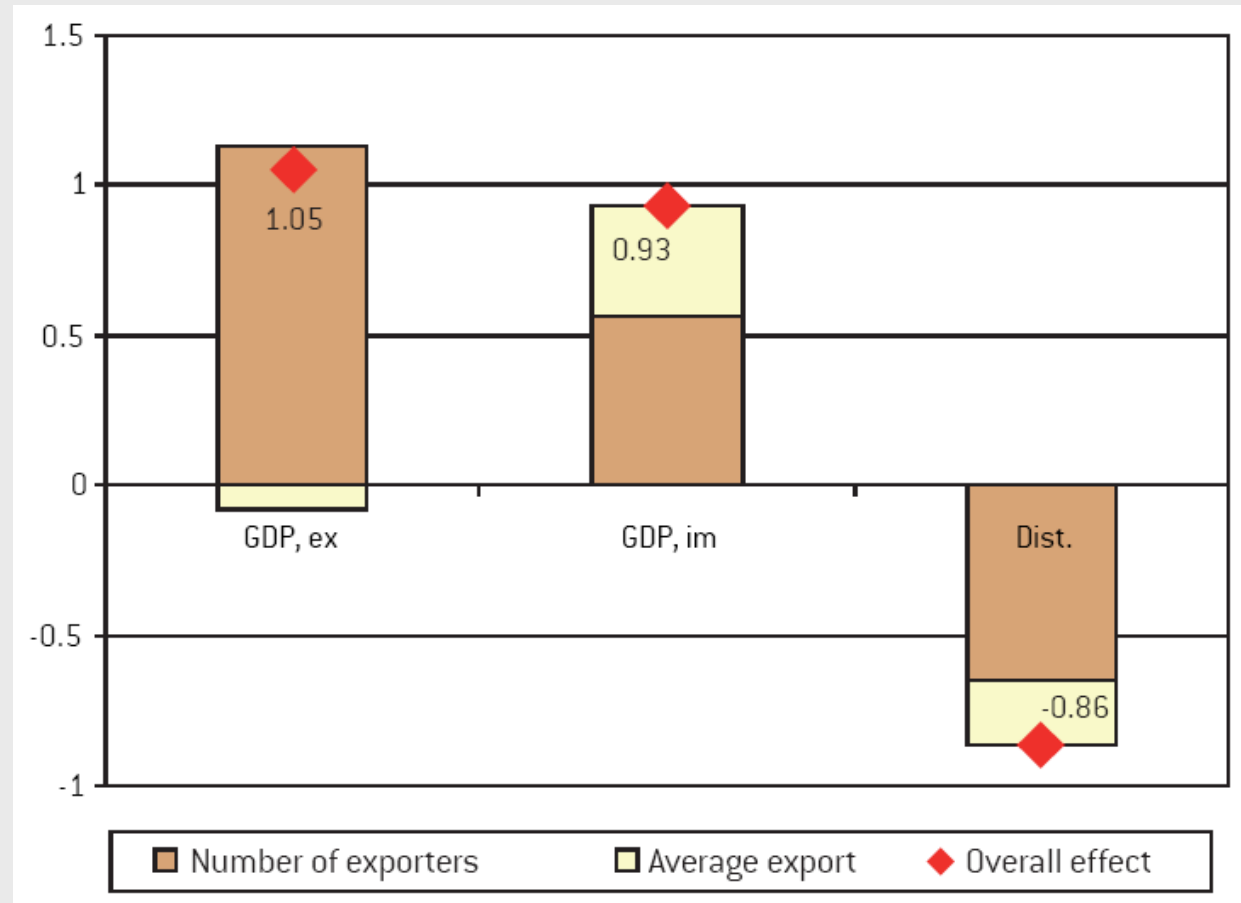
Fact 10 - *Prices and quantities defy 'gravity'.*

Fact 11 - *Colonies and language.* Former colonial ties and common language foster exports making it easier for less efficient firms to export.



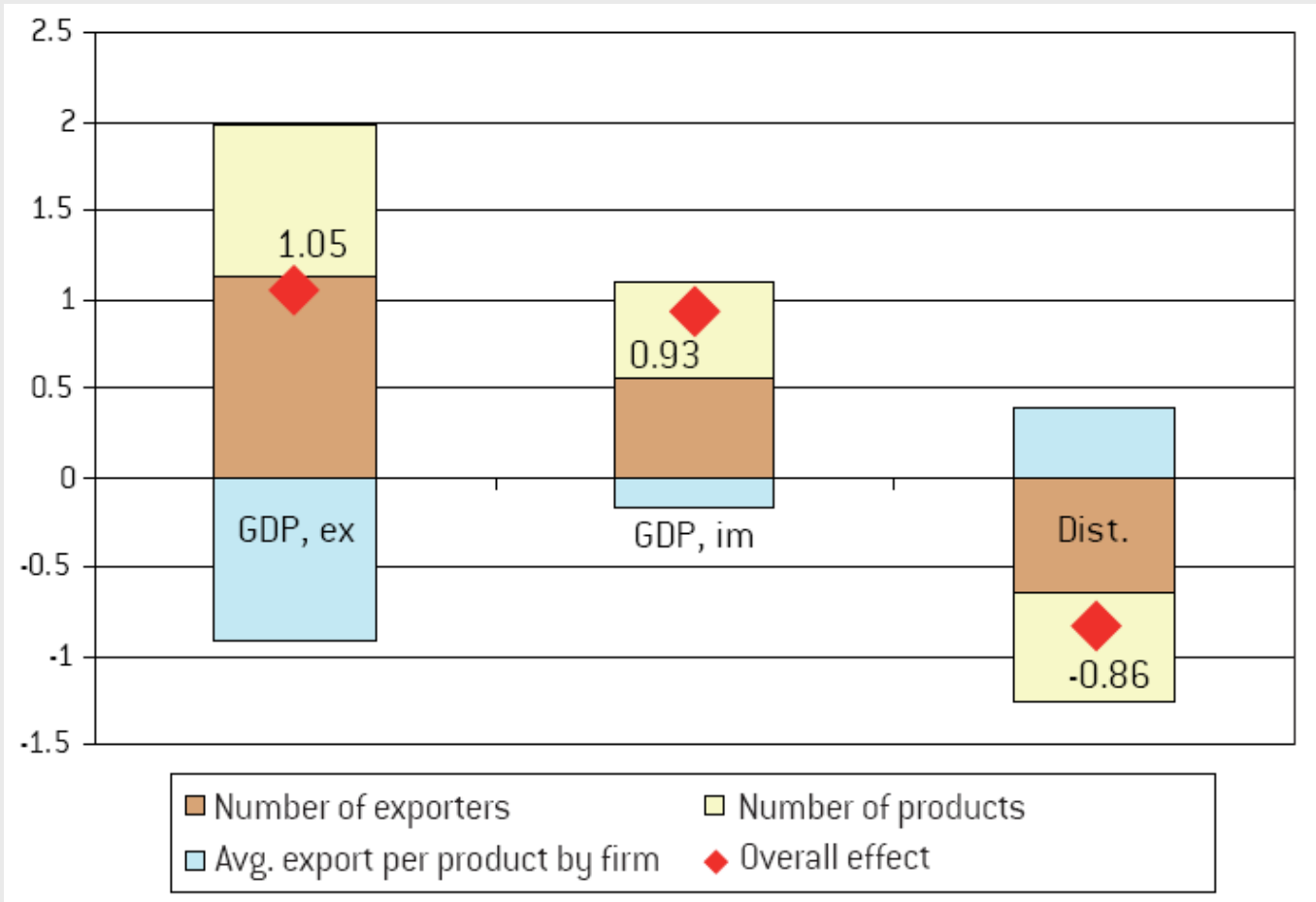
4.1. The margins of exports

Figure 13: Gravity and Aggregate Exports (Belgium and France)



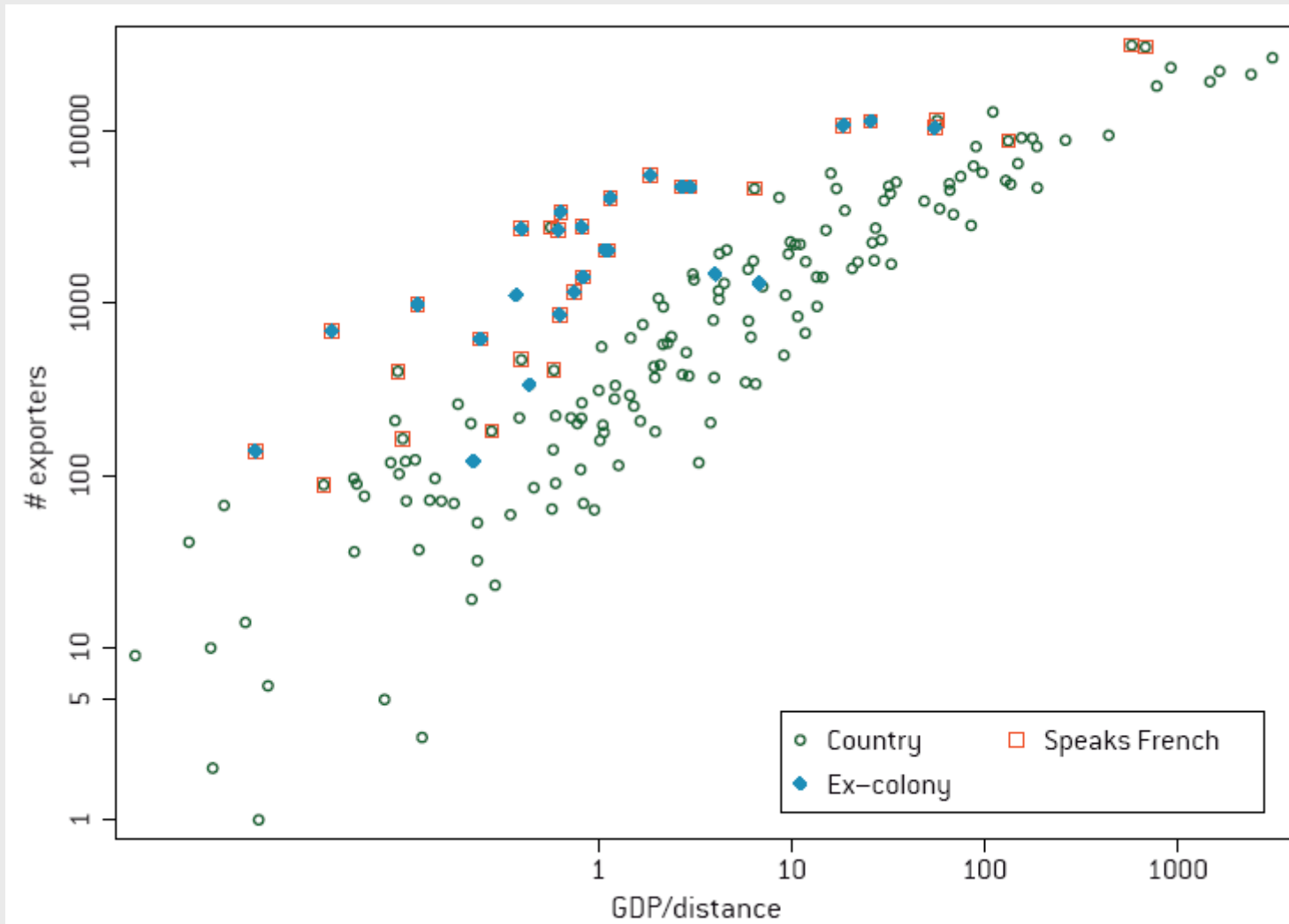


4.1. The margins of exports: # of products matter too



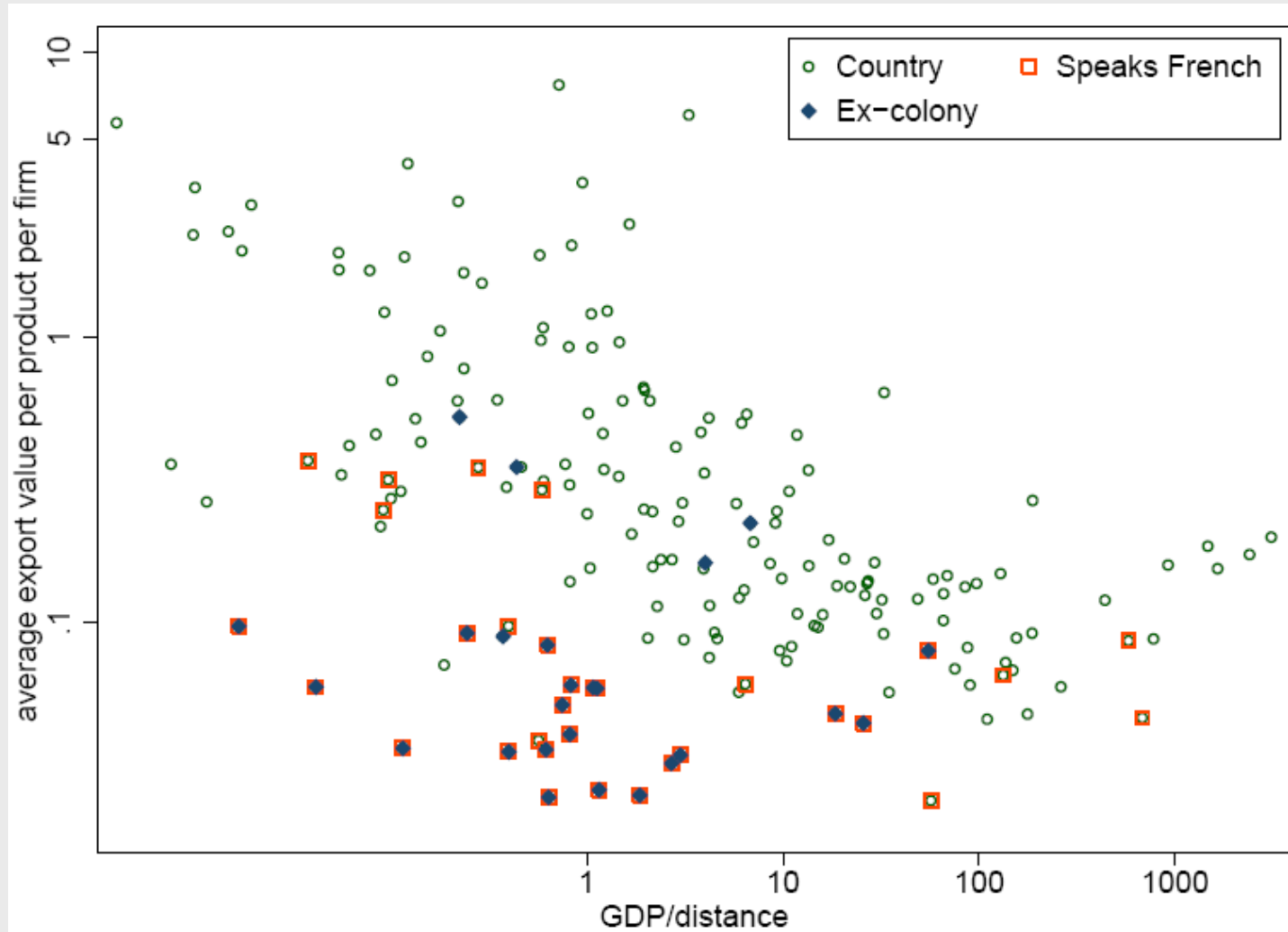


4.1 The extensive margin of French Trade





4.1 The intensive margin of French Trade





4.2. The margins of FDI

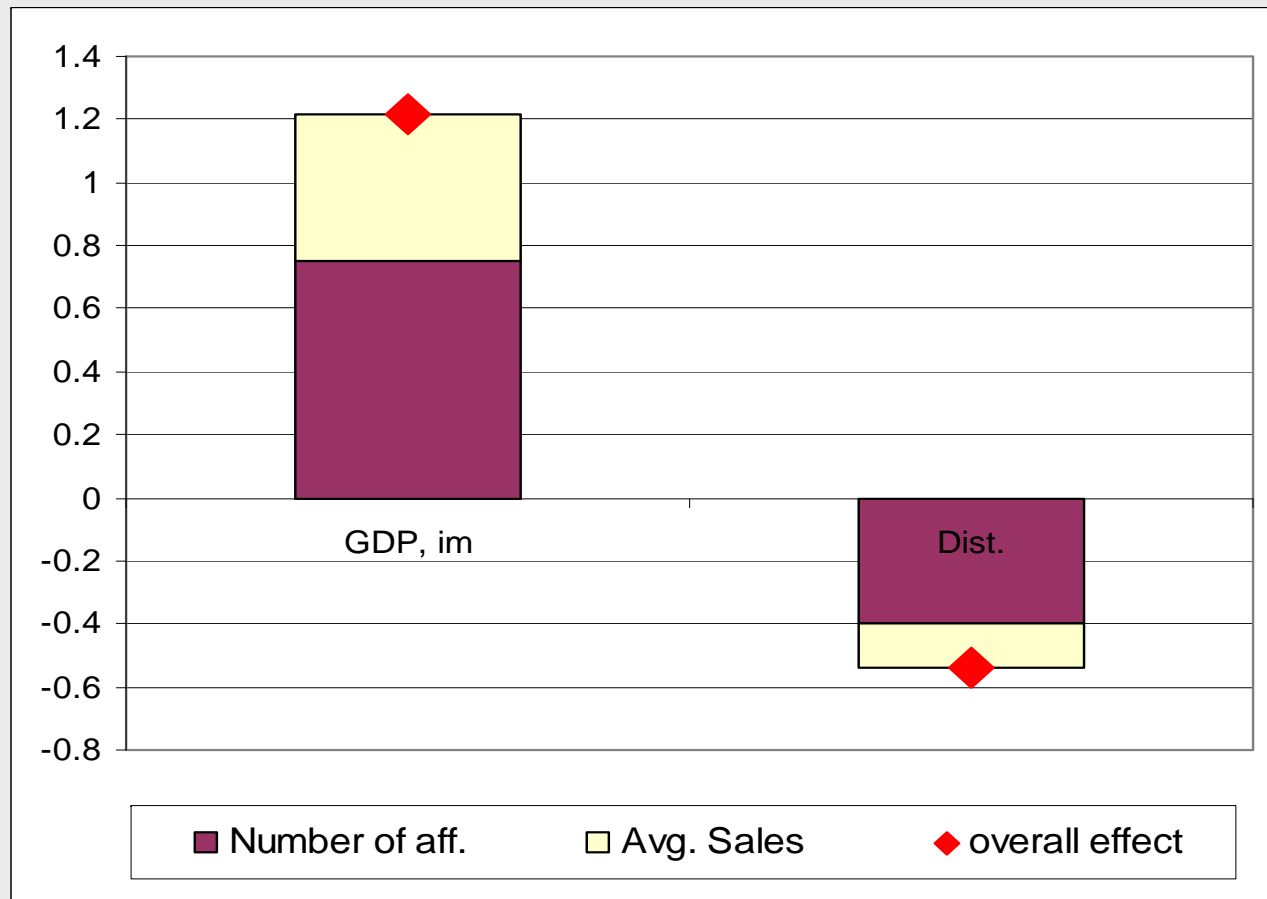
Fact 12 – The number of foreign affiliates matters.

Larger countries and lower trade barriers attract more multinational activities. This attraction materializes mostly in terms of larger numbers of foreign affiliates than in terms of more sales per affiliate.



4.2. The margins of FDI

Figure 19: Gravity and Aggregate FDI (Germany)





5. Back to sectors

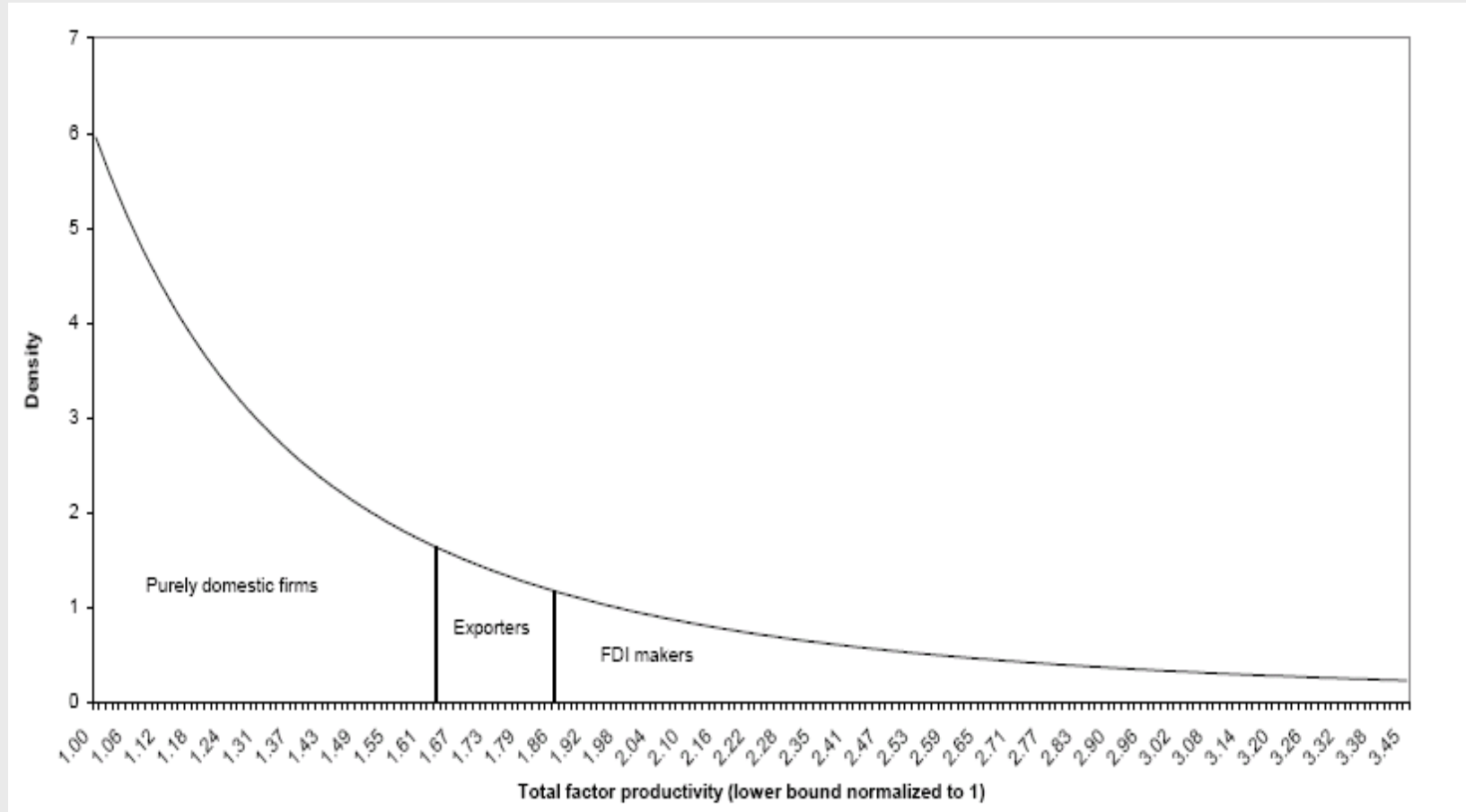
Fact 13 – **Industries differ in terms of unexploited export and FDI potentials.** Some industries are more likely than others to react to shocks through adjustments in the numbers of exporters and FDI makers.

Fact 14 – **The relative export performance of countries at the macro level is positively correlated with the relative productivity of their firms measured at the micro level.**



5.1. Export potential

Figure 20: Distribution of firm productivity of manufacturers (Norway)





5.1. Export potential

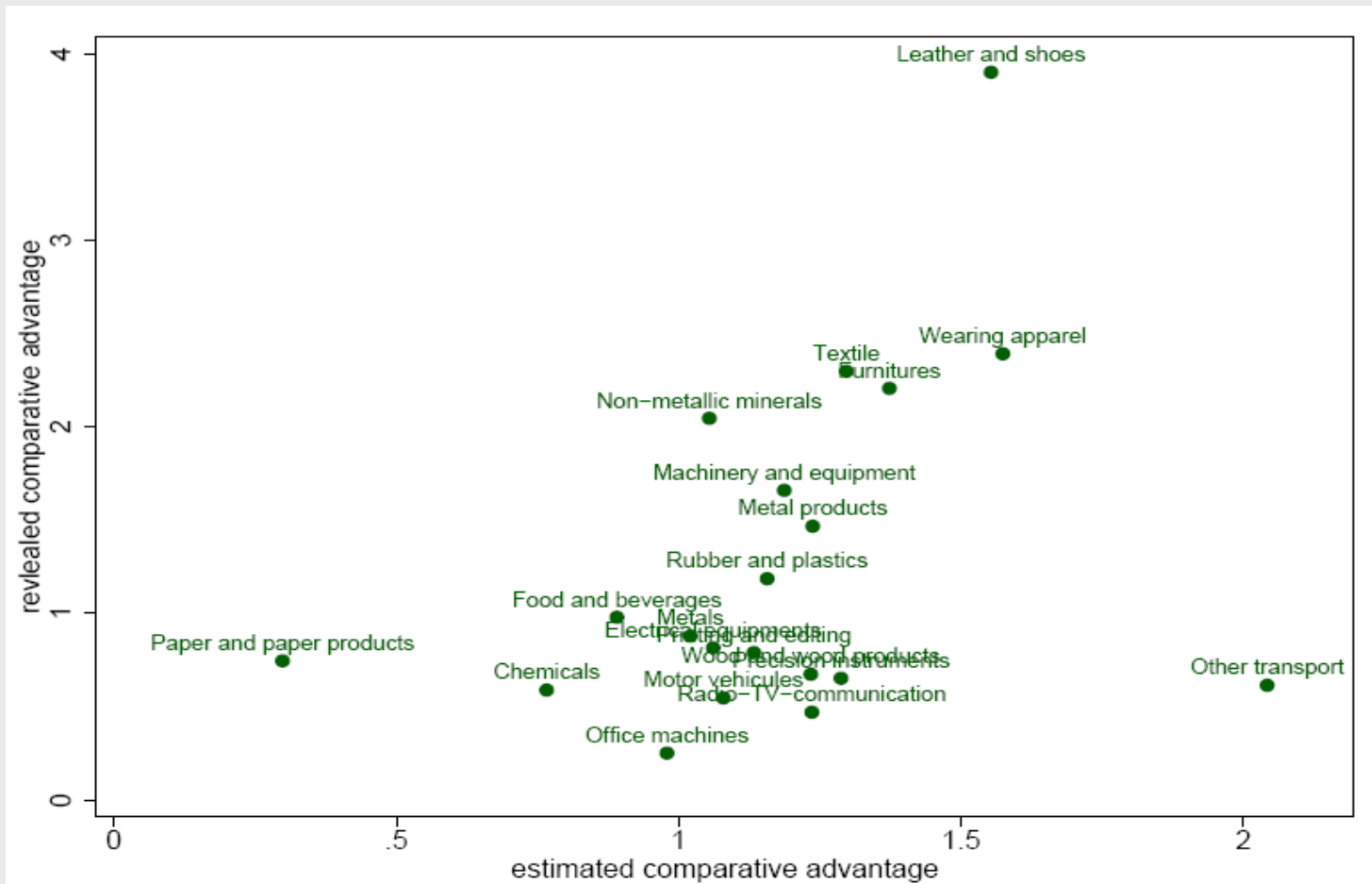
Table 7: 'Unexploited export potential' (2003, selected industries)

Industry	Pareto k	
	Italy	France
Food and beverages	4,17	2,54
Textile	2,39	2,51
Wearing apparel	2,15	2,15
Leather and shoes	3,75	2,74
Wood and wood products	2,43	2,38
Paper and paper products	3,80	3,08
Chemicals	3,21	2,07
Rubber and plastics	4,85	3,43
Machinery and equipment	3,45	3,18
Office machines	1,49	2,79
Electrical equipments	2,10	3,16
Radio-TV-communication	2,59	2,88
Precision instruments	1,91	3,08
Motor vehicles	2,68	3,42
Other transport	1,78	3,05
Furniture	3,28	2,80
Total manufacturing	3,03	2,55



5.2. Firm productivity and specialization

Figure 21: Revealed and estimated comparative advantage (Italy)





6. Conclusions

In summary firm-level evidence sheds new light on the way the internationalization of European firms maps into aggregate export and FDI performance.

1. Only a small fraction of European firms is taking advantage of the internal opportunities from the Single Market and the external opportunities from globalization. These firms are better along a wide scope of performance measures.
2. The number of exporters (i.e. 'extensive margin') is at least as important as the export volume per exporter (i.e. 'intensive margin') in determining aggregate exports. The more so, the greater the polarization of industries between few highly performing firms and many underperforming competitors.



6. Conclusions (cont.)

- Hence, the internationalization of European countries is a matter of **increasing the number of firms** involved as much as a matter of increasing the involvement of already active firms.
- However, in order to increase the number of firms involved, **policies fostering firm performance in terms of employment and productivity are more important than policies fostering exports**, imports or FDI per se.
- Internationalization policies should target bottlenecks ('fixed costs of exports/FDI') bearing in mind that their effectiveness varies across industries



Thank You For Your Attention

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Presentation based on: Thierry Mayer and Gianmarco I.P. Ottaviano, « The Happy Few: The Internationalization of European Firms », Bruegel Blueprint 3, 2007.