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THE 'MARGIN CALL'.
EXPORT EXPERIENCE AND FIRM ENTRY INTO NEW EXPORT MARKETS

by Matteo Bugamelli[*], Andrea Linarello[*] and Roberta Serafini[**]

Abstract

We use firm-level data on the universe of Italian exporters to characterize the evolution of aggregate goods exports during the period 2000-15. We first decompose aggregate annual export dynamics into the intensive and the extensive margin, where the latter is further broken down into its firm, product and market components. We document that the intensive margin and, to a lesser extent, net market entry have been the main drivers of export growth, counterbalancing the negative effect coming from firms ceasing their exporting activity. The contribution of the intensive margin comes mostly from medium-large and, especially, more productive firms, while that of net market entry is concentrated among medium-sized firms. We then focus on market entry and ask which characteristics are more significant in affecting the probability that an already-exporting firm enters a new destination market. We focus in particular on the role of export experience and show that firm-destination specific dimensions, such as the distance between the new market and the closest market already served by the firm and the contiguity between the two, play an important role. These results show the prevalence of expansion strategies that follow a proximity principle.

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1. Introduction[1]

Recent advances in the international trade literature have highlighted the importance of firm heterogeneity in shaping aggregate trade flows (Bernard, Jensen, Redding and Schott, 2007; Bernard, Jensen, and Schott, 2009, Melitz and Redding 2014). Indeed, total export flows reflect the decisions of firms along different dimensions: whether to export or not, which and how many products to export, which and how many destinations to serve, and how much to sell of a given product in a given market.

A growing number of empirical studies have used custom-based transaction-level data to provide detailed evidence on previously undocumented features of foreign trade activities and, in particular, to explore the role of firms, products and destination markets in understanding trade patterns.[2] A detailed time series decomposition of export growth into the contribution of firms' entry/exit and of established exporters suggests that the latter largely account for short-term changes in US exports, while at longer horizons the contribution of net entry is significantly higher (Bernard, Jensen, Redding and Schott, 2009). Similar results have also been documented for other countries.[3]

We use a dataset on the universe of Italian exporters and provide a twofold contribution. First, to the best of our knowledge this is the first work to study how the different margins of adjustment of firms' export portfolios contribute to Italy's aggregate export growth. In particular, we adopt a very disaggregated perspective at the firm-product-destination level and consider four extensive margins: starting/stopping exports (*firm component*); accessing new export markets with products already sold in other export markets (*market component*); shipping products never sold abroad to already served or new destinations (*product component*); and shipping new products to new markets (*market-product component*). As a result, the intensive margin is given by the sales dynamics of a specific product in a specific market by an incumbent exporter.

We find that over the whole period under analysis, aggregate export growth on a yearly basis is mostly driven by the intensive margin (i.e. exports of products already sold to markets already served),

[2] See Wagner (2016) for a survey.
[3] For example, Spain between 1997 and 2007 (de Lucio, Minguez-Fuentes, Minondo and Requena-Silvante, 2011), Portugal between 1997 and 2005 (Amador and Opromolla, 2013), France from 1995 to 1999 (Aeberhardt, Buono and Fadinger, 2014)[3], Belgium during the trade collapse in 2008-2009 (Behrens, Corcos and Mion, 2013), Argentina during the export boom of 2003-11 (Albornoz, García Lembergman, and Juarez, 2018), and Ireland from 1996 to 2015 (Lawless, 2009; Lawless, Siedschlag and Studnicka, 2018).

especially for medium-large exporting firms. As to the extensive margins, the most important contribution comes from net market entry (for both continuing and newly exported products) by medium-sized firms. Net firm exits subtract from aggregate export growth, especially so during the trade collapse in 2008-09.

In the second part of the paper, we focus on the determinants of new market entry decisions. By exploiting our huge data variability across years, markets and firms, we find that features that are specific to the matching between the firm *and* the destination market explain a great deal of the observed patterns. We investigate in particular the role of export experience and distinguish a firm's *general* vs *market-specific* experience. By general export experience we mean a firm's past involvement in exporting activity that we measure through the amount of previous overall exports, the number of foreign markets already reached and the number of products already sold abroad. We find that all these measures are positively correlated with the probability of entering a new export market.

Then we examine the definition of export experience and show that experience accumulated in some *specific* markets is also important. While general experience is likely to increase the unconditional probability that a firm enters any new market, market-specific experience is likely to affect the probability of only exporting to certain markets. For example, suppose that a firm exports to the United States, then the experience accumulated there may affect the probability of entering Canada, but not the probability of entering any other market that is either equally distant from Italy (e.g. Bangladesh) or is a similar size (e.g. Saudi Arabia). Our results show that the probability of entering a new market is higher when a firm is already exporting to a contiguous market or to other markets where the same language is spoken; the distance between the target market and the closest market already served also decreases.

With this evidence, we contribute to a recent strand of literature focusing on the role of export experience in export performance. Motivated by the fact that the evidence of high entry rates into exporting with few initial sales and low survival rates is at odds with the hypothesis of high sunk costs to export, Albornoz, Fanelli and Hallak (2016) provide a theoretical model of experimentation and supporting empirical evidence to argue that entering firms must accumulate experience (i.e. export-specific knowledge) so that their optimal sequential entry strategy is to start with low exports and then expand through the intensive and extensive (market) margins only after the initial export performance reveal sufficiently high export profitability. They also show that the probability of survival two years after entry is positively affected by specific measure of export experience like contiguity and common language. Albornoz, García Lembergman and Juarez (2018) confirm the positive role of export experience for Argentina's export growth. Using Chilean firm-level data, Alvarez, Faruq and Lopez (2013) find that the probability of selling a new product in a new market is positively influenced by previous export ex-

perience in that market or product.[4] Using Irish firm-level data, Lawless (2013) finds that measures of export experience in geographically nearby markets increase the probability of Irish firms entering a new market and reduce the probability of exiting.[5]

Again, to the best of our knowledge, this is the first paper to study the role of export experience for firms' market entry decisions for a large European economy. For Italy, Secchi, Tamagni and Tomasi (2014) focus on the role of financial constraints and find that limited access to external finance is associated with fewer exported products and destination markets.

The paper is structured as follows. Section 2 describes the dataset and the main structural features of the population of Italian exporters. The dynamic analysis with the decomposition of export growth into the intensive and extensive margins of trade and by firm size and productivity is shown in Section 3. The next section presents the empirical analysis of the determinants of firm entry into new destination markets. The last section concludes.

2. Data and descriptive evidence

We use firm-level data on the universe of Italian exporting firms over the period 2001-15. The dataset merges two firm-level data sources: the Business Registry, which covers the universe of Italian firms and contains information on the industry of activities (4-digit Nace Rev. 2), number of persons employed and turnover;[6] customs data on all Italian foreign transactions disaggregated by exporting firm, products (classified according to 6-digit HS combined nomenclature classification) and destination market.[7]

The use of trade data needs some words of caution. First, shipments within EU are subject to the Intrastat system, which fixes an overall export value threshold (recorded in the reference quarter and/or in one of the four previous quarters) below which firms can opt for a simplified reporting scheme with no details on product type and market destination. It follows that the movement of a firm below or above the threshold is observationally equivalent to the exit from or the entry into exporting. Second, the severity of such a distortion is not constant over time, as the level of the threshold has changed at least four times in the last fifteen years: equal to €150,000 between 2001 and 2002, to

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[4] They use four indicators of export experience: the cumulative export value of the same product sold to other markets; the number of years exporting the same product to other markets; the cumulative export value of other products sold in the same markets; and the number of years exporting other products to the same market.

[5] Lawless's (2013) measures of export experience are also similar to ours. In particular, she uses a dummy variable equal to 1 if a firm is already exporting in a contiguous market, the intensity of the export flows in that contiguous market, the amount of exports already directed into the region where the new market is located and the 'marginal distance', defined as the smallest percentage distance from the target market to an existing export market of the firm.

[6] See Abbate, Ladu and Linarello (2017) and Linarello and Petrella (2017) for a detailed description of this dataset.

[7] Custom data do not include trade flows of firms belonging to the following Nace Rev. 2 industries: extraction of natural gas, and electric power generation, transmission and distribution.

€200,000 in 2003-2006, to €250,000 in 2007-2009, and to €50,000 euros afterwards. Since the reporting threshold for exports outside the EU amounts to €1,000 euros and has not changed over time, the fact that some countries[8] joined the EU over the period of analysis create further biases in the data. To deal with these critical issues we exclude from our sample all firms exporting less than €250,000 (the highest Intrastat threshold) to the set of EU member countries as of 2013 (the latest EU enlargement).

Another issue with our trade data is that the product classification used by customs is regularly updated. In our time period, the HS classification changed several times (in 2002, 2007 and 2012); in order to track product churning at firm-destination level properly, we need to account for these changes. We use a procedure developed by Van Beveren et al. (2012) to convert the original data into a consistent product classification. To do this, we adapt the original procedure covering the period 1988-2010 to our more recent sample period. This leaves us with more than 5,000 products consistently defined between 2000 and 2015.

The resulting dataset tracks aggregate flows quite well and it is therefore well suited for studying the micro determinants of aggregate data (Table 1). Overall, these exporting firms sell about 4,000 products abroad (out of the 5,000 available according to the HS classification) to about 220 destination markets. The annual number of exporting firms ranges between 111,000 and 127,000, with the lowest figures recorded after the Trade Collapse and the highest ones in the last few years. As shown in the last two columns of Table 1, our dataset covers about 65 per cent of the universe of Italian exporting firms, and more than 95 cent of aggregate goods exports in terms of values.

The majority of Italian exporters are micro and small enterprises (Figure 1a). About 60 per cent employ less than 9 workers (micro firms), a percentage that goes up to over 90 per cent when also including firms with 10-49 employees (small firms). These micro and small enterprises generate one quarter of total exports (Figure 1b). Larger firms have the opposite pattern: those with 50-249 employees (medium firms) are less than one tenth of all exporting firms but account for almost 30 per cent of total exports; large firms (250+ employees) count for no more than 2 per cent in terms of number of firms but for about 45 per cent in terms of export flows.

The fact that the population of exporters is composed of a large number of very small firms which are relatively unimportant in terms of sales and a handful of medium-large ones exporting significant amounts is common across the main European economies (Mayer and Ottaviano, 2011; Berthou et al., 2015). Yet Italy stands out since it has a more left-skewed distribution of exporters and exports by firm size. According to OECD data, Italy has the largest number of micro enterprises: two times higher than in Spain, 1.5 times than in France and 1.2 times than in Germany (Figure 2a). Interestingly, these nu-

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[8] Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia in 2004, Bulgaria and Romania in 2007 and Croatia in 2013.

merous Italian micro exporters do not generate a relatively higher amount of exported values than in the other main European economies: it is even smaller than that of analogous German and France exporters (Figure 2b). On the other hand, large exporters are in Italy (and Spain) much fewer and much less important in terms of exported flows than in France and especially in Germany. Germany and Italy stand out because of the number and the exported values of small exporters; the same applies to medium-sized exporters, which are relatively more important in Italy.

A population of exporters biased towards micro and small firms has a limited degree of product and geographical diversification. The average number of destination markets and products is just above 1 among micro exporters, and remains below or at most at 5 among exporters with 10-49 employees (Figure 3). Medium-size exporters sell about 10 products on average to more than 15 destinations, while the largest ones sell more than 20 products to almost 30 markets. On average over the whole period 2000-15, about 30 per cent of Italian exporters sell one product to one destination market, more than 40 per cent sell less than five products to only one destination market, and almost two-thirds sell less than five products in less than five markets (Table 2). Firms selling more than 10 products to more than 20 markets account for 7 per cent in terms of number of exporters and 60 per cent in terms of total exports.[9]

Has this structure changed over time? As shown in Figure 4 (left panel), since 2000 the number of exporting firms with less than 20 employees has increased monotonically: until 2008 this was mainly due to the 10-19 size-class, while from 2009 onwards the rise has been sharper among micro-enterprises (0-9). As to the other size classes, in the pre-crisis period the number of both medium-sized (50-249) and large (250+) exporters increased slightly, while it declined later on. Overall, it seems that the adoption of the euro and the strengthened currency stability have favoured the internationalization of Italian firms, especially of micro and small ones. The average export per firm increased for all size classes, although at different paces, except for micro firms where it actually declined (Figure 4, right panel). Both before the crisis and after 2010 this trend has been stronger for medium and large firms than for small ones. All categories recorded a sharp drop in average export values during the 2008-09 trade collapse.[10]

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[9] Evidence on the importance of few multi-product and multi-market firms for total exports is found in Eaton, Kortum and Kramarz (2004) and Mayer and Ottaviano (2007) for France, in Muûls and Pisu (2009) for Belgium, and in Bernard, Jensen, Redding and Schott (2007, 2009 and 2012) and Bernard, Redding and Schott (2010) for the US.

[10] The dynamics of Italian exports after the trade collapse are the result of two opposing forces: on one hand, the strong decline in the average sales of micro and small firms exerted a drag on aggregate exports, despite their growing number; on the other hand, fewer medium-sized and large firms recorded a sharp increase in their average sales, thus supporting total exports. This recomposition from smaller to larger exporters started before the crisis and accelerated afterwards, contributing to a sort of a structural change in the population of exporters (Bugamelli, Fabiani, Federico, Felettigh, Giordano and Linarello, 2017).

3. Intensive and extensive margins

We now link the economic structure just described and its evolution over time to the dynamics of aggregate exports (X) in a more systematic way. The relative importance of the extensive and intensive margins in driving aggregate exports can be assessed by classifying a firm i on the basis of its export status over two consecutive years. More specifically, we classify continuing exporters (C) as those exporting both at t and t-1, firms exiting from the exporting activity (EX) as those exporting at t-1 but not at t, and firms entering the exporting activity (EN) as those exporting at t but not at t-1. Total export growth can therefore be expressed as follows:

$$\frac{X_t - X_{t-1}}{X_{t-1}} = \sum_{i \in C} \frac{x_{i,t} - x_{i,t-1}}{X_{t-1}} + \sum_{i \in EN} \frac{x_{i,t}}{X_{t-1}} - \sum_{i \in EX} \frac{x_{i,t-1}}{X_{t-1}} \tag{1}$$

where the first term on the right-hand side represents the contribution of the intensive margin and the latter two represent the gross entry and exit flows which, when combined, define the extensive margin.[11] As found for other advanced economies, over the period 2001-2015, Italy's export dynamics were primarily driven by adjustments to the intensive margin (Table 3). The role of the extensive margin in annual export growth was instead very modest, as the contribution of new exporters and firms exiting the export market (corresponding to about 20 per cent of the population of exporters) roughly cancelled it out.

By exploiting the firm-product-destination detail of customs data, we can aim for a more precise definition of the intensive and extensive margins. In particular, we can single out two new extensive margins within the previously defined intensive margin in the following way:

$$\frac{X_t - X_{t-1}}{X_{t-1}} = \underbrace{\sum_{i \in C} \sum_{p \in E} \sum_{d \in E} \frac{x_{ipd,t} - x_{ipd,t-1}}{X_{t-1}}}_{intensive\ margin} + \tag{2}$$

$$\underbrace{\sum_{i \in C} \sum_{p \in N} \sum_{d \in E} \frac{x_{ipd,t}}{X_{t-1}}}_{product\ entry} - \underbrace{\sum_{i \in C} \sum_{p \in D} \sum_{d \in E} \frac{x_{ipd,t-1}}{X_{t-1}}}_{product\ exit} +$$

$$\underbrace{\sum_{i \in C} \sum_{p \in E} \sum_{d \in N} \frac{x_{ipd,t}}{X_{t-1}}}_{market\ entry} - \underbrace{\sum_{i \in C} \sum_{p \in E} \sum_{d \in D} \frac{x_{ipd,t-1}}{X_{t-1}}}_{market\ exit} +$$

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[11] It should be noted that entry and exit in equation (1) by definition include occasional exporters, i.e. firms selling abroad only in t but not in t-1 and t+1. Since in theory they do not bear any significant sunk entry cost but sell whenever they have a cheap opportunity, occasional exporters should be singled out and not mixed with 'true' entry and exit. In fact, we have opted to keep them in the extensive margin since their contribution to aggregate exports is extremely limited, about 0.5 per cent, despite their relatively higher number (15 per cent of exporting firms in a given year). The high share of occasional exporters and their small contribution to aggregate exports is common to other countries: Besedes (2008) for the US; Eaton, Kortum and Kramarz (2007) for Colombia; and Amador and Opromolla (2013) for Portugal.

$$\underbrace{\sum_{i \in C} \sum_{p \in N} \sum_{d \in N} \frac{x_{ipd,t}}{X_{t-1}}}_{product\&market\ entry} - \underbrace{\sum_{i \in C} \sum_{p \in D} \sum_{d \in D} \frac{x_{ipd,t-1}}{X_{t-1}}}_{product\&market\ exit} +$$

$$+ \underbrace{\sum_{i \in EN} \frac{x_{i,t}}{X_{t-1}}}_{firm\ entry} - \underbrace{\sum_{i \in EX} \frac{x_{i,t-1}}{X_{t-1}}}_{firm\ exit}$$

where E, N and D represent partitions of the set of products and the set of destination markets into existing, new and dropped/abandoned, respectively. The intensive margin consists of the export value associated with continuing trade relations, i.e. to all the product-destination pairs shipped by the same firm over two consecutive years, while the extensive margin captures the contribution of new and abandoned relations. The latter includes not only the contribution of firms' entering and exiting the export market, as in equation (1),[12] but also the contribution of surviving firms adjusting their export portfolio (through adding/dropping products, entering/exiting specific destinations, or both). In other words, equation (2) highlights the role of within-firm products/markets reallocation in driving aggregate trade. More specifically, we classify as product entry the exports of new products that start being sold in destinations already reached by a given exporting firm. Product exit, instead, refers to products no longer exported to a destination where a firm continues to sell other products. As such, the product extensive margin refers only to the introduction into or the dropping of products from destination markets already served by a firm. Similarly, the contribution of the market component to the extensive margin refers to those cases where a firm starts to serve a new destination with a product already exported elsewhere or exits a market but keeps exporting that product to other destinations. Finally, an exporting firm may start/stop shipping a given product-market pair: this is recorded as an entry/exit of both product and market.

The yearly evolutions of the different margins are reported in Table 4. Focusing on the average over the whole period under analysis, when the yearly aggregate export growth amounted to 3.5 per cent, the main contribution has come from the intensive margin (2.7) and, though to a lesser extent, the market extensive margin (0.6), mostly with old but also with new products.[13] Due to a high product churning, the contribution of the product extensive margin has been relatively smaller (0.2), while net firm entry has subtracted from aggregate growth (-0.2).

[12] As pointed out in section 2 above, as far as trade with other EU countries is concerned, a shift below (above) the Intrastat threshold would wrongly indicate exit from (entry to) the export markets. Therefore, in order to capture the true dynamics of firms' entry/exit here we use the export status information from the business registry indicating for each year whether a firm participates in trade in the previous year and/or in the following one.
[13] The evidence that incumbent exporters widened their range of activity by accessing new markets for existing products is in line with what was found by Amador and Opromolla (2013) for Portugal.

Some interesting differences emerge after distinguishing the three sub-periods. Before the crisis, the higher aggregate export growth rate (5.1 per cent on average per year) benefited from the positive contribution of net firm entry. During the trade collapse of 2008-10 (-1.4 per cent on average per year) the intensive margin and net firm entry gave a strongly negative contribution only partially compensated by net market entry. During the subsequent recovery (4.3 per cent on average per year), the positive contributions of the intensive margin and net market entry have become even stronger, such as the negative contribution from net firm entry. [14]

We now exploit firm-level information provided by the business registry to better characterize the margins distinguishing the contribution of firms with different size or productivity levels (measured by revenue per worker, in nominal terms). Table 5 focuses on firm size. In all the periods, the intensive margin has reflected the export performance of medium- and large-sized firms, while micro firms have recorded a reduction in the size of their established trade relations (with the sole exception of the trade collapse). While there are few differences in terms of firm size as regards net product entry, the evolution of net market entry has been much stronger among medium-sized firms (20-250 employees) which consistently followed strategies of market expansion in all the three cyclical phases.

Table 6 looks at firm productivity levels. In line with the international trade literature with heterogeneous firms, the distribution of export dynamics by productivity turns out to be more polarized than that by firm size: the dynamics of aggregate exports are almost entirely driven by the most efficient exporters through their intensive margin and, to a lesser extent, their capacity to enter new destination markets. As for firm size, this trend is common to the pre-2007 and post-2010 periods; during the trade collapse, the most efficient exporters reduced sales from their consolidated trade relationships.

Overall, our results show that Italian export growth has been driven by large and productive firms expanding their sales of products in markets where they were already exporting. As we have already discussed in the introduction, these patterns are common to many developed and developing countries (see Wagner (2016) for a survey). Interestingly, however, our analysis of aggregate export growth also shed light on the importance, among the extensive margins, of the geographical expansions of already exporting firms into new markets. The importance of this market extensive margin, which roughly accounts for 18 per cent of observed export growth in Italy between 2000 and 2015 (Table 4), raises some interesting questions about what drives a firm's decision to enter a new foreign market. In the next section, we will focus on market, firm and firm-destination specific characteristics and their effect on the probability of entering a new market.

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[14] While in 2008-10 the negative contribution of net firm entry was due to a net exit of about 4,000 firms, afterwards it was the result of the lower exported value generated by the net entry of about 2,000 firms.

4. The drivers of market entry

In this section we empirically analyse the determinants of firm entry into new export markets. In particular, we focus on how firm-specific export experience affects the entry decision.[15] While in the standard gravity model exports between countries are driven by bilateral distance and market size (Head and Mayer, 2015), in trade models with heterogeneous firms, the decision to export is determined by a selection based on firm productivity and destination specific fixed export costs (Melitz, 2003). Even controlling for productivity, however, when firms sell their products in foreign markets they accumulate knowledge about exporting that in turn can be used to ease the access to other markets. Exporters, for example, can learn from their foreign customers to improve the quality of their products and increase their appeal to other customers.[16] In our empirical analysis, we go one step further and distinguish between *general* export experience, which refers to overall firm-specific exporting activities, and *market-specific* experience, which is related to specific characteristics of the markets where the firm actually already operates.

The empirical analysis of the entry decision is problematic because in many applications the definition of the population of potential entrants is non-trivial. Our focus on the entry decision in new markets by firms already exporting provides us with a natural definition of potential entrants: all firms that were already exporting to other markets. To perform our empirical analysis, we build a dataset where each entry is a firm-destination-year triple; in our dataset, we keep all firms that were exporting in year *t-1* and continue to export in year *t*. We then define our main variable of interest as a dummy variable for market entry, which is equal to one if a firm starts exporting to a particular destination. Our final dataset contains about 5 million observations per year with an average probability of entry of about 3 per cent.

In the search for the best empirical specification, we first regress the probability of entering a new market on different sets of fixed effects to identify which dimensions are more significant. The fixed costs borne by firms when entering a new market can vary across destinations but are common across firms, or they can vary across firms but are common across destinations, or can even be firm-destination specific. The results of the regressions are very stark: R^2 is close to zero when only year and destination fixed effects are included, it grows to about 6 per cent when firm fixed effects are also added and to 10 per cent with year*firm fixed effects; R^2 jumps to 40 per cent with firm*destination fixed effects. This means that the most important determinants of the decision to enter a new foreign market

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[15] We do not look at export survival after entry. While this is an interesting question, this has already? been the focus of several studies (see among others Albornoz et al., 2016).

[16] It has to be acknowledged that there is also a positive feedback loop between firms' productivity and export experience, the learning-by-exporting, i.e. firms also become more productive as they enter new markets (De Loecker, 2013), and this in turn may affect the probability of exporting.

have to be searched for in time-varying firm characteristics and especially in the interplay between firm-specific and destination-specific features.

In Table 7 we start with a simple regression where the probability of entering a new market is regressed on standard destination market features like GDP (both level and growth), GDP per capita, distance from Italy, and changes in the bilateral nominal exchange rate; we control for year fixed effects and, in the last column, destination fixed effects. Our aim here is to check whether the data obey expected patterns that a standard gravity model would predict: in fact, we find that market access is actually more likely in larger, richer and less distant countries.

We then move to our fully-fledged specification and estimate the following linear probability model:

$$\mathbb{I}(X_{i,m,t} = 1 | X_{i,m,t-1} = 0) = a + \beta_0 logsize_{i,t-1} + \beta_1 logprod_{i,t-1} + \beta_2\, XEXP1_{i,t-1} + \beta_3 XEXP2_{i,m,t-1} +$$

$$+ \delta_{m,t} + \varepsilon_{i,m.t} \tag{3}$$

where i identifies firms, m the destination market and t time. The previous gravity-like variables are dropped and controlled for by using time-varying destination fixed effects ($\delta_{m,t}$). The first two variables that we add to our regressions are firm size ($logsize_{i,t-1}$) and firm productivity ($logprod_{i,t-1}$) measured in year t-1; the former is measured as log of employees, while the latter as log sales per worker. Both measures aim at capturing the effect of firm-specific characteristics on the ability to successfully enter a new market. Finally, we enrich our specification with two vectors of export experience variables. The first one ($XEXP1_{i,t-1}$) is firm-specific and aims at capturing the *general experience* that the firm has accumulated in terms of sales in foreign markets. Here we use: i) the log of total exports ($logexp$); ii) a set of dummy variables for the number of products already sold abroad ($D\#prod$); and iii) a set of dummy variables for the number of foreign markets already served ($D\#mkt$). The second group of export experience variables ($XEXP2_{i,m,t-1}$) refers to firm and destination specific features, i.e. to the firm's *market-specific export experience*. In particular, we use a measure of the distance between the destination market m to be entered and the closest destination market already served ($closemkt$), a dummy variable equal to 1 if the firm is already exporting to a market which is contiguous to m ($contig$), and another dummy variable equal to 1 if the firm is already exporting to a country with the same language as that spoken in the destination market m ($lang$).

Table 8 presents the results when we only add firm-specific characteristics such as size and productivity to our regressions. As shown in column 1-4, there is a significant and positive relationship between firm size – both as a continuous (column 1) or dummy variable (column 3) – and productivity on one side and the probability of entering a new market on the other side. The results also hold when firms' fixed effects are included (columns 2 and 4). Our point estimates imply that moving from the

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25th to the 75th percentile of the firm size distribution increases the probability of entering a new market by 1 percentage point, which is one third of the observed unconditional entry probability.

In Table 9, we enrich the specification of column 1 of Table 8 with firms' general export experience. The results are quite robust and consistent across different specifications: the size of previous exports and the number of destination markets already reached increases the probability of a firm entering a new export market. The same is, though less neatly, also true for the number of products already exported. It is important to notice that the variables that we use to capture the export experience accumulated by firms are important independently of firm size and productivity. In other words, the effect of entering an additional market increases significantly with the number of destinations already reached, even controlling for firm size and productivity. Quantitatively, the probability of entering a new market is 5 times larger, relative to the average probability of entry, for firms that already export to more than 50 destinations.

As to size and productivity, a close comparison with the results of Table 8 shows that while the point estimates of firm size are remarkably similar, those of productivity are much smaller. This is likely to be driven by the fact that most productive firms exports many products to many markets so that the export experience variables and productivity are highly correlated.

In Table 10, we add a firm's export experience that is specific to the destination market to be entered. As shown in the first four columns, access to a new market is more likely when the firm is already selling to close or even contiguous markets and to markets sharing the same language. Controlling for firms' fixed effects (column 5) or even time-varying fixed effects (column 6) does not change the results, with the sole exception of the common language dummy which loses statistical significance. There are several reasons why market specific experience could play an important role. One possibility, for example, is that firms can easily expand in those markets where they can exploit pre-existing networks of their customers; another possibility is that physical and cultural proximity makes consumer tastes more similar, thus allowing firms to better predict foreign demand; a third channel is that closer markets are more likely to share common practices, legal frameworks and institutions, so that the experience accumulated in one market allows firms to face lower fixed entry costs in the other market.

5. Conclusion

This paper studies the evolution of Italian aggregate exports through the lens of detailed trade data on the universe of exporters. We provide a simple decomposition of aggregate export dynamics into intensive and extensive margins of trade where the latter are broken down into three different components: firm, market and product. This kind of exercise is very informative, also for policy purposes, to identify the main channels through which aggregate exports move in the different cyclical phases. The

merging of trade statistics with business registry data allows us to better qualify the different margins highlighting the role of firm heterogeneity.

In line with the Happy Few argument by Mayer and Ottaviano (2007), we find that aggregate export flows follow the intensive margin closely, measured here at the firm-product-destination level, which is in turn largely dominated by the most productive and medium-size and large firms.

As to the extensive margins, the most important contribution to aggregate dynamics comes from the entry into new destination markets of firms that are already exporting somewhere else. Considering that the distribution of Italian exporters is quite skewed toward firms exporting to very few markets it comes as no surprise that market diversification and expansion is an important driver for export dynamics. Thus we study the determinants of market entry to find that the probability of accessing new destinations is positively correlated not only to standard features like firm size and productivity but also to a firm's previous export experience. Interestingly, the latter has some firm-destination specific features such as the distance between the target market and the closest market where the firm is already exporting.

This means that firms' expansion strategies in international markets follow a proximity principle, a result that should be taken into account by policies aimed at helping established exporters to enter new and distant markets.

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FIGURES AND TABLES

Figure 1

(a)
Share of exporting firms by size class
(percentages)

Source: Istat

(b)
Share of exports by size class
(percentages)

Source: Istat

Figure 2

(a)
Number of firms by size class, 2013
(thousands)

Source: OECD

(b)
Export value by firm size, 2013
(millions of euros)

Source: OECD

Figure 3

Number of products and destinations, by firm size. 2000-2015
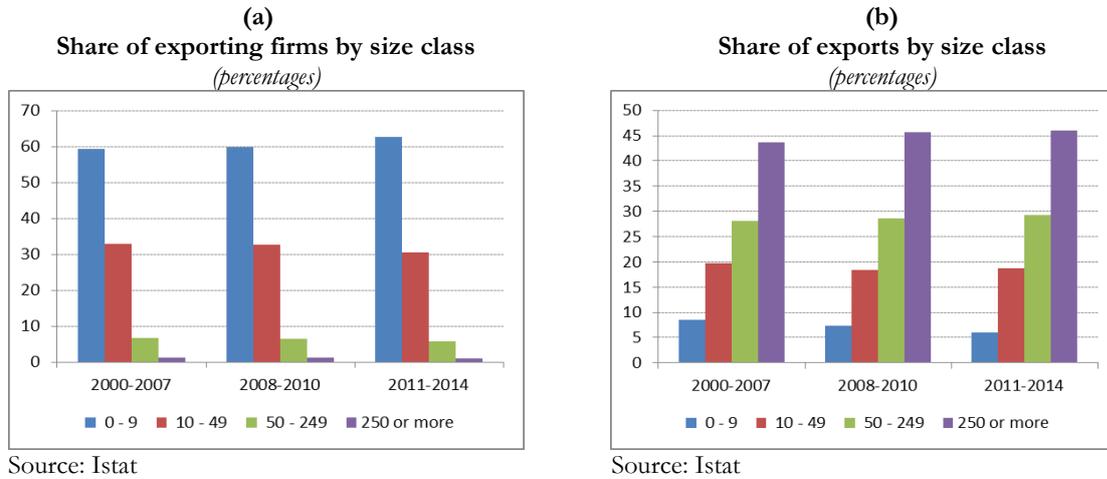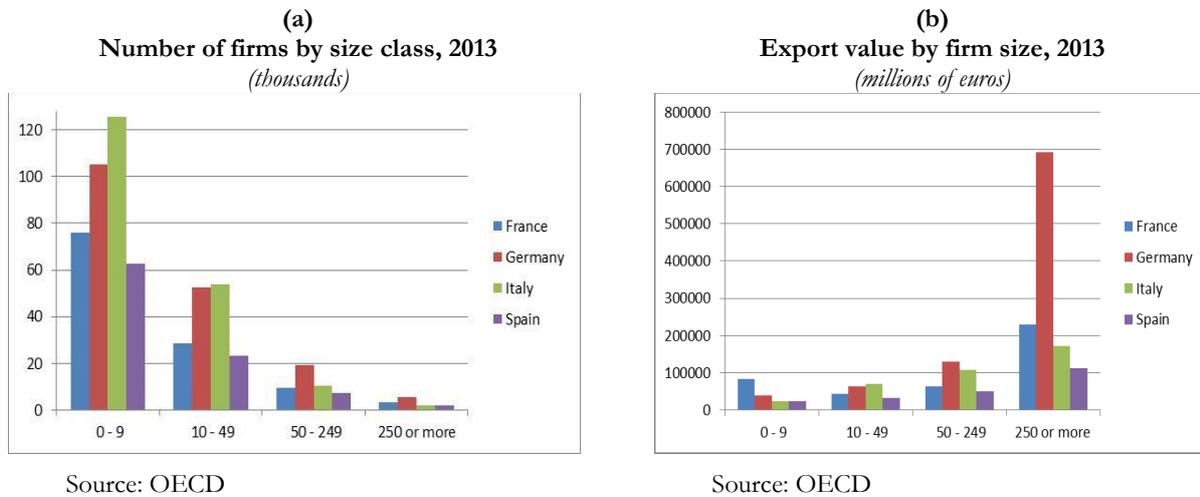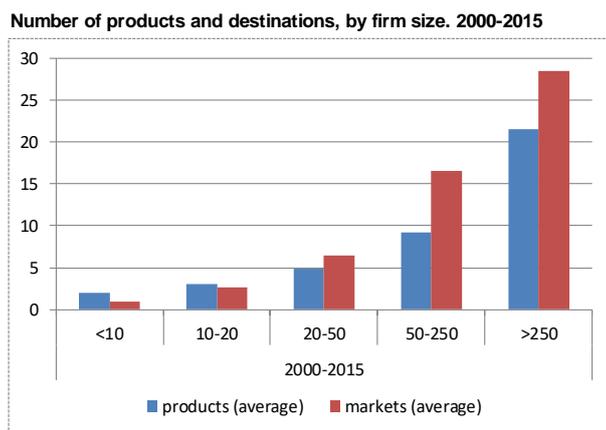
Figure 4

(a) **Number of firms by size class** *(2000=100)*
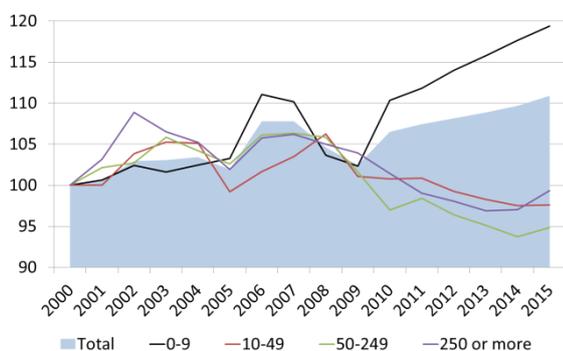
(b) **Average export by size class** *(2000=100)*
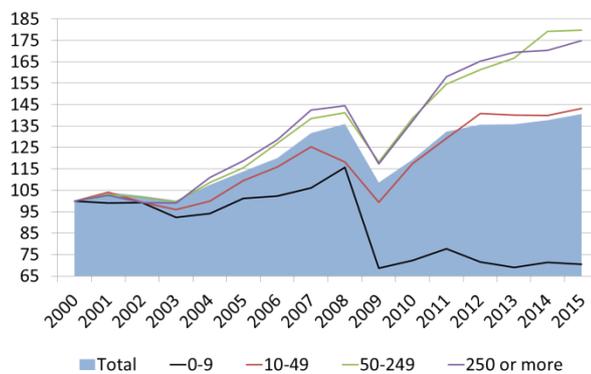
Source: Istat

Source: Istat

Table 1

Customs data: descriptive statistics
(number; billions of euros and percentages)

year	Firms	Products	Destinations	Total Exports	Share of Exports (a)	Share of firms (a)
2000	112100	4029	214	242.1	98.4	85.2
2001	115112	4025	214	254.3	97.0	69.7
2002	117990	4028	226	254.9	96.5	69.9
2003	115563	4026	224	244.0	94.3	68.4
2004	115730	4036	222	268.1	96.1	68.6
2005	112718	4026	224	271.7	92.6	67.2
2006	116991	4010	227	303.7	94.2	67.7
2007	117168	4029	223	340.1	95.6	68.5
2008	116920	4029	221	340.1	95.3	66.0
2009	111395	4013	220	269.1	95.6	66.8
2010	116485	4017	222	314.4	96.8	66.4
2011	120554	4014	224	348.2	96.2	67.6
2012	124975	4013	221	359.9	96.1	68.1
2013	127506	4004	224	363.0	98.0	69.4
2014	125790	4013	218	370.7	97.9	68.8
2015	126480	4005	218	383.4	98.1	68.6

Coverage is assessed against the aggregate export value and the universe of exporting firms, as released by Istat

Table 2

Distribution of trading firms and exports, by number of products and number of destinations. % of total

period-average	products	destinations 1		2		3-5		6-9		10-19		20+		Total	
		firms	exports	firms	exports	firms	exports	firms	exports	firms	exports	firms	exports	firms	exports
2000-2007	1	28.7	0.6	2.3	0.3	1.4	0.5	0.4	0.3	0.3	0.3	0.1	0.2	33	2
	2	7.5	0.3	5.0	0.3	2.2	0.5	0.7	0.4	0.5	0.5	0.2	0.4	16	2
	3-5	5.2	0.4	4.3	0.4	6.5	1.3	2.4	1.5	2.0	2.5	1.0	3.6	21	10
	6-9	1.2	0.2	1.0	0.2	2.8	0.9	2.3	1.4	2.5	3.0	1.7	5.6	11	11
	10+	0.9	0.4	0.7	0.4	1.8	1.2	2.2	2.2	4.5	8.1	8.1	62.3	18	75
	Total	**43.5**	**1.9**	**13.2**	**1.6**	**14.7**	**4.4**	**8.0**	**5.8**	**9.7**	**14.3**	**10.9**	**72.0**	**100**	**100**
2008-2010	1	32.0	0.6	2.3	0.4	1.5	0.4	0.5	0.4	0.3	0.4	0.1	0.2	37	2
	2	7.1	0.3	4.9	0.3	2.3	0.6	0.8	0.4	0.7	0.7	0.2	0.7	16	3
	3-5	4.7	0.3	3.9	0.4	6.1	1.2	2.3	1.3	2.2	2.8	1.3	4.9	21	11
	6-9	1.0	0.2	0.8	0.2	2.4	0.7	2.1	1.2	2.3	2.8	2.0	6.4	11	11
	10+	0.7	0.5	0.5	0.4	1.5	1.1	1.9	1.9	3.9	6.9	7.6	61.5	16	72
	Total	**45.5**	**2.0**	**12.5**	**1.6**	**13.8**	**4.0**	**7.6**	**5.2**	**9.3**	**13.5**	**11.3**	**73.8**	**100**	**100**
2011-2015	1	32.4	0.5	2.4	0.2	1.5	0.5	0.5	0.3	0.4	0.3	0.1	0.2	37	2
	2	6.9	0.2	4.9	0.2	2.3	0.5	0.8	0.5	0.6	0.6	0.3	0.6	16	3
	3-5	4.7	0.3	3.8	0.5	5.9	1.1	2.4	1.2	2.2	2.6	1.4	4.8	20	10
	6-9	1.1	0.2	0.8	0.2	2.3	0.6	1.9	1.0	2.2	2.7	2.1	7.7	11	12
	10+	0.8	0.4	0.6	0.3	1.5	1.2	1.9	1.7	3.7	6.3	7.5	62.5	16	72
	Total	**45.9**	**1.7**	**12.4**	**1.4**	**13.6**	**3.9**	**7.5**	**4.7**	**9.1**	**12.5**	**11.4**	**75.9**	**100**	**100**
2000-2015	1	30.5	0.6	2.3	0.3	1.5	0.5	0.5	0.3	0.3	0.3	0.1	0.2	35	2
	2	7.2	0.3	4.9	0.3	2.3	0.5	0.7	0.4	0.6	0.6	0.2	0.5	16	3
	3-5	5.0	0.4	4.1	0.4	6.2	1.2	2.4	1.4	2.1	2.6	1.2	4.2	21	10
	6-9	1.2	0.2	0.9	0.2	2.6	0.8	2.1	1.2	2.4	2.8	1.9	6.4	11	12
	10+	0.8	0.4	0.6	0.4	1.7	1.2	2.1	2.0	4.1	7.3	7.8	62.2	17	74
	Total	**44.6**	**1.8**	**12.8**	**1.5**	**14.2**	**4.2**	**7.7**	**5.3**	**9.5**	**13.6**	**11.2**	**73.5**	**100**	**100**

Table 3

Decomposition of export growth into the intensive and extensive margins

	Export growth (y-o-y % change)	Intensive margin	Extensive margin	of which: new entrants (i∈EN)	Number of entries, % of total	not anymore exporting (i∈EX)	Number of exits, % of total
2001	5.0	5.1	-0.1	2.3	20	-2.5	19
2002	0.2	0.7	-0.4	2.7	20	-3.1	19
2003	-4.3	-3.6	-0.7	2.4	18	-3.1	19
2004	9.9	10.3	-0.4	2.3	19	-2.8	19
2005	1.4	0.2	1.2	1.9	17	-0.7	18
2006	11.8	10.8	0.9	3.1	21	-2.2	19
2007	12.0	11.8	0.2	2.5	19	-2.3	20
2008	0.0	1.6	-1.6	1.5	20	-3.1	20
2009	-20.9	-20.5	-0.4	1.9	19	-2.3	22
2010	16.8	17.6	-0.8	2.1	21	-2.8	20
2011	10.8	11.3	-0.5	1.4	21	-1.9	19
2012	3.4	3.8	-0.4	1.1	22	-1.4	20
2013	0.8	1.0	-0.1	1.2	22	-1.3	22
2014	2.1	2.0	0.1	1.3	22	-1.2	22
2015	3.4	3.6	-0.2	1.5	21	-1.7	21

Table 4

Decomposition of export growth into different margins

	Export growth a)	Intensive Margin b)	Extensive margin c)	Firm Entry d)	Firm Exit e)	Firm Net f)	Product Entry g)	Product Exit h)	Product Net i)	Market Entry l)	Market Exit m)	Market Net n)	Product&Market Entry n)	Product&Market Exit n)	Product&Market Net n)
2001	5.0	4.8	0.2	2.3	-2.5	-0.1	2.8	-2.5	0.3	3.5	-3.5	-0.1	1.0	-0.9	0.1
2002	0.2	-0.6	0.9	2.7	-3.1	-0.4	3.1	-2.6	0.5	3.4	-2.7	0.7	1.0	-0.9	0.1
2003	-4.3	-3.2	-1.1	2.4	-3.1	-0.7	2.3	-2.5	-0.2	2.6	-3.0	-0.4	0.9	-0.8	0.1
2004	9.9	9.1	0.8	2.3	-2.8	-0.4	2.9	-2.5	0.4	3.4	-2.7	0.7	1.1	-0.9	0.2
2005	1.4	-0.5	1.8	1.9	-0.7	1.2	2.2	-2.3	-0.1	3.1	-2.4	0.7	1.0	-0.9	0.1
2006	11.8	9.7	2.0	3.1	-2.2	0.9	4.1	-4.0	0.1	3.5	-2.6	0.8	1.0	-0.8	0.2
2007	12.0	8.4	3.6	2.5	-2.3	0.2	3.8	-2.4	1.4	3.6	-2.4	1.3	1.5	-0.8	0.7
2008	0.0	0.7	-0.7	1.5	-3.1	-1.6	2.3	-2.1	0.2	3.0	-2.7	0.3	1.2	-0.9	0.3
2009	-20.9	-19.3	-1.6	1.9	-2.3	-0.4	1.9	-2.3	-0.4	3.0	-3.5	-0.5	0.8	-1.1	-0.3
2010	16.8	15.2	1.6	2.1	-2.8	-0.8	2.7	-2.4	0.3	4.5	-3.0	1.5	1.4	-0.9	0.5
2011	10.8	9.4	1.3	1.4	-1.9	-0.5	2.3	-2.1	0.2	3.9	-2.5	1.5	1.0	-0.8	0.2
2012	3.4	3.1	0.3	1.1	-1.4	-0.4	1.9	-2.0	-0.1	3.1	-2.6	0.6	0.9	-0.7	0.2
2013	0.8	-0.5	1.3	1.2	-1.3	-0.1	2.1	-1.9	0.3	3.6	-2.7	0.8	1.2	-0.9	0.3
2014	2.1	1.7	0.4	1.3	-1.2	0.1	2.0	-1.8	0.2	2.8	-2.8	0.0	0.8	-0.7	0.1
2015	3.4	3.0	0.4	1.5	-1.7	-0.2	1.6	-1.7	-0.1	2.8	-2.2	0.6	0.8	-0.6	0.2
2001-2007	5.1	4.0	1.2	2.5	-2.4	0.1	3.0	-2.7	0.3	3.3	-2.8	0.5	1.1	-0.9	0.2
2007-2010	-1.4	-1.1	-0.2	1.8	-2.7	-0.9	2.3	-2.2	0.0	3.5	-3.0	0.5	1.1	-0.9	0.2
2010-2015	4.1	3.4	0.7	1.3	-1.5	-0.2	2.0	-1.9	0.1	3.2	-2.6	0.7	1.0	-0.7	0.2
2001-2015	3.5	2.7	0.7	1.9	-2.2	-0.2	2.5	-2.3	0.2	3.3	-2.8	0.6	1.1	-0.8	0.2

Table 5

Decomposition of annual average export growth into different margins, by size class

period average	Number of employees	Export growth	Intensive Margin	Extensive margin	Firm Entry	Firm Exit	Firm Net	Product Entry	Product Exit	Product Net	Market Entry	Market Exit	Market Net	Product&Market Entry	Product&Market Exit	Product&Market Net
		a)	b)	c)	d)	e)	f)	g)	h)	i)	l)	m)	n)	n)	n)	n)
2001-2007	<10	-0.2	-0.3	0.0	0.6	-0.5	0.1	0.6	-0.6	0.0	0.4	-0.5	-0.1	0.3	-0.2	0.0
	10-20	0.3	0.1	0.2	0.1	-0.1	0.0	0.4	-0.4	0.0	0.4	-0.3	0.1	0.2	-0.1	0.0
	20-50	0.5	0.2	0.3	0.2	-0.2	0.0	0.5	-0.5	0.0	0.7	-0.5	0.2	0.2	-0.2	0.1
	50-250	1.7	1.3	0.4	0.6	-0.6	0.0	0.8	-0.7	0.1	0.9	-0.7	0.3	0.2	-0.2	0.1
	>250	2.9	2.6	0.3	0.9	-0.9	0.0	0.8	-0.6	0.2	0.8	-0.8	0.1	0.2	-0.1	0.0
	Total	**5.1**	**4.0**	**1.2**	**2.5**	**-2.4**	**0.1**	**3.0**	**-2.7**	**0.3**	**3.3**	**-2.8**	**0.5**	**1.1**	**-0.9**	**0.2**
2008-2010	<10	0.4	0.4	0.0	0.5	-0.5	0.0	0.4	-0.5	0.0	0.4	-0.4	0.1	0.2	-0.2	0.0
	10-20	0.0	-0.1	0.1	0.2	-0.2	0.0	0.3	-0.3	0.0	0.4	-0.4	0.1	0.2	-0.2	0.0
	20-50	-0.2	-0.3	0.1	0.2	-0.3	0.0	0.4	-0.4	0.0	0.7	-0.5	0.1	0.2	-0.2	0.0
	50-250	-0.6	-0.4	-0.3	0.3	-0.8	-0.5	0.6	-0.6	0.0	1.0	-0.8	0.2	0.2	-0.2	0.0
	>250	-0.9	-0.7	-0.2	0.6	-1.0	-0.3	0.6	-0.5	0.1	0.9	-1.0	0.0	0.3	-0.1	0.1
	Total	**-1.4**	**-1.1**	**-0.2**	**1.8**	**-2.7**	**-0.9**	**2.3**	**-2.2**	**0.0**	**3.5**	**-3.0**	**0.5**	**1.1**	**-0.9**	**0.2**
2011-2015	<10	-0.1	-0.2	0.1	0.4	-0.4	0.0	0.4	-0.4	0.0	0.4	-0.3	0.1	0.2	-0.2	0.0
	10-20	0.2	0.1	0.1	0.1	-0.1	0.0	0.3	-0.3	0.0	0.4	-0.3	0.1	0.2	-0.1	0.0
	20-50	0.4	0.3	0.2	0.2	-0.2	0.0	0.3	-0.3	0.0	0.6	-0.5	0.2	0.2	-0.1	0.0
	50-250	1.5	1.2	0.3	0.3	-0.4	-0.1	0.5	-0.5	0.0	0.9	-0.7	0.3	0.2	-0.1	0.1
	>250	2.1	2.0	0.1	0.3	-0.4	-0.1	0.5	-0.5	0.0	0.9	-0.8	0.1	0.2	-0.2	0.1
	Total	**4.3**	**3.5**	**0.8**	**1.2**	**-1.5**	**-0.2**	**2.1**	**-1.9**	**0.1**	**3.4**	**-2.6**	**0.7**	**1.0**	**-0.8**	**0.2**
2001-2015	<10	-0.1	-0.1	0.0	0.5	-0.5	0.0	0.5	-0.5	0.0	0.4	-0.4	0.0	0.2	-0.2	0.0
	10-20	0.2	0.1	0.1	0.2	-0.1	0.0	0.3	-0.3	0.0	0.4	-0.3	0.1	0.2	-0.1	0.0
	20-50	0.3	0.1	0.2	0.2	-0.2	0.0	0.4	-0.4	0.0	0.7	-0.5	0.2	0.2	-0.2	0.0
	50-250	1.2	0.9	0.3	0.4	-0.6	-0.1	0.6	-0.6	0.1	1.0	-0.7	0.3	0.2	-0.2	0.1
	>250	1.9	1.8	0.1	0.6	-0.8	-0.1	0.6	-0.5	0.1	0.9	-0.8	0.1	0.2	-0.1	0.1
	Total	**3.5**	**2.7**	**0.7**	**1.9**	**-2.2**	**-0.2**	**2.5**	**-2.3**	**0.2**	**3.3**	**-2.8**	**0.6**	**1.1**	**-0.8**	**0.2**

Table 6

Decomposition of export growth into different margins, by productivity quintile

period average	Turnover per employee	Total Export	Intensive Margin	Extensive margin	Firm Entry	Firm Exit	Firm Net	Product Entry	Product Exit	Product Net	Market Entry	Market Exit	Market Net	Product&Market Entry	Product&Market Exit	Product&Market Net
2001-2007	bottom quintile	0.4	0.3	0.1	0.3	-0.3	0.0	0.2	-0.2	0.0	0.3	-0.2	0.1	0.1	-0.1	0.0
	2 quintile	0.2	0.1	0.1	0.1	-0.2	0.0	0.2	-0.2	0.0	0.2	-0.2	0.0	0.1	-0.1	0.0
	3 quintile	0.0	0.0	0.0	0.1	-0.1	0.0	0.2	-0.2	0.0	0.2	-0.2	0.0	0.1	-0.1	0.0
	4 quintile	0.0	-0.1	0.1	0.1	-0.1	0.0	0.3	-0.3	0.0	0.3	-0.3	0.1	0.1	-0.1	0.0
	top quintile	4.5	3.6	0.9	1.8	-1.7	0.1	2.1	-1.8	0.3	2.3	-1.9	0.3	0.6	-0.4	0.2
	Total	**5.1**	**3.9**	**1.2**	**2.5**	**-2.4**	**0.1**	**3.0**	**-2.7**	**0.3**	**3.3**	**-2.8**	**0.5**	**1.1**	**-0.9**	**0.2**
2008-2010	bottom quintile	-0.1	0.0	-0.1	0.3	-0.4	-0.1	0.2	-0.2	0.0	0.3	-0.3	0.1	0.2	-0.1	0.0
	2 quintile	0.0	0.0	0.0	0.1	-0.2	0.0	0.2	-0.2	0.0	0.2	-0.2	0.0	0.1	-0.1	0.0
	3 quintile	0.0	0.0	0.0	0.1	-0.1	0.0	0.2	-0.2	0.0	0.2	-0.2	0.0	0.1	-0.1	0.0
	4 quintile	0.0	-0.1	0.0	0.1	-0.1	0.0	0.2	-0.2	0.0	0.3	-0.2	0.0	0.1	-0.1	0.0
	top quintile	-1.2	-1.0	-0.2	1.2	-1.9	-0.8	1.6	-1.5	0.1	2.5	-2.2	0.3	0.6	-0.4	0.2
	Total	**-1.3**	**-1.1**	**-0.2**	**1.8**	**-2.7**	**-0.9**	**2.3**	**-2.2**	**0.0**	**3.5**	**-3.0**	**0.5**	**1.1**	**-0.9**	**0.3**
2011-2015	bottom quintile	0.1	0.1	0.0	0.2	-0.3	0.0	0.2	-0.2	0.0	0.3	-0.3	0.0	0.1	-0.1	0.0
	2 quintile	0.1	0.0	0.1	0.1	-0.1	0.0	0.1	-0.1	0.0	0.2	-0.2	0.1	0.1	-0.1	0.0
	3 quintile	0.0	0.0	0.0	0.1	-0.1	0.0	0.1	-0.1	0.0	0.2	-0.1	0.0	0.1	-0.1	0.0
	4 quintile	0.1	0.0	0.1	0.1	-0.1	0.0	0.2	-0.2	0.0	0.3	-0.2	0.0	0.1	-0.1	0.0
	top quintile	3.9	3.3	0.6	0.8	-1.0	-0.2	1.3	-1.3	0.1	2.3	-1.8	0.5	0.5	-0.4	0.1
	Total	**4.1**	**3.4**	**0.7**	**1.3**	**-1.5**	**-0.2**	**2.0**	**-1.9**	**0.1**	**3.2**	**-2.6**	**0.7**	**1.0**	**-0.7**	**0.2**
2001-2015	bottom quintile	0.2	0.2	0.0	0.3	-0.3	-0.02	0.2	-0.2	0.00	0.3	-0.3	0.04	0.1	-0.1	0.02
	2 quintile	0.1	0.1	0.1	0.1	-0.1	-0.02	0.2	-0.2	0.01	0.2	-0.2	0.04	0.1	-0.1	0.02
	3 quintile	0.0	0.0	0.0	0.1	-0.1	-0.01	0.2	-0.2	-0.01	0.2	-0.2	0.03	0.1	-0.1	0.01
	4 quintile	0.0	-0.1	0.1	0.1	-0.1	0.00	0.2	-0.2	-0.01	0.3	-0.2	0.05	0.1	-0.1	0.02
	top quintile	3.1	2.6	0.6	1.3	-1.5	-0.18	1.7	-1.5	0.19	2.3	-1.9	0.40	0.6	-0.4	0.15
	Total	**3.5**	**2.7**	**0.7**	**1.9**	**-2.2**	**-0.2**	**2.5**	**-2.3**	**0.2**	**3.3**	**-2.8**	**0.6**	**1.1**	**-0.8**	**0.2**

Table 7

Market entry and market characteristics

	(1)	(2)
Ln_POP_lag	0.077***	
	(0.013)	
Ln_GDPxcap_lag	0.091***	0.056**
	(0.021)	(0.024)
Ln_distance	-0.006***	
	(0.002)	
Ln_ER_lag	0.002	0.004**
	(0.003)	(0.002)
Constant	-0.034	-0.035
	(0.027)	(0.024)
Observations	55,002,979	55,002,979
R-squared	0.004	0.008
Year FE	YES	YES
Destination FE	NO	YES
Destination* Year FE	NO	NO

Linear probability model. Robust standard errors in parentheses, adjusted for clustering by destination. The dependent variable is a dummy equal to 1 if a firm *i* enters a new market *m* in year *t*. *Ln_POP_lag* is the logarithm of the population size of country *m* in year (*t-1*). *Ln_GDPxcap_lag* is the logarithm of GDP per capita of country *m* in year (*t-1*). *LN_distance* is the logarithm of the physical distance between country *m* and Italy. *Ln_ER_lag* is the logarithm of the bilateral nominal exchange rate between the currency of country *m* and the euro.
*** p<0.01, ** p<0.05, * p<0.1

Table 8

Market entry and firm characteristics

	(1)	(2)	(3)	(4)
	Number of employees		Dummy firm size	
Dsize_10-49			0.021***	0.008***
			(0.001)	(0.001)
Dsize_50-249			0.049***	0.019***
			(0.003)	(0.002)
Dsize_250+			0.068***	0.029***
			(0.003)	(0.003)
Ln_size_lag	0.006***	0.005***	0.006***	0.003***
	(0.001)	(0.000)	(0.001)	(0.000)
Ln_prod_lag	0.012***	0.009***		
	(0.001)	(0.001)		
Constant	-0.071***	-0.049***	-0.052***	-0.015***
	(0.009)	(0.006)	(0.008)	(0.004)
Observations	74,956,866	74,956,866	74,956,866	74,956,866
R-squared	0.021	0.065	0.021	0.065
Destination* Year FE	YES	YES	YES	YES
Firm FE	NO	YES	NO	YES

Linear probability model. Robust standard errors in parentheses, adjusted for clustering by destination and firm. The dependent variable is a dummy equal to 1 if a firm *i* enters a new market *m* in year *t*. *Ln_size_lag* is the logarithm of the number of employees in year (t-1). *Ln_prod_lag* is the logarithm of the revenue per employee in year (t-1). *Dsize_x-y* is a dummy variable equal to 1 when the number of employees is between x and y: the excluded category is that of firms with less than 10 employees.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 9

Market entry and general export experience

	(1)	(2)	(3)	(4)
Ln_size_lag	0.006***	0.005***	0.009***	0.004***
	(0.000)	(0.000)	(0.001)	(0.000)
Ln_prod_lag	0.000	0.002***	0.003***	0.001**
	(0.000)	(0.001)	(0.001)	(0.000)
Ln_exp_lag	0.007***			0.000*
	(0.000)			(0.000)
Dnumdest_2-5		0.009***		0.009***
		(0.001)		(0.001)
Dnumdest_6-50		0.050***		0.045***
		(0.003)		(0.003)
Dnumdest_51+		0.178***		0.168***
		(0.015)		(0.015)
Dnumprod_2-5			0.006***	-0.003***
			(0.000)	(0.000)
Dnumprod_6-50			0.031***	0.005***
			(0.002)	(0.001)
Dnumprod_51+			0.055***	0.018***
			(0.004)	(0.003)
Constant	-0.069***	-0.021***	-0.041***	-0.017*
	(0.009)	(0.008)	(0.008)	(0.009)
Observations	74,956,866	74,956,866	74,956,866	74,956,866
R-squared	0.027	0.038	0.027	0.039
Destination*Year FE	YES	YES	YES	YES

Linear probability model. Robust standard errors in parentheses, adjusted for clustering by destination and firm. The dependent variable is a dummy equal to 1 if a firm i enters a new market m in year t. *Ln_size_lag* is the logarithm of the number of employees in year (t-1). *Ln_prod_lag* is the logarithm of the revenue per employee in year (t-1). *LN_exp_lag* is the logarithm of the value of exports in year (t-1). *Dnumdest_x-y* is a dummy variable equal to 1 when a firm exports to a number of destination markets between x and y; the excluded category is that of firms exporting to only 1 destination market. *Dnumprod_x-y* is a dummy variable equal to 1 when a firm exports a number of products between x and y; the excluded category is that of firms exporting only 1 product.
*** p<0.01, ** p<0.05, * p<0.1

Table 10

Market entry and market-specific export experience

	(1)	(2)	(3)	(4)	(5)	(6)
Ln_size_lag	0.004***	0.004***	0.003***	0.003***	0.006***	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	
Ln_prod_lag	0.001***	0.001**	0.001	0.001**	0.003***	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
Ln_exp_lag	-0.000	0.000	0.000	-0.000		
	(0.000)	(0.000)	(0.000)	(0.000)		
Dnumdest_2-5	0.007***	0.007***	0.005***	0.005***		
	(0.001)	(0.001)	(0.001)	(0.001)		
Dnumdest_6-50	0.036***	0.040***	0.034***	0.030***		
	(0.003)	(0.003)	(0.003)	(0.003)		
Dnumdest_51+	0.146***	0.160***	0.149***	0.137***		
	(0.013)	(0.014)	(0.014)	(0.013)		
Dnumprod_2-5	-0.002***	-0.003***	-0.003***	-0.003***		
	(0.000)	(0.000)	(0.000)	(0.000)		
Dnumprod_6-50	0.004***	0.005***	0.003***	0.003***		
	(0.001)	(0.001)	(0.001)	(0.001)		
Dnumprod_51+	0.016***	0.017***	0.015***	0.014***		
	(0.002)	(0.002)	(0.002)	(0.002)		
Dcontiguous	0.049***			0.039***	0.029***	0.029***
	(0.004)			(0.004)	(0.004)	(0.005)
Dcommonlang		0.016***		0.007**	-0.002	-0.001
		(0.003)		(0.003)	(0.003)	(0.003)
Ln_Distclosestmkt			-0.016***	-0.008***	-0.008***	-0.011***
			(0.001)	(0.001)	(0.001)	(0.002)
Constant	-0.014*	-0.020**	0.130***	0.058***	0.040***	0.114***
	(0.008)	(0.008)	(0.016)	(0.016)	(0.014)	(0.013)
Observations	74,956,866	74,956,866	74,956,866	74,956,866	74,956,866	74,956,866
R-squared	0.046	0.040	0.043	0.047	0.070	0.106
Destination *Year FE	YES	YES	YES	YES	YES	YES
Firm FE	NO	NO	NO	NO	YES	NO
Firm*Year FE	NO	NO	NO	NO	NO	YES

Linear probability model. Robust standard errors in parentheses, adjusted for clustering by destination and firm. The dependent variable is a dummy equal to 1 if a firm i enters a new market m in year t. Ln_size_lag is the logarithm of the number of employees in year $(t-1)$. Ln_prod_lag is the logarithm of the revenue per employee in year (t-1). LN_exp_lag is the logarithm of the value of exports in year $(t-1)$. Dnumdest_x-y is a dummy variable equal to 1 when a firm exports to a number of destination markets between x and y; the excluded category is that of firms exporting to only 1 destination market. Dnumprod_x-y is a dummy variable equal to 1 when a firm exports a number of products between x and y; the excluded category is that of firms exporting only 1 product. Dcontiguous is a dummy variable equal to 1 when a firm exports to a country which is contiguous to country m. Dcommonlang is a dummy variable equal to 1 when a firm exports to a country where the language spoken is the same as that spoken in country m. Ln_Distclosestmkt is the logarithm of the physical distance between the closest country to which firm i already exports and country m.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$