The Outward Projection of Italian Firms: A Picture of the 2007 Situation

M. Giansoldati*, C. Pizzi, M. Volpe

Department of Economics, Ca' Foscari University - Venice, San Giobbe, Cannaregio, 873, 30121, Venice, Italy

Abstract

In the last two decades or so, globalisation has prompted a great deal of attention in the study of the international organisation of production, with in-depth industry studies on its welfare effects, both for firms and for workers. Outcomes did not prove a unique direction of effects, although the heterogeneous firms' approach emphasised the intra-industry reallocation trough intra-sectoral international competition.

Thus, differences in the inner structure of companies filled the gap on the micro-level analysis that featured the study of international trade for several decades, although there is still the need to understand the effects of internationalisation on local systems of production and link such results to the consolidated meso-level of analysis of trade flows.

Thanks to the micro data provided by the Italian National Institute of Statistics (Istat), we are able to access information on the presence of Italian firms abroad (OUTWARD FATS) distinguished by geographical area of origin, destination and industry (although limited for the year 2007) and check how these factors influence selected indicators of both affiliates' structure and performance.

Major attention is thus devoted to the trade effects of the presence of such Multinational Enterprises (MNEs), as they are source of both intra-firm and arm's length transaction.

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*Corresponding author

Email addresses: marco.giansoldati@unive.it (M. Giansoldati), pizzic@unive.it (C. Pizzi), mvolpe@unive.it (M. Volpe)

1. Introduction

The last two decades have seen a significant spread of globalisation with an increasing attention to the activities undertaken by multinational enterprises (MNEs) to understand their role in investment, employment, operations and trade. Each of these aspects not only prompted an academic effort to shed light on the theoretical and empirical sides of such phenomena, but also determined a vibrant policy debate.
This is especially true when labour market issues and trade policies are considered. The relocation of some kind of activities from high-income countries to low income ones to take advantage of factor costs savings, labour especially, has prompted a significant concern amongst low-skilled workers in the developed world. It was just this argument, together with the heterogeneity in the empirics of academic research that pushed policymakers to ride popular fears to suggest measures to protect domestic employment and support firms that are not engaged in the delocalisation of production. Yet, trade concerns as well, were and still are at the core at the policy debate and the recent economic downturn determined a dramatic rise in requests for protectionism. Indeed, the spread of MNEs determined a significant re-definition of the ways goods and services are transferred internationally according to the production and distribution networks the firms contribute to build, leading to cross border intra-firm or arm's length transactions. MNEs are key players to understand the extent a territory is internationalised, although the diffusion of vertically integrated firms across nations is different according to the selected country. In fact, as far as US and Japan are concerned, the texture of internationalised firms is made up mainly of large MNEs that not only conduct operations but are also engaged in distribution, whilst maintaining high value-added functions in the headquarter country. Conversely, if firms from continental Europe are selected, then there will be a major presence of small and medium sized enterprises, which are mostly committed to internationalise through arm's length transaction and forms of non-equity agreements.[1] Thus, the present investigation cannot rely on the traditional approaches studying the behaviour of aggregated foreign direct investment, but it is instead necessary to look at such phenomena through firm-level data, a strategy now applicable thanks to the recent availability of micro-

[1]However, there is a certain degree of heterogeneity amongst SMEs as medium sized enterprises have increasingly expanded their presence abroad through FDI.

level data on OUTWARD FATS, i.e. statistic on the foreign affiliates of Italian firms.[2] We are thus dealing with two kinds of MNEs, following the the most consolidated lines of scholarship. According to the first one firms become multinationals to reduce their overall production costs. Therefore firms relocate some some stages of production to foreign countries and there manufacture products that differ from those they produce at home on the basis of the structure of comparative advantages they are likely to achieve. Such a form of FDI is called *vertical FDI* and the primary motive that lies behind this organisational choice is the chance of cost saving in the use of factors, labour especially. Indeed, this is the case when a relevant amount of unskilled labour force is required by a manufacturing process that could be easily relocated to countries, different from the homeland, where unskilled labour is cheaper.

According to the second pattern of internationalisation, firms become multinational to better serve foreign final faraway markets, and they thus move production and distribution facilities in order to be closer to customers and thus avoid relevant transport costs. In other words, physical distance matters, but not psychic distance as this kind of investment is likely to take place between countries with similar GDP levels. Therefore, in this kind of investment, labeled as *horizontal FDI*, firms produce abroad the same goods they manufacture at home.

According to the third way of multinational presence, named *export-platform FDI* the affiliate's output is (largely) sold in third markets rather than in the parent or host markets, a form of foreign presence that only recently received relevant attention. In particular, amongst the few contributors, Ekholm, Forslid and Markusen (2007 [6]) proposed a three-country model (with two high-income and one low-income income country) that leads to two different empirical outcomes. In the first one, costs for intermediates are the same on all trade links as the trade costs for assembled final goods, whereas in the second one a free-trade area, reduces trade costs between one high-demand, high-cost country and the low-cost, low-demand country.

Eventually, the scholarship linked with the most advanced forms of the *export-platform FDI*, lead to a fourth typology, namely the *knowledge-capital model* (which is not under investigation in this contribution), that occurs when parents supply knowledge-based services to affiliates which, although they require large fixed costs to develop, may be supplied to affiliates at low costs once created (Carr et al., 2001 [4]). In other words, such a mode encompasses features of the horizontal and vertical type taking advantage

[2]We shall return later to this point, supplying the details of the dataset.

of the characteristics of the country where the headquarter is located and where operations are undertaken. The above models have been first tested on aggregated data and the related empirical literature tended to find greater support for horizontally integrated multinationals (Brainard, 1997 [3]; Blonigen, 2001 [2]), while just some found support for the vertically integrated firm hypothesis (Hanson et al., 2005 [7]). However, thanks to spread of the fragmentation trade theory (Jones and Kierzkowski, 1990 [8]; Arndt and Kierzkowski, 2001 [9]), i.e. starting from the beginning of the 21st century, there has been an increasing number of proofs of the vertical type of investment together with a confirmed relevance of the *knowledge-capital model*. It is straightforward that MNE's features are likely to be influenced by the characteristics of the sector, in terms of labour and capital endowments, thus the macro-dimension should be re-sized to account for the meso-dynamics. Yet, beyond the industry level we know that the most recent theoretical and empirical advancement (Helpman et al 2004 [5], Melitz, 2003 [10]) showed that the decision of a firm to become multinational crucially depends on its productivity level, thus a micro-based approach is needed to understand the nature and extent of a company's foreign expansion.
The aim of this paper is to focus on Italian foreign affiliates trying to reply to a set of question emerging by the examination of country-, sector-, and firm-level data (although with a certain level of aggregation), namely:

- Is the international expansion of Italian firms driven by cost-saving reasons? Or is it attributable to a market seeking motive? Is there evidence supporting both motives? Does such organisational forms vary according to selected industries?
- To what extent intra-firm transactions are preferred to arm's length exchanges? Does this ratio vary on the basis of the chosen sector and the country the affiliate is located? To what extent do firm-specific characteristics matter on this respect?
- To what extent the so-called *Made in Italy* productions determine different forms of internationalisation? Are they associated with a vertical structure of the firm or do they push to deverticalisation? Do these results hold for all countries?

2. The data

The Adele Database allows to have access on information on more than 22,000 foreign affiliates controlled by more than 6,660 Italian firms. Observed data for foreign affiliates include, although limited to the year 2007:

- the country where the foreign affiliate is located in
- the industry in which the foreign affiliate operates
- the number of foreign affiliates*
- the number of employees*
- the turnover (thousands of Euros)*
- the FDI stock (thousands of Euros)*
- the labour cost (thousands of Euros)*
- the exports (thousands of Euros)*
- the imports (thousands of Euros)*
- the intra-firm exports (thousands of Euros)*
- the intra-firm imports (thousands of Euros)*
- the value-added*
- the region, the province and the municipality where the parent company is located.

The variables denoted by * refer to each group of foreign affiliates controlled by firms located in the same municipality.

3. The Empirical Strategy

Starting from such information we compute some indexes and try to test if variables foreign location and industry are able to explain affiliates' behaviour. Indeed, although, providing some reflections on the expected relationship between the computed indexes and features of the area of origin, i.e. local systems of production, widely known as districts, we will not deal explicitly with this analysis in the present investigation.

Namely we are referring to:

- a labour productivity index, LP computed as:

$$LP = \frac{value\ added}{employees} \tag{1}$$

High values of the abovementioned index may be found either on high-skilled content sectors with relatively high labour costs as well as on low-skill content sectors with relatively low labour costs, if we assume that the former is going to provide, *ceteris paribus* higher value added than the latter. In this sense we expect that different productivity levels may emerge on the basis of the selected sector, although the empirical evidence did not guarantee that high-skilled sectors bring about higher productivity levels, especially if the the texture of the Italian productive system, based on traditional low-tech content of industries, is taken into account. Moreover, it is not trivial to identify the destinations that are likely to determine higher productivity level, although a simple comparison between developed vs developing countries is biased towards the first group, where higher local value added is usually associated with the presence of mother's company legal base.

- a sales redditivity index, $REDSALE$ computed as:

$$REDSALE = \frac{(value\ added - labour\ cost)}{turnover} \tag{2}$$

We expect such index to be higher in the case that affiliates are located in low-wage countries to look for labour-cost differentials, a feature which is likely to be found in some of the traditional Made in Italy sectors, such as the textile and clothing and the leather and footwear ones, whereas it seems more difficult to be applied in the machinery industry, where foreign competition is not as fierce as in the previous two. Much more complex is to derive a general conclusion for other industries where a sensible degree of endogenous heterogeneity is detected. It is *ex ante* impossible to assert which areas of origin are the most likely to get the highest index, as the whole group is intended to save on factor costs, even though the amount of value added is probably higher in those industries manufacturing high-skill content goods.

- a local market seeking index, computed as:

$$LOCALMKT = \frac{(turnover - exports)}{turnover} \tag{3}$$

$LOCALMKT$ provides the share of turnover recorded in the local market and thus, should be higher in those cases where the foreign affiliate replicates abroad the production of the same goods manufactured by the headquarter in the home country. In other words, the affiliate

established abroad is intended to supply the local final market and, therefore, acts as a kind of *horizontal FDI*. We expect that such a process is initiated by a headquarter firm locates in high-income area, such as Italy, where the development of complex products is likely to occur and a risk of knowledge dissipation is detected.

- an export-platform index, computed as:

$$EXPPLAT = \frac{(exports - intragroup\ exports)}{turnover} \tag{4}$$

EXPPLAT is intended to identify how much the affiliate serves foreign markets without relying on related parties. As such, we expect that the firms should have a significant level of maturity and likely located in small and/or strategic countries that present tight links (from an economic, political and geographical point of view) with the markets that are going to be served. We thus expect that such an index should take higher values in a high-tech industry stemming from an Italian area featured by a texture of complex economic activities.

- an independency index, computed as:

$$INDEP = \frac{(turnover - intragroup\ exports)}{turnover} \tag{5}$$

Conversely to the previous one, *INDEP* is intended to catch the overall ability of the foreign affiliate to generate turnover, both on the market where it is located and abroad. It is thus correctly labeled as an indicator of affiliate's independency, whose location must be strategic to supply nearby markets, a feature to be detected not only in a high-skill content industry, but also in low-skilled sectors, irrespectively of the area of origin.

- an index of arm's length total trade, computed as:

$$ARMSTOT = \frac{(intermediate\ inputs - intragroup\ imports)}{turnover} \tag{6}$$

ARMSTOT is designed to identify the dimension of global sourcing of the foreign affiliate, i.e. the spectrum of supply relationship activated at both national and transnational level. First, "among firms that source their inputs locally, the low productivity firms outsource whereas the high-productivity firms insource" (Antràs and Helpman, 2004 [1]).

Such a relationship is valid even in the case of firms sourcing their input internationally and thus a pecking order amongst the affiliates can be supplied according to the available data on labour productivity, i.e. affiliates with higher labour productivity should be more prone to insource and we expect that this may take place on either high-skilled content sectors - but with relatively higher labour costs - or low-skill content - but with relatively lower labour costs. If sourcing takes place at a worldwide level, we expect that the affiliate is capable in establishing production networks incurring in significant transport costs.

- an index of arm's length local trade, computed as:

$$AMRSLOC = \frac{(turnover - value\ added - totalimports)}{turnover} \qquad (7)$$

where it is worth recalling the results achieved by the same scholarship cited above (Antrs and Helpman, 2004 [1]), whose reflections are still valid in this case, although a special emphasis has to be put on the capability of the affiliate to pay limited service link costs and/or its favourable location (proximity) to the markets providing production factors. We may expect that is the case of firms working on low-skill industries where the overall cost advantage is the major source of competitive positioning and any additional saving is thus welcome. Obviously, this is true for low-cost locations placed nearby, allowing for the best trade-off between lower labour costs and higher transportation expenses.

4. Some Sketchy Facts on the Modes of Internationalisation

An appropriate analysis on the collected data and, in particular, on the relationship between the computed indexes and relevant dimensions such as industry and area of destination, is able to supply some indications on the ways followed by Italian firms to internationalise. This is true for the abovementioned hypotheses, respectively related to cost saving reasons, to the access to final markets or, in the more complex case, to develop export-platform FDI.
It is thus specifically relevant to investigate the meaning of the values assumed by the indexes and in-depth look at the relationships amongst some of them and, sometimes, between those computed and the data originally provided by the Adele service.

4.1. The vertical FDI hypothesis

According to the indications provided in the first Section and to the description of indexes previously supplied, we expect that the vertical MNE form takes place if $LOCALMKT$, $EXPPLAT$ assume both low values together with a relevant share of intra-firm imports on the overall dimension of total imports. Such a dimension is captured by an additional index, computed as *total imports/(turnover-valued added-intrafirm imports)*, labeled $\Delta ARMSLENGTH$, which *ceteris paribus*, assumes low values if the above mentioned conditions are met.

This is reasonable if we expect that the MNE exploits factor costs differential between the mother company's home country and the place where the affiliate is located and, therefore, *back-and-forth* transactions are likely to take place.

Figure 1a, 1c and 1e plot the relationship between $LOCALMKT$ and $EXPPLAT$, expressed by the same dotted line, whereas the dimension of the spheres represents respectively $\Delta ARMSLENGTH$, labour productivity and FDI per worker.

The depictions seem to confirm the vertical FDI hypothesis for the case of Asia, as $LOCALMKT$ assumes a relatively low value associated to a modest digit for the $EXPPLAT$ dimension. Eventually, trade flows are to a greatest extent of a intra-firm type and represent. Such three facts broadly confirm that the selected macro-region is engaged in *back-and-forth* transaction, although a significant heterogeneity across countries is certainly present and therefore a different role is played by each of them in the fragmentation of production.

Similar reflections can be drawn for the case of Northern Africa countries, although with limited differences. In particular, we record the highest absolute values for $EXPPLAT$ and smaller digits than the previous area if $\Delta ARMSLENGTH$ is concerned (i.e. high intra-firm trade) something strongly in line with the fragmentation of production hypothesis. Yet, still looking at the same area we record an awkward highest level of labour productivity, a fact more likely to be found on high-income developed countries and thus need to be further investigated If looking at the remaining areas some further reflections are worth drawing, but first horizontal FDIs should be introduced.

4.2. The horizontal FDI hypothesis

Checking for the horizontal FDI hypothesis seems to be much more difficult than testing the previous relationship. In the first place, it is reasonable to expect that $LOCALMKT$ should be high as the main motive behind this kind of investment is to supply indigenous consumers with final products.

However, two different scenarios emerge if considering $\Delta ARMSLENGTH$. Indeed,

1. if the index is small it reflects the relevance of intra-firm trade flows and, therefore, that the industry we are looking at is of high-technology content as *intra muros* exchange of both goods and services are preferred to arm's length transactions in order to reduce the risk of knowledge dissipation. As previously anticipated we expect that such a situation is likely to take place when $ARMSTOT$ gets a relatively low value, consistently with a context where affiliates present high labour productivity[3].

2. Conversely, a sensible value for $\Delta ARMSLENGTH$ should be recorded in low-tech intensive sectors motivated by the search of cost savings in the purchase of factors, both at a local and at a international level (but not within the boundaries of the firm) something typical of firms with relatively lower values of labour productivity.

Figure 1b, 1d and 1f show indeed that high values of $LOCALMKT$ may be associated with different levels for $ARMSTOT$ providing some tentative evidence in support of the horizontal FDI hypothesis. In this perspective three facts are worth mentioning here.

- Latin American countries present notable high digits for $ARMSTOT$, indicating, as theoretically predicted, how Italian affiliates located in that area present relatively lower labour productivity values if compared to the other selected macro-regions. Such a pronounced tendency to outsource globally is a symptom of specialisation in low-tech industries, which is common to the Asian experience

- North American countries show low values for $ARMSTOT$, a tendency to insource, that, associated with median productivity digits, reveals a likely relevant investment in high-technology intensive sectors, something to a certain extent confirmed by higher values of FDI per worker.

- Former USSR countries are in between the previous cases, but the great amount of inputs sourced at a global scale (evident from Graph 1bis) might be a good predictor of the modest technological content that features such transitional countries, associated with low productivity values and a limited propensity to sell to the local market.[4]

[3]However, this is not always the case, as noticed for the Northern African countries.

[4]It seems worthwhile stressing again the countries seem to be an outlier for the picture

4.3. The export-platform FDI hypothesis

Eventually, the export-platform FDI hypothesis seems actually the most difficult to describe given the sketchy nature of the data. However, we easily expect $LOCALMKT$ to assume low values if compared to $EXPPLAT$, where the latter is the prime measure to be used to catch the dimension of such phenomenon, especially for the nature of the data. Italian firms in Latin America seem to embark only in the supply to final markets (diverse from the local one) as $EXPPLAT$ seems not so far from its maximum. Such digits are similar to those expressed by North America, although we expect that in this case affiliates are engaged in commercial activities only, rather than in both manufacturing and distributions, which is more likely to occur just in Latin America.

5. The sectoral spread of Italian foreign affiliates

The empirical evidence described in the previous Sections finds some support if looking at $LOCALMKT$ and $EXPPLAT$, whose relationship is depicted in Figures 2a, 2c, and 2e, together with a third variable, represented by the radius of the sphere and corresponding respectively to $\Delta ARMSLENGTH$, labour productivity and FDI per worker. In particular, it is straightforward to notice that the so-called direct *Made in Italy* industries are featured by a relevant value of the $\Delta ARMSLENGTH$, something coherent with both the low productivity values of the group and the modest dimension of FDI per worker. This indications broadly support the view that in the year 2007, affiliates in the food and beverages, textile and clothing, leather and footwear, furniture, and jewelry productions typically established arm's length transactions to get their inputs although only apparently they seem to be inclined to act as export platforms rather than serving the local market.
Conversely, if looking at the indirect *Made in Italy* we noticed, as expected, slightly higher levels of labour productivity than those recorded in the previous group, but the amount of FDI per worker remains still far from our predictions as all activities in the metal and mechanical sectors should be featured by a higher level of capital engagement. We also acknowledge of a $\Delta ARMSLENGTH$ coherently lower than the direct *Made in Italy*, with a limited amount of input sourced, whereas the relationship between $LOCALMKT$ and $EXPPLAT$ seems to emphasise that there is a both tendency

drawn for the extremely high productivity values, a fact that does not change the vertical nature of the investment in that area.

to supply the domestic final market with goods produced locally but a certain amount of the manufacture is shipped probably to nearby countries.
The service case presents some expect features but also some unexpected ones. Amongst the first we record the high value of *LOCALMKT* as it is reasonable that affiliates abroad serve the domestic market give the almost impossible transferability of services themselves. Again in line with the theoretical predictions is the appreciable value of FDI per worker which could be eventually higher if the group "Other industries" may be excluded, but it is instead at odds the relatively low labour productivity which could be attributed to the heterogeneity within the group.[5]
Eventually, the group labeled as "Other industries" resembles the extraction of fossil fuels, together with the transformation of coke, oil refining and the manufacture of chemical and rubber products. It also embraces the transformation and recovery of metal wreckage and, most importantly, the construction sector and the production and distribution of electric energy, gas and water.
Given these premises we are in a position to justify the presence of high values of FDI per worker, likely deriving from the relevant investment in exploration, extraction, treatment and shipment of energy commodities, a fact associated with supposed higher digits of value added and, thus, higher labour productivity. Although it is not possible to generalise, the high value of the *EXPPLAT* and the relatively low digit for *LOCALMKT* may be influenced by those industries mostly engaged in the exploitation of natural resources and prompt relevant amounts of flows direct not only back to the home country but also to third nations. Support of the previous results is obtained if looking at Figures 2b, 2d and 2f.

6. Conclusions

Although the evidence provided in this contribution suffers from a lack of micro-level detail, it aims to supply some tentative results the Italian outward projection through foreign affiliates, with a cross-section dimension for the year 2007.
The well-known theoretical framework on the types of FDI seems to be a good tool to describe the internationalisation of Italian affiliates, as partially confirmed by a set of indexes and variables able to evaluate how the presence is diversely distributed across macro-regions and macro-sectors. Recalling

[5]Indeed, such group includes not only financial and consultancies, but also service linked to tourism, hospitality and all kinds of commerce.

the research questions we posed at the beginning of the contribution we are able to supply some sketchy, but relevant replies. Indeed,

- The location of Italian affiliates abroad is driven by both cost-saving reasons, but also by the need to preside the market where it is located and as we noticed this choice is driven by geographical and sectoral motives.

- Intra-firm trade flows are generally preferred to arm's length transactions when both vertical FDI are put in place but also when horizontal one are detected, although the rationale behind each of them if obviously completely different, thus no geographical orientation in favour of the former or the latter is *a priori* defined.

- Eventually, the so-called *Made in Italy* productions are considered, both in their direct and indirect forms, seems to be mostly associated with a arm's length form of transactions, which is prevalent in destinations where the cost saving motive is prevalent (especially if the traditional - direct - *Made in Italy* productions are taken into account, namely food and beverages,textile and clothing, leather and footwear, furniture, jewelry.

Further investigation is thus required to provide firm-level investigation on the presence of Italian affiliates abroad, a necessary step to overcome the bias present in the aggregation we encountered both at the geographic and sectoral level to cope with data handling constraints.

Table 1: Average values of selected affiliate' features - geographic depiction

	Latin America	Asia	North Africa	North America	Former USSR	Rest of the World	UE 12	UE 14
No. of foreign affiliates[a]	468	346	174	676	127	879	1008	2827
No. of foreign plants[a]	561	405	229	964	163	1095	1201	3982
No. of employees	251.40	123.75	187.25	164.38	206.48	154.44	174.22	170.22
Turnover	50461.48	24072.48	129134.20	54700.05	31995.26	43749.10	28159.43	74555.92
FDI stock	1874.09	1603.77	9147.33	6103.66	9082.26	5876.82	NA	NA
Labour costs	3283.04	1231.34	2124.37	7489.87	1300.79	2304.84	NA	NA
Total exports	7449.11	13422.70	58167.66	14152.82	6408.30	12441.49	NA	NA
Total imports	8510.51	5199.80	14081.09	14729.00	9135.09	5047.34	NA	NA
Value added	14370.60	5669.54	66700.47	20625.16	13319.65	24812.69	5833.83	15380.12
Intra-firm exports	4364.91	8978.72	10567.19	6816.07	3102.97	4932.15	NA	NA
Intra-firm imports	6939.49	4145.13	12383.09	13319.15	6147.21	4071.56	NA	NA
LP	55.81	50.13	198.41	132.11	164.01	174.47	28.33	104.25
REDSALE	0.20	0.18	0.28	0.16	0.25	0.17	NA	NA
LOCALMKT	0.80	0.52	0.69	0.79	0.79	0.66	NA	NA
EXPPLAT	0.12	0.17	0.13	0.10	0.10	0.12	NA	NA
INDEP	0.91	0.69	0.81	0.89	0.89	0.78	NA	NA
ARMSTOT	0.58	0.56	0.51	0.40	0.48	0.56	0.81	0.78
ARMSLOC	0.55	0.52	0.46	0.37	0.41	0.51	NA	NA

[a] refers to absolute and not to average values.

Source: our elaboration on ADELE data, OUTWARD FATS 2007.

Table 2: Average values of selected affiliate' features - sectoral depiction

	Other industries	Direct Made in Italy	Indirect Made in Italy	Services
No. of foreign affiliates[a]	789	649	1010	4057
No. of foreign plants[a]	1065	1015	1295	5225
No. of employees	173.90	261.76	217.06	84.41
Turnover	102538.29	38938.13	51688.56	29299.69
FDI stock	16996.05	3851.22	1857.85	668.80
Labour costs	3480.11	3435.53	4001.93	2086.88
Total exports	44275.40	16639.94	14583.36	2389.04
Total imports	12202.66	12575.18	10431.56	4505.40
Value added	56014.31	10122.44	11876.45	5598.38
Intra-firm exports	6657.43	10476.73	8974.70	1561.51
Intra-firm imports	10242.73	10035.36	8736.36	4050.94
LP	305.93	37.67	48.00	60.03
REDSALE	0.32	0.16	0.14	0.19
LOCALMKT	0.81	0.51	0.59	0.86
EXPPLAT	0.13	0.21	0.14	0.04
INDEP	0.94	0.72	0.72	0.90
ARMSTOT	0.55	0.60	0.65	0.60
ARMSLOC	0.52	0.56	0.61	0.58

[a] refers to absolute and not to average values.

Source: our elaboration on ADELE data, OUTWARD FATS 2007.

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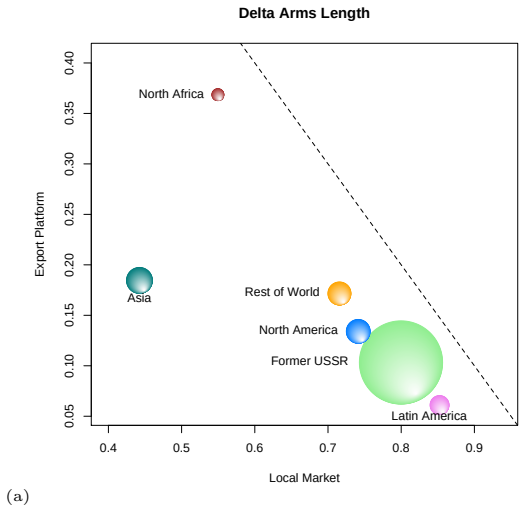
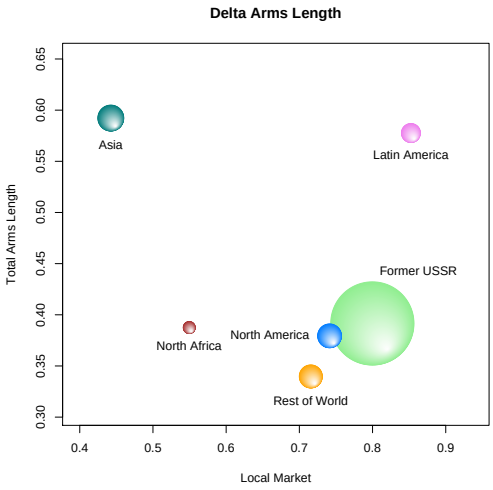
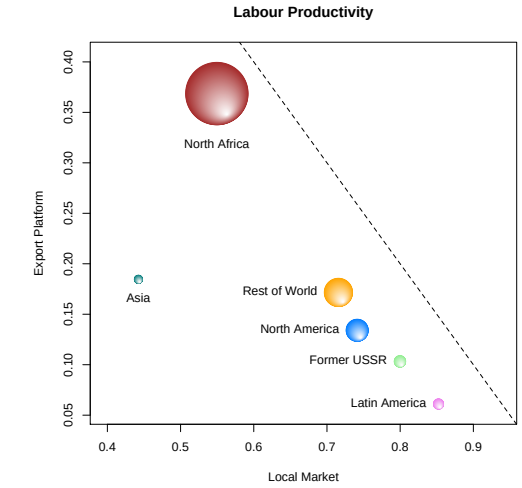


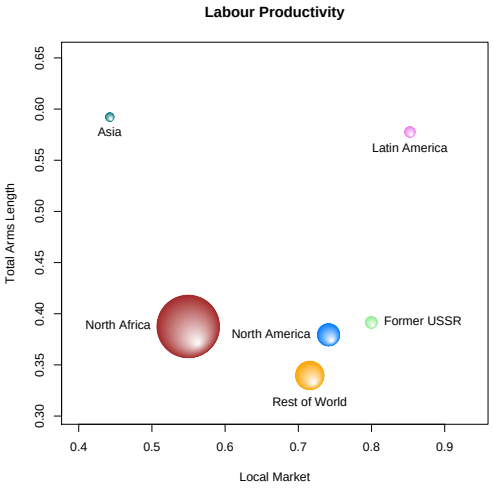
(a)



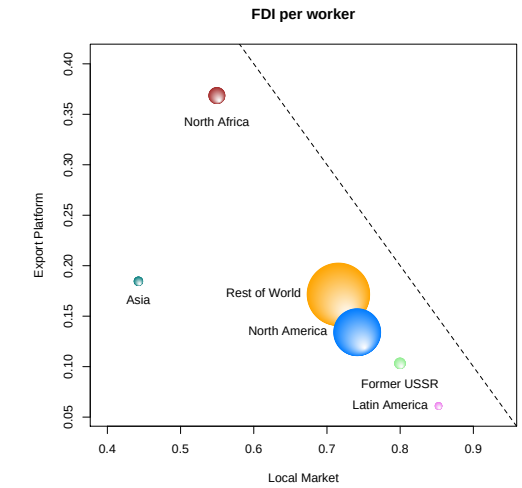
(b)



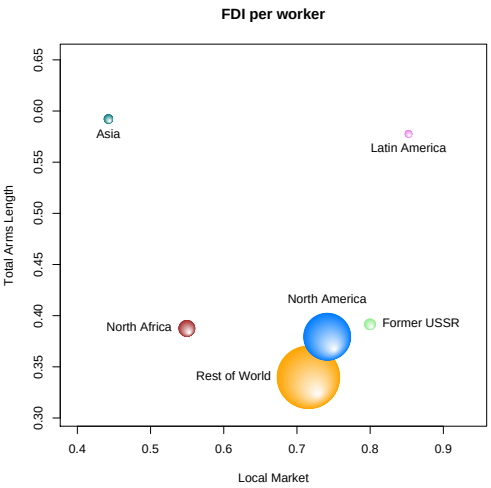
(c)



(d)



(e)



(f)

Figure 1: a, b: Δ Arms Length; c, d: Labour productivity; e, f: FDI per worker

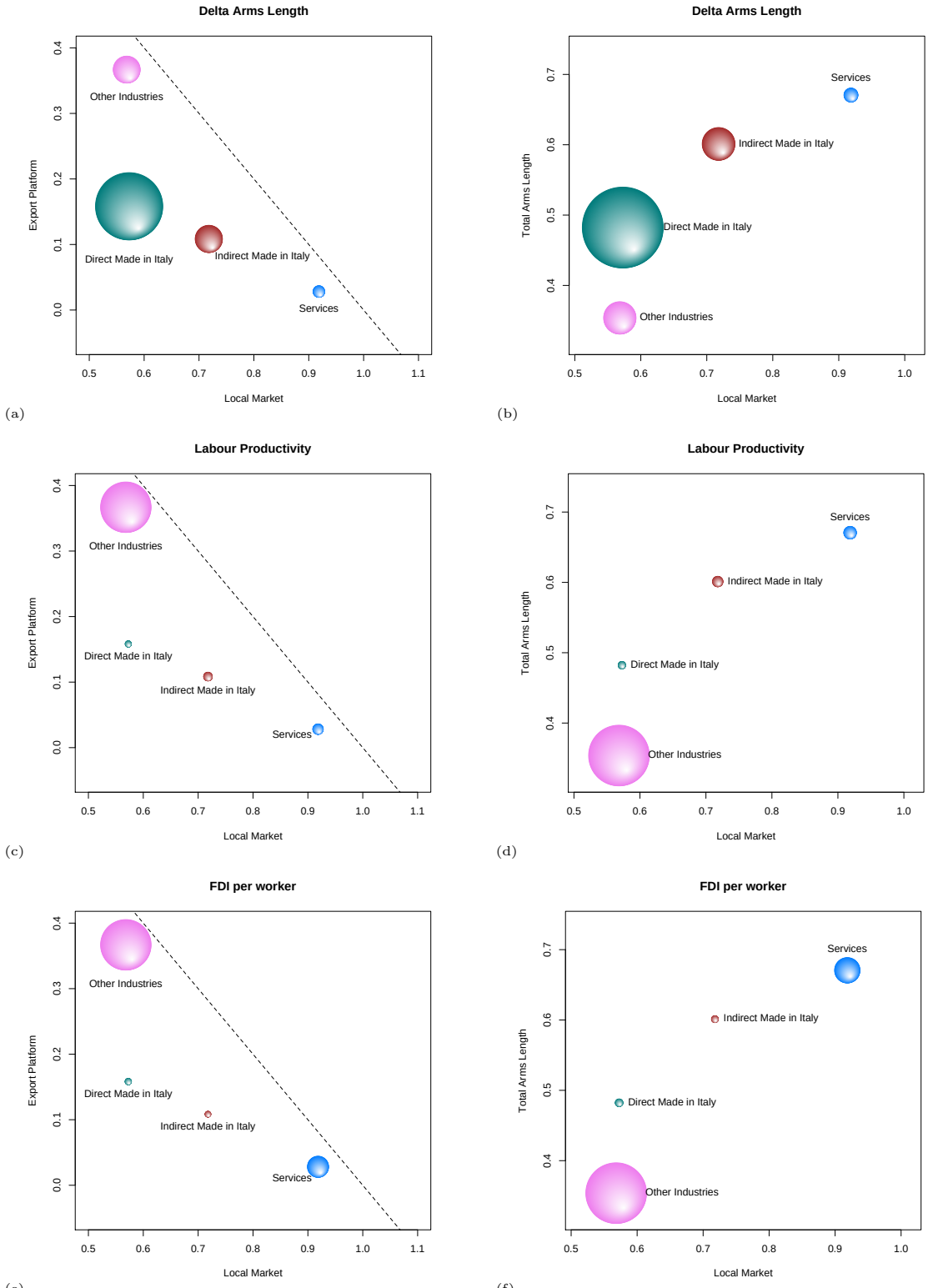


Figure 2: a, b: Δ Arms Length; c, d: Labour productivity; e, f: FDI per worker