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ARE FIRMS EXPORTING TO CHINA AND INDIA DIFFERENT FROM OTHER EXPORTERS?

by Giorgio Barba Navaretti[*], Matteo Bugamelli[**], Riccardo Cristadoro[**] and Daniela Maggioni[***]

Abstract

This paper asks whether and why advanced countries differ in their ability to export to China and India. We exploit a newly collected, comparable cross-country survey of 15,000 European manufacturing firms (EFIGE). The dataset contains information on firms' international activities and characteristics such as size and productivity, governance and management structure, workforce, innovation and research activity. We identify the firm characteristics that are correlated with exporting activity in general as well as with exporting to China and India conditional on being an exporter. In line with existing literature, we prove that larger, more productive and innovative firms are more likely to become exporters and to export more. Our results also provide new evidence on the role of governance: while there is not a strong negative effect of family ownership, a higher percentage of family management reduces a firm's export propensity and export volumes. Regarding China and India, we find that firms exporting there are on average larger, more productive and more innovative than firms exporting elsewhere.

JEL Classification:: F1, L2, M2.
Keywords: exports, productivity, firm size, management.

Contents

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1. Introduction *

In advanced countries, the economic and political debate on the impact of globalisation is dominated by the negative effects, mostly in terms of employment, produced by the rapid rise of emerging economies, such as China and India, as fierce competitors on world markets for goods and services. The other side of the coin has so far received less attention: China and India are also exceptionally large and very dynamic destination markets that benefit advanced countries' exports and growth.

In the last two decades China's weight in the globalised world has increased dramatically and the country has become one of the most important players in international trade. This process of integration has accelerated with China's entry into the WTO in 2001. WTO membership has entailed a lowering of import tariffs and authorization for foreign firms to sell directly in the Chinese market. These policy measures have further opened the door to foreign firms. China is not only a supplier of low-cost inputs for developed countries, it has also become an expanding market, offering profitable business opportunities.

Exports to China have been growing for all developed countries. Because of proximity, the rise has been especially fast in Japan and other industrialised Asian economies. The trend is on the rise in all countries, although some, notably Germany, have been especially successful in strengthening their position in Asian markets. Others are lagging behind. China's share in total Italian exports is lower than the average for the EU15. In this paper we study the causes of these differences using the new EFIGE dataset, which includes information on firms' international activities for seven European economies (Austria, France, Germany, Great Britain, Hungary, Italy and Spain; see Barba Navaretti et al., 2011).

It is, of course, a well-known fact that the distributions of firms' characteristics are extremely heterogeneous within countries and industries. Moreover, a large body of theoretical and empirical literature (Helpman et al., 2004; Eaton et al., 2004) has highlighted how these characteristics are likely to affect export performance.

The key discriminatory features are size and productivity, given the high fixed costs of conducting international activities. The first step in our analysis, therefore, is to understand how far the distribution of these features of European firms affects i) the extensive and intensive margins of exports and ii) the intensive and extensive margins of exports to China and India.[1] Exporting to distant emerging markets involves higher costs and risks than supplying nearby European customers. We

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[1] The EFIGE dataset does not provide information on exports to the two countries separately.

therefore expect that only the best-performing firms among the exporters manage to access faraway destinations.

We find, in fact, that basic firm characteristics such as size and productivity carry the brunt of the explanatory power, more than country and industry features. In a sense, we are giving support to a kind of monotonicity argument: small and low-productivity firms do not export, firms with average size and productivity sell their products to foreign and, presumably, close markets, while firms that are even larger and more productive can export to distant and difficult markets (see Melitz, 2003).

Our second step is to try to delve into the black box of firms' characteristics. Productivity and size are, of course, second order outcomes of strategic choices such as governance, technology, composition of factors of production, etc. Moreover, for given productivity and size these other features may provide independent explanatory power for firms' success in foreign markets. Governance is likely to play a very relevant role. A central factor is, of course, family ownership. Its influence on overall performance and strategic choices, such as entering export markets, has been extensively analysed in the literature. Family ownership is generally perceived as a hindering factor because of risk aversion in decision making (Barba Navaretti et al., 2008), dynastic management (Caselli and Gennaioli, 2003; Bennedsen et al., 2007), dilution of capital and control (Ellul et al., 2010), reluctance to decentralise decision making and so forth. Given the pervasiveness of family control in European firms (86 per cent[2]), we regard it as a central aspect of our investigation in order to dissect its influence on firms' exporting performance. Of course, the impact of ownership also depends on governance and management structure: managers can still be independent, can be non-family-member professionals, the decision process can be decentralised even with family owners, managers with expertise in international business can be hired. We therefore try to establish whether and to what extent these features influence export decisions.

We find that family ownership does indeed lower firms' export propensity, but that the ownership effect is strictly related to how far the family relinquishes decisional power to external managers. In fact, it is the presence of family members in executive management that drives the negative relationship between family ownership and export performance. Once we control for this factor, family ownership per se is no longer significant. Export propensity is also lower if executives have no previous foreign experience and when strategic decision making is not decentralised. These features are also linked in a similar way to the further step of exporting to faraway emerging markets.

[2] According to the "wide" definition of family ownership considered in this paper, which includes firms in which the main shareholder has more than 30% of the capital. Using the narrower definition (firms that declared "family ownership"), the share in our sample falls to 74%.

The remainder of the paper is organised as follows. The next section presents the data and a set of key stylised facts. Section 3 reports the basic estimations of the extensive and intensive margins of European exports, both in general and towards China and India. In this basic estimation we only include standard firm-level characteristics such as size and productivity. Section 4 looks at the impact of type of ownership and governance. Section 5 concludes.

2. Data and descriptive statistics

Figure A1 shows that exports to China have grown for all developed countries. Japan and other industrialised Asian countries have profited the most from the expansion of the Chinese market owing to their proximity. Figure A2 focuses on European countries included in the dataset: Austria, France, Germany, Hungary, Italy and the UK. The trends are fairly similar, but while in 1990 the export share to China was comparable among European countries, in 2008 the share for EU countries (in particular France and Germany) became higher on average than that of Italy.

What are the determinants of firms' export success and are there any heterogeneous effects explaining exports to faraway countries compared with exports to neighbouring countries? We try to answer these questions making use of the EFIGE dataset, a firm-level database collected within the project "*EFIGE - European Firms in a Global Economy: Internal Policies for External Competitiveness*". Data relate to seven European Union countries: Austria, Germany, France, Hungary, Italy, Spain and the UK. The sample distribution by country is shown in Table A1. The survey questionnaire contains both qualitative and quantitative information covering different areas: the ownership and management structure of the firm, employment composition, investment and innovation activity, internationalization strategies and financial structure. Survey data have been matched with balance-sheet information drawn from the Amadeus database, managed by Bureau van Dyck, to retrieve an indicator of labour productivity.

The survey was carried out once in 2010. Only balance-sheet data have a panel structure. The results reported in our analysis are therefore essentially descriptive.

For the purpose of the present work we exploit mainly information concerning firms' international activity, ownership and management structure. Our focus is both on export activity in general, regardless of destination country, and on exports to China and India.[3] The survey questionnaire allows us to split destination markets into eight groups: European Union (EU-15), other

[3] The questionnaire does not distinguish exporters to China from exporters to India. In the text we sometimes refer to these two countries as *emerging countries*.

European Union countries, other European Countries (outside EU), China and India, other Asian countries, USA and Canada, Central and South America, other countries.[4]

Figure A3 provides a bird's eye view of the distribution of European exporters by destination country. The majority of them sell to nearby markets (EU15), while only a small number of firms successfully reach faraway ones. This could be due both to their cultural distance (consumers' tastes and preferences in China and India may be different from the ones in western countries and this may entail adapting products for exports) and to the fact European firms still have little experience in these countries and it takes time to reap the new business opportunities offered by them.

The share of Italian firms exporting to China and India (17.7%) in the population of exporters is much lower than in Germany or France (27.3% and 22.2%, respectively); this is in contrast with findings on the share of exporters to extra-European markets excluding China and India (see Table A3). There the share of Italian firms is indeed higher than for other European countries, as if China and India had high entry costs compared with other distant markets, such as the USA and Canada, and these costs were especially binding for Italian exporters. On the other hand, German exporters are more likely to penetrate difficult markets that are geographically and culturally distant. These differences across countries could be explained by their different industrial structure in terms of firm size, sectoral distribution, innovative capacity and productivity. Thus, the advantage of Germany in emerging countries could be related to its sectoral specialisation or, more likely, to the considerable role (weight) that medium and large firms have in German manufacturing (see Barba Navaretti et al., 2010).

Table A4 shows that exporters are larger on average (measuring size in terms of employment) and more productive (measuring productivity by output per worker) than non-exporters, confirming a well-known result. However, significant gaps also exist between exporters to emerging countries and exporters to other countries. Considering only the firms in our sample that do export, we observe that those operating in China and India are on average (and significantly) bigger than other exporters. On the contrary, we do not detect any significant difference when comparing simple productivity measures. Quite interestingly, differences are not confined to the firms' structural or economic characteristics; ownership and management practices make also a significant difference. Reaching faraway markets is more likely when a firm belongs to a group, it is not a "family-enterprise" with a CEO who is a member of the owning family, and when it promotes best management practices by rewarding managers according to performance and by adopting a management structure with decentralised responsibility. This is true not only when we compare exporters to non-exporters, but also, within the group of "international" firms, when we single out those that have entered faraway markets.

[4] The geographical destination of exports is recorded only for 2008. Thus, when we analyse the destination-specific experience of exporters we focus only on that year.

3. The extensive and intensive margin of trade: base regressions

In the previous section we have highlighted the main characteristics of exporting firms. Now we move to a more general and systematic approach and perform a regression analysis of the extensive and intensive margins of trade on country, sector and firm characteristics. In this way, we can assess the relative importance of the different factors and the magnitude of their impact on exports.

The main objective of the paper is to pinpoint (and measure the impact of) the distinctive features of firms that succeed in exporting to China and India. Before doing so, however, it is useful to set the stage by looking at the characteristics of exporters irrespective of destination market.

The most recent contributions to the international trade literature with heterogeneous firms provide wide support, both theoretical (Bernard, Jensen, Eaton and Kortum, 2003; Melitz, 2003; Melitz and Ottaviano, 2008) and empirical (Bernard and Jensen, 1995, 1999, 2004a, 2004b, ISGEP, 2008),[5] for the idea that exporting firms are more productive, larger, more profitable and more innovative than average.[6] Moreover, when restricting the analysis to exporting firms, it turns out that there are further important heterogeneities; in particular, all the main European countries have a large mass of small exporters and very small number of large firms accounting for the majority of the country's exports ("superstars": see Mayer and Ottaviano, 2007; Barba Navaretti et al., 2011).

Why are exporting firms "better" than average? Here the empirical trade literature has focused on two hypotheses: first, that exporting firms are ex ante "above average" ("self-selection" hypothesis) and second, that their higher productivity is instead the result of their export activity itself ("learning-by-exporting" hypothesis).

According to the self-selection hypothesis, it is "harder" to export than to sell on domestic markets and so only the best firms are able to do it. The difficulty of exporting is ascribed to the presence of fixed costs specific to export activity, such as transportation, distribution and marketing costs or the costs of hiring qualified personnel to manage relations with international customers. The hypothesis of fixed export costs, which was first put forward by Baldwin (1988 and 1989), Baldwin and Krugman (1989), Dixit (1989) and Krugman (1989) and underlies theoretical models with heterogeneous firms à la Melitz, implicitly presupposes a barrier to entry in foreign markets that the less productive firms are unable to overcome. Starting with the work of Roberts and Tybout (1997),

[5] The project studied the relationship between exports and productivity by reducing methodological and statistical differences. Some forty researchers took part, conducting analyses of firm-level data from fourteen countries (Austria, Belgium, Chile, China, Colombia, Denmark, France, Germany, Ireland, Italy, Slovenia, Spain, Sweden and the United Kingdom). Davide Castellani of the University of Perugia and Francesco Serti and Chiara Tomasi of the Scuola Superiore Sant'Anna in Pisa participated for Italy.

[6] In the case of Italy, these results have been confirmed by various authors (Ferragina and Quintieri, 2000; Sterlacchini, 2001; Basile, 2001; Castellani, 2002; Bugamelli and Infante, 2003; Serti and Tomasi, 2008).

numerous empirical studies have corroborated this hypothesis;[7] for Italy, the presence of fixed export costs has been demonstrated by Castellani (2002) and by Bugamelli and Infante (2003).

Learning-by-exporting can derive from the fact that the greater competitive pressure to which exporting firms are exposed drives them to achieve efficiency gains, or alternatively from the possibility for exporters to learn better technologies from foreign competitors or to get ideas for the renewal and improvement of their product range from foreign customers (Clerides, Lach and Tybout, 1998; Bernard and Wagner, 1997).

Since the mid-1990s, in part thanks to the growing availability of firm-level data, a stream of works has tested these two hypotheses. Reviewing forty-five studies on thirty-three countries published between 1995 and 2006, Wagner (2007) concludes that exporting firms are definitely more productive than average owing to a self-selection effect, whereas entering foreign markets does not necessarily lead to an increase in efficiency at firm level. These results have been confirmed by an international comparative research project launched by the International Study Group on Exports and Productivity (see ISGEP, 2008).

In Table A5 we run a probit regression of an exporter dummy variable which is equal to 1 if a firm exported a positive amount in 2008 and 0 otherwise. This is the "extensive margin of exports". In a first specification (column 1) we include only country dummies. With respect to Germany (the excluded country), the propensity to export is higher in Austria, Italy, Hungary and the UK. France and Spain are in line with Germany. In column 2 we add sector dummies (2 digits of the Nace 2 rev.1 classification): apart from small changes in the coefficients of the country dummies, the sectoral dummies (not reported) point to significant differences across sectors. The share of firms engaged in export activity is lowest in the food industry, followed by traditional, low-tech activities. Chemical and mechanical firms are most likely to export.

The situation takes an interesting turn when we start adding firm characteristics (columns 3-7). Overall, we confirm the received view from the existing empirical literature: size, productivity, the skill level of the work force[8] and propensity to innovate are positively correlated with the export status. The inclusion of firm-level controls in general significantly reduces the relevance of country dummies.

In Table A6 we show the results for the intensive margin of exports, measured by the log of export turnover. In terms of firm characteristics, we find again a very large and positive impact of firm size and productivity; even after controlling for those two characteristics, the skill composition of the workforce has a significant, though small, positive effect on export turnover. The country dummies

[7] See Bernard and Wagner (1997) for Germany, Bernard and Jensen (2004b) for the United States, Campa (2004) for Spain, Poddar (2004) for India, and Girma, Greenaway and Kneller (2004) for the United Kingdom.

[8] In all the regressions we only report results for one measure of skills, the share of graduate employees. Results are not affected if we use the share of managers and white collars on total employment instead.

depict a slightly different story than in the case of the extensive margin. In column 1, where we control neither for sector nor for firm characteristics, we see that France, Italy, Spain and Hungary record a lower average level of exports than Germany. The positive gap between Germany on the one side and Italy on the other appears to be due to firm size (column 3), once we control for firm size, the coefficient of the country dummy becomes positive. The gap with France and Hungary is due to firm productivity (column 4). In the richest specification (column 7), Italy and Hungary have a positive and statistically significant coefficient of the country dummy, while Spain is still strongly negative.

To sum up, firm characteristics – size, productivity, innovative activity, skill of the workforce – are the primary determinants of export performance and dominate country effects. Firm characteristics almost always affect the probability of engaging in exporting and the export level in the same direction: larger and more productive firms are both more likely to export and tend to export a larger amount of their production.

We now move to exporting to China and India and run regressions conditional on exporting: applying this restriction to a sample that includes only exporters allows us to identify country, sector and firm characteristics that raise the probability that an already exporting firm also sells its products in China and India.

The results for the extensive margin are reported in Table A7. As shown in column 1, where no controls other than country dummies are included, all countries, except the UK, perform worse than Germany: the gap appears to be larger for Hungarian and Spanish firms and smaller for French ones. Unfavourable sectoral specialisation explains part of the gap, which narrows once we control for sectors (column 2). In general, firm characteristics are highly significant, with the exception of capital intensity, which does not affect the probability that an already exporting firm will sell its products in China and India as well, and of labour productivity, which is not significant in some regressions. These results are far from obvious: even among exporters that are already larger, more productive and more innovative than average, size, productivity, educational level of the labour force and innovation are important competitive factors in reaching distant and large markets like China and India..

In a sense, we are giving support to a kind of monotonic relation: small and low-productivity firms do not export, firms of average size and productivity sell their products to foreign and, most often, close markets, while to reach distant and difficult markets firms must be even larger and more productive.

The effects of size and skill on the probability of exporting to China and India are quantitatively comparable to their effects on being an exporter (see Table A5). Labour productivity, on the other

hand, has a feebler and sometimes statistically negligible effect on the likelihood of serving far away markets, once a firm is already selling its products abroad. This may suggest that exporting to China and India entails higher fixed costs that can be better faced by exploiting greater economies of scale and that it therefore requires additional skills and innovation activity, while the level of productivity per se is not relevant. Care must be exercised in drawing similar conclusions as the collinearity between workers' skills and productivity is arguably very high.

The regressions on the intensive margin for China and India (Table A8) confirm the monotonic relation suggested by the probit models. In parallel with the results of Table A6, size, productivity and the skill composition of the workforce record significantly positive coefficients. On the other hand, the innovation dummy is no longer significant. Two explanations can be offered, not necessarily as alternatives. The very nature of the "innovation regressor", which is a dummy assuming value 1 if the firm is engaged in some innovation activity, makes it ill-suited to measure the intensity of this activity, so that we might well find that it influences the probability of exporting to China and India, but not the amount exported. Furthermore, among the group of exporters, the number of innovative firms is very large, exceeding four fifths of the sample, and hence the actual power of the test of significance of the coefficient might indeed be quite low.[9] Turning to country dummies, the gap between Italian firms and German competitors is due to the unfavourable size structure, the gap with French firms to lower productivity.

4. Controlling for type of ownership and management practices

In this section we focus on the role of ownership and management practices: do they influence the ability to export, once all the other firm's characteristics have been taken into account? The issue is particularly important for our sample. As shown in Table A9, in all European countries the majority of firms are family owned.

Many papers have analysed theoretically and empirically how family ownership affects performance in general (Caselli and Gennaioli, 2003; Burkart, Panunzi and Shleifer, 2003; Perez-Gonzalez, 2006; Sraer and Thesmar, 2006; Favero et al., 2007; Bertrand and Schoar, 2006), even after controlling for size and productivity. Fewer have looked at the effects on export activities. Barba Navaretti, Faini and Tucci (2008), controlling for management and other firm characteristics, show that

[9] This might also explain why innovation significantly influences not only the probability of being an exporter but also the amount exported in the previous regressions, where the population is given by all firms, including non-exporters.

Italian family firms export a smaller share of their output to extra-European markets than non family firms. Their paper focuses on risk aversion: as a large share of the assets of the family are concentrated in the business, limited opportunities for risk diversification inhibit the undertaking of risky activities such as exporting to faraway markets.[10]

Naturally, there are many examples of family firms that are very successful internationalised firms. Essentially, these firms manage to overcome the constraints of restricted ownership by hiring competent independent managers, possibly with considerable international experience, by decentralising decision-making and by introducing advanced governance practices. Marin and Verdier (2003 and 2006) show how export performance is related to the degree of decentralisation of the firm's governance. Mion and Opromolla (2011) find that hiring managers with previous export experience increases the chances that the firm will export. Finally, Bloom and Van Reenen (2007) highlight how management practices vary across Europe and how these affect firm-level performance.

Consequently, in this section we combine ownership information with characteristics of management to assess their joint effect on exporting in general and specifically on exporting to China and India.

The first set of regressions compares exporters' characteristics with those of the whole population of firms. Looking first at the extensive margin (see Table A10), we progressively add variables concerning family ownership and management practices to the set of regressors used in Table A5. Being a "family firm", according to the wider concept of family ownership discussed in Appendix A ("family_wide" variable), has no effect on the probability of being an exporter. Ownership is relevant insofar as it affects the structure of management. In fact, the presence of family members in management ("fam_exec" variable) reduces the probability of a firm selling products in foreign markets, as shown in regressions 3 and 4 in Table A10. Note that once we control for the characteristics of management, the variable measuring whether the firm is organised as a group or not is no longer significant. This is a first insight into understanding that family ownership per se is not a critical factor for the international performance of firms, even when companies are organised as groups. What really matters is how far shareholders are able to delegate managerial power outside the family boundaries. Of course, there is a problem of endogeneity in this variable as well as in several others used to explain internationalisation patterns. Family firms may tap external managerial resources once they decide to enter foreign markets. Still, this result tells us that whatever the causal links, using external managers is an important condition for exporting successfully.

That delegating power is important also emerges from the variable measuring the degree of centralisation in the decision-making processes: firms with a highly centralised management structure,

[10] As mentioned before, other reasons why family ownership may hinder exports include limited delegation in decision-making, dynastic management, aversion to a dilution of assets and control.

where there is little handing over of decisions and entrustment, are less likely to compete in foreign markets. This variable enters in the regressions with a negative sign. In the descriptive statistics of Table A4 it is significantly different for exporters (management is more decentralised in these firms), but no longer so in the regressions of Table A10. This is probably because the variable is highly correlated to the presence of external managers in family firms, which by definition implies a concentration of decision making per se. Not surprisingly, the presence of managers with foreign experience is also positively related to the probability of exporting. As for non-family managers, we cannot establish the direction of the causal link here, but the positive sign of the correlation still has important analytical value.

Finally, the sign (and size) of coefficients of the other standard firm-specific variables (size, productivity and so forth) is not heavily affected by the introduction of the new regressors.

So far the evidence confirms that ownership and management characteristics play a significant role in explaining a firm's success as an exporter, even after we control for other important sources of firms' heterogeneity. What can one say about these variables when exporters to China and India are compared with other exporters?

As shown in Table A11, the same ownership- and management-related factors that are positively correlated with the propensity to export also explain why some exporters are better able than others to sell their products in China and India. Here, ownership has independent explanatory power per se. Family-owned exporting firms are less likely to get access to the Chinese and Indian markets (column 1), but this is no longer the case when the firm is organised as group (column 2). A management chosen within the family is associated with a smaller probability of exporting to distant Asian markets (column 3) unless it has previously acquired export experience (column 4).

Overall, the evidence shows that family firms are less likely to adventure into faraway markets such as China and India unless they move to more sophisticated ownership structures (groups), hire external managers or their managers have previous foreign experience in other companies.

Moving to the intensive margin of exports, Table A12 reports the results for all exports, regardless of the destination market. On the ownership and management variable, the overall picture is almost identical to the one found for the extensive margin (Table A10): family firms sells a smaller amount abroad, but this is no longer true if the firm is part of a *group* (column 2) and if it hires external managers. Once more, having a centralised governance does not hinder the amount of sales in foreign markets, possibly because of collinearity with the fam_exec variable. The quantity exported tends to be larger for firms whose managers have previous foreign experience.

Once we restrict attention to firms exporting to China and India and identify the factors that significantly increase the amount of a firm's exports in those markets, we no longer find a significant

role for governance and management variables, with the exception of the presence of managers with foreign experience, which is again positively correlated with the turnover level in China and India (Table A13). In a sense, these results are signalling that ownership and managerial factors play a role when firms enter foreign markets but not in defining the amounts actually sold.

5. Conclusion

The importance of firm-level characteristics for export performance is not new. A large strand of literature has documented the role of firm size, productivity, skill composition and innovation as significant determinants of international status. There exist additional costs of selling goods in foreign markets, such as for transportation and marketing, that represent an entry barrier. Only large, efficient and innovative firms are able to cope with these costs and survive in the more competitive international market (Roberts and Tybout, 1995; Melitz, 2003). Our contribution to this literature is to investigate the role of the ownership and management structure of firms.

We ask whether ownership matters for internationalisation, which management practices help firms to go international, and whether their impact can be heterogeneous according to the destination country the firm wants to reach, in particular in the case of emerging markets. A simple descriptive analysis reveals some facts that are in line with previous empirical studies. Family firms or family-managed firms have been shown to be less dynamic, less productive and more risk-adverse than other firms (Caselli and Gennaioli, 2003; Burkart, Panunzi and Shleifer, 2003; Perez-Gonzalez, 2006; Barba Navaretti, Faini and Tucci, 2008). Our evidence indicates that what actually matters is not family ownership per se, but the degree of involvement of the family in the management of the firm. Exporters are less likely to be family-dominated than non-exporters, and among exporters firms selling to China and India are still less likely to be controlled by the owner family. The de-centralisation of decision making and the foreign experience of managers also have a significant positive influence on the probability of entering and on the ability to expand activity in foreign markets. Exporters and, among them, exporters to China and India make use of decentralisation strategies and their executives are more likely to have worked abroad. It is worth noting that the differences between exporters to China and India and other exporters are at least as large as the ones between exporters and non-exporters. Thus, not only do exporters constitute a peculiar group of firms, but firms entering emergent countries represent a still more peculiar sub-group.

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Appendix A: Data description

We use the firm-level EU-Efige/Bruegel-UniCredit dataset. The data were collected as part of the project Efige - *European Firms in a Global Economy: internal policies for external competitiveness* - supported by the Directorate General Research of the European Commission through its FP7 programme. GFK Eurisko collected the data using CATI (Computer Assisted Telephone Interview) and CAWI (Computer Assisted Web Interview). This database collects information for seven European Countries – Austria, France, Germany, Hungary, Italy, Spain and the United Kingdom – and provides insights on the following firm characteristics and activities: structure of the firm; workforce; investment, technological innovation and R&D; internationalisation; finance; market and pricing.

The sampling design follows a stratification by sector and firm size; it covers firms with at least ten employees. All calculations and regressions on data are computed using weights to report the sample to the national firm universe.

We define as a "family firm" all firms replying "yes" to the question "Is your firm directly or indirectly controlled by an individual or family-owned entity?" ***and*** firms declaring that at least 30 per cent of their capital is held by an individual/group of individuals (wide definition).

In order to have a proxy for the exporters, we consider the replies to the following two questions: "did the firm sell abroad some or all of its own products / services in 2008?" and "before 2008, did the firm export any of its products?". A firm is termed "exporter" if it replies "yes, directly from the home country" to the first question and "regularly/always" or "sometimes" to the second. We felt that using only the first question to define exporters might exclude firms that only stopped selling abroad temporarily, given that 2008 saw an extraordinary contraction in international trade.

When we consider exporters to China and India, we have to rely solely on export activity in 2008 as the break-up by geographical destination of international activity is available only for that year.[11]

The survey data are matched with balance-sheet data from *Amadeus* (Bureau van Dyck) to construct a measure of labour productivity.

[11] For more information about the sampling construction, the collection of data, the sample characteristics and the weighting procedure see Barba et al. (2010).

Appendix B: Tables and graphs

Table A1: Sample distribution by country

Country	Number of firms
AUT	**482**
FRA	**2,973**
GER	**2,973**
HUN	**488**
ITA	**3,021**
SPA	**2,832**
UK	**2,142**
Total	**14,911**

Source: Authors' calculations based on the EU-EFIGE/Bruegel-UniCredit dataset.

Table A2: Definitions of variables

GROUP	VARIABLE	DEFINITION
Export activity	Exp (Wide definition)	Dummy assuming value 1 if the firm exported in 2008 or exported in previous years.
	Exp (Narrow definition)	Dummy assuming value 1 if the firm exported in 2008.
	exp_chiind	Dummy assuming value 1 if the firm exported to China and/or India in 2008.
Ownership	family_wide	Dummy assuming value 1 if the firm is controlled by an individual or family-owned entity or if at least 30% of its capital is held by an individual/group of individuals.
	group	Dummy assuming value 1 if the firm belongs to a group.
Management	fam_exec	Share of executives related to the family/individual who owns the firm (in the total number of executives).
Management practices	forexp_exec	Dummy assuming value 1 if executives of the firm have worked abroad for at least one year.
	centralised	Dummy assuming value 1 if decision making is mainly a centralised process.
	reward	Dummy assuming value 1 if executives are rewarded for their performance.
Control variables	lsize	log(employment)
	skill	Share of skilled workers (managers+white collars).
	grad_emp	Share of graduate employees
	inno	Dummy assuming value 1 if the firm innovates (process/product/both),
	llp	log(labour productivity)
	lkl	log(capital intensity)

Unless indicated otherwise, variables refer to the year 2008.

Table A3: Geographical distribution of exporters

(*percentages*)

country	Over the Whole Population				Over Exporters' Popul	
	Share of exporters. Wide definition	Share of exporters. Narrow definition	Share of Exporters to China and India	Share of Exporters to markets Outside Europe excl. China/India	Share of Exporters to China and India	Share of Exporters to markets Outside Europe excl. China/India
AUT	73.2	54.8	9.8	10.7	17.8	19.5
FRA	58.5	45.4	10.1	18.0	22.2	39.7
GER	60.0	41.2	11.2	11.4	27.3	27.7
HUN	67.3	49.0	0.8	7.0	1.6	14.4
ITA	72.2	63.5	11.2	25.9	17.7	40.9
SPA	61.1	47.9	5.2	21.1	10.8	44.1
UK	64.0	55.6	14.4	23.7	25.8	42.7
Total	64.4	51.4	10.2	19.2	19.9	37.4

Source: Authors' calculations based on the EU-EFIGE/Bruegel-UniCredit dataset.

The share of exporters in the whole population is defined according to both the narrow and the wide definition of exporter (see Table A2). The share of exporters according to the narrow definition and the destination-specific shares of exporters are defined for export activity in 2008. The share of exporters according to the wide definition captures the firm's export activity in 2008 and in previous years. The share of exporters to countries outside Europe does not include firms exporting to China and India.

Table A4: Exporters characteristics: averages by destination markets

Variable	Non Exporters	Exporters	diff	Exporters to all countries excluding China/India	Exporters to China/India	diff
labour productivity	116.88	152.32	a	152.27	163.41	ns
size	39	83	a	73	123	a
family	0.75	0.73	a	0.73	0.67	a
family_wide	0.89	0.84	a	0.84	0.78	a
fam_exec	54.17	45.92	a	47.98	36.88	a
centralised	0.79	0.71	a	0.72	0.65	a
reward	0.28	0.39	a	0.36	0.50	a
forexp_exec	0.10	0.25	a	0.23	0.35	a
group	0.12	0.21	a	0.20	0.33	a

Source: Authors' calculations based on the EU-EFIGE/Bruegel-UniCredit dataset.

The column diff reports the significance level of a t-test on the equality of means between the groups Exporters/Non-exporters and the groups Exporters to China and India/ Exporters to other countries. *a,b,c* significant at the 1%,5% and 10%, *ns* non-significant.

Figure A1:

China's weight in the total exports of each country/group

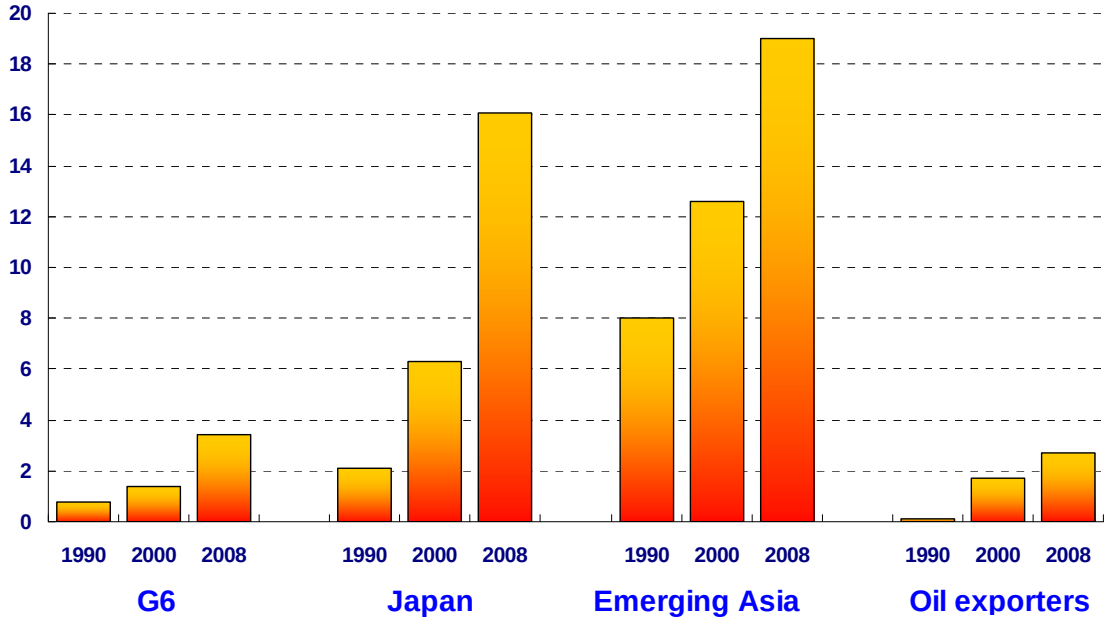


Figure A2:

China's weight in the total exports of each country/group

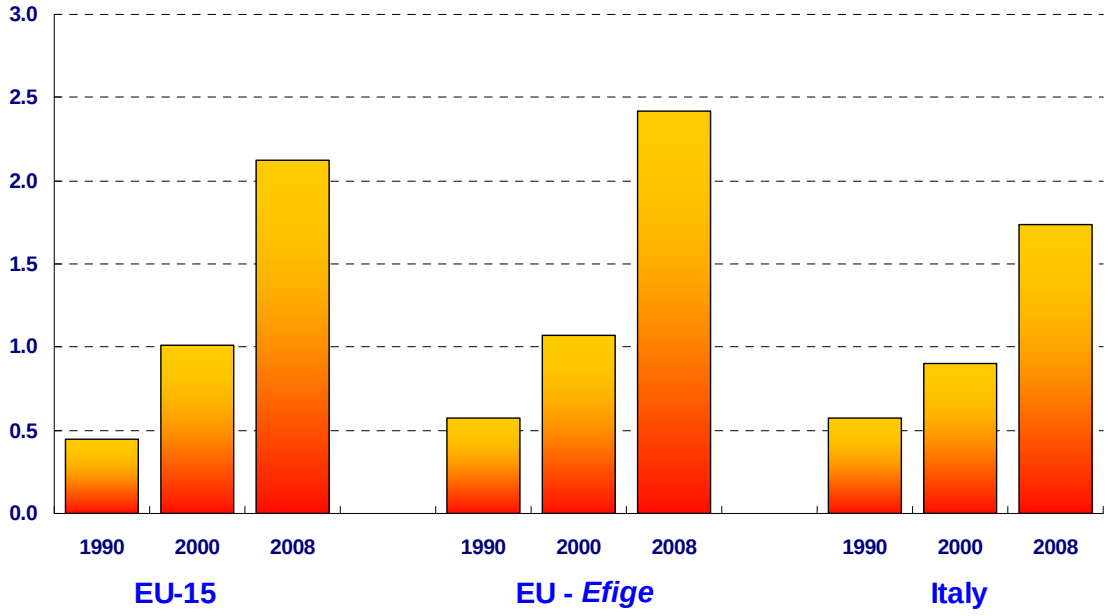
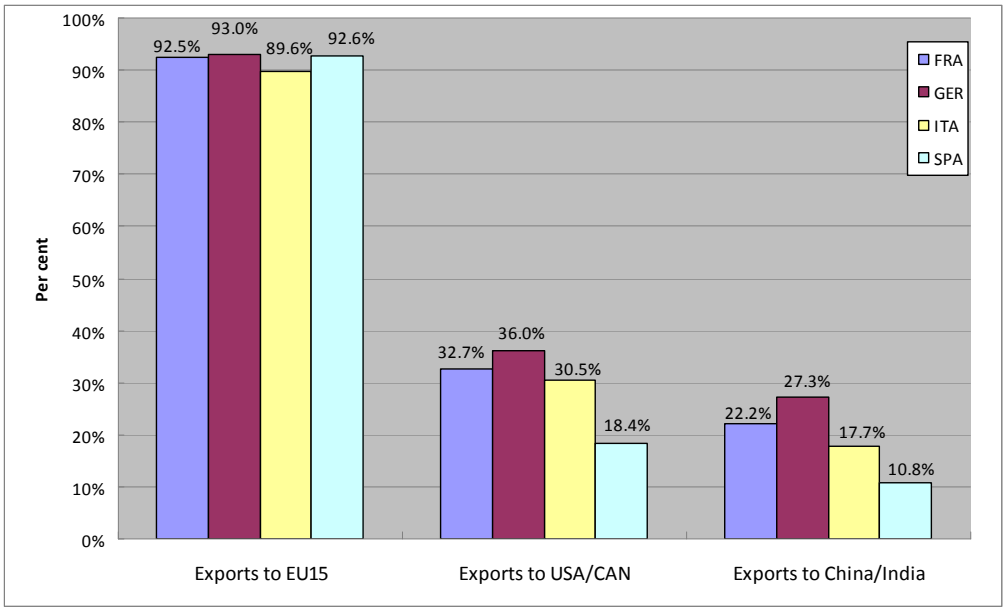


Figure A3: Percentage of exporting firms by destination market



Source: Authors' calculations based on the EU-EFIGE/Bruegel-UniCredit dataset. The Table shows the geographical distribution of exporters.

Table A5: Export extensive margin: probit regression on all firms

VARIABLES	(1) a	(2) b	(3) c	(4) d	(5) e	(6) f	(7) g
lsize			0.335***	0.327***	0.333***	0.301***	0.284***
			[0.015]	[0.021]	[0.021]	[0.021]	[0.022]
llp2				0.241***	0.217***	0.218***	0.207***
				[0.025]	[0.025]	[0.025]	[0.027]
grad_emp					0.010***	0.008***	0.009***
					[0.002]	[0.002]	[0.002]
inno						0.471***	0.439***
						[0.037]	[0.038]
lkl							0.052***
							[0.015]
AUT	0.365***	0.460***	0.472***	0.501***	0.549***	0.480***	0.438**
	[0.082]	[0.093]	[0.096]	[0.173]	[0.172]	[0.164]	[0.197]
FRA	-0.037	-0.019	0.017	-0.064	-0.056	-0.036	-0.079
	[0.039]	[0.039]	[0.040]	[0.046]	[0.046]	[0.046]	[0.050]
HUN	0.195***	0.239***	0.255***	0.529***	0.436***	0.460***	0.363***
	[0.068]	[0.070]	[0.071]	[0.105]	[0.107]	[0.109]	[0.112]
ITA	0.335***	0.282***	0.369***	0.260***	0.293***	0.264***	0.170***
	[0.036]	[0.037]	[0.038]	[0.043]	[0.044]	[0.044]	[0.051]
SPA	0.028	0.056	0.132***	0.095**	0.077*	0.036	-0.052
	[0.036]	[0.037]	[0.038]	[0.046]	[0.046]	[0.047]	[0.052]
UK	0.105***	0.060	0.085**	0.284***	0.257***	0.219**	0.161
	[0.039]	[0.040]	[0.040]	[0.098]	[0.098]	[0.099]	[0.101]
Constant	0.253***	-0.167***	-1.337***	-2.358***	-2.340***	-2.526***	-2.434***
	[0.025]	[0.042]	[0.070]	[0.152]	[0.150]	[0.152]	[0.160]
Observations	14910	14723	14723	10246	10241	10241	9702
Pseudo-R2	0.011	0.065	0.096	0.118	0.124	0.145	0.140
Wald Chi2	146.9	958.9	1363	932.1	989.7	1146	1050
Log-likelihood	-9602	-8953	-8654	-5720	-5680	-5545	-5227

Probit estimations. The dependent variable is a dummy capturing the export status of firms in 2008 and/or previous years. All estimations include two-digit NACE dummies and are run on the weighted sample. The drop in the number of observations across columns is due to missing data for the firm-level variables used in the regressions. Robust standard errors in brackets. ***, **, * significant at 1%, 5%, 10%.
See Table A2 for the definition of the variables.

Table A6: Export intensive margin: OLS regression on all firms (only exporters)

VARIABLES	(1) a	(2) b	(3) c	(4) d	(5) e	(6) f	(7) g
lsize			1.261***	1.207***	1.216***	1.208***	1.195***
			[0.027]	[0.021]	[0.020]	[0.020]	[0.022]
llp2				0.917***	0.887***	0.889***	0.850***
				[0.033]	[0.032]	[0.032]	[0.035]
grad_emp					0.014***	0.013***	0.013***
					[0.002]	[0.002]	[0.002]
inno						0.161***	0.156***
						[0.055]	[0.056]
lkl							0.059***
							[0.021]
AUT	0.072	0.160	0.168	0.243*	0.314**	0.293**	0.336**
	[0.252]	[0.222]	[0.163]	[0.140]	[0.141]	[0.141]	[0.149]
FRA	-0.323***	-0.373***	-0.267***	-0.018	-0.033	-0.021	-0.018
	[0.092]	[0.086]	[0.067]	[0.059]	[0.058]	[0.058]	[0.061]
HUN	-0.785***	-0.706***	-0.722***	0.478***	0.396***	0.418***	0.344***
	[0.199]	[0.193]	[0.143]	[0.122]	[0.122]	[0.122]	[0.126]
ITA	-0.162**	-0.164**	0.312***	0.249***	0.299***	0.293***	0.229***
	[0.075]	[0.072]	[0.060]	[0.050]	[0.050]	[0.050]	[0.058]
SPA	-0.821***	-0.808***	-0.438***	-0.148**	-0.177***	-0.183***	-0.245***
	[0.088]	[0.084]	[0.069]	[0.061]	[0.060]	[0.060]	[0.065]
UK	-0.098	-0.044	-0.047	0.050	0.000	-0.007	-0.008
	[0.148]	[0.134]	[0.127]	[0.117]	[0.114]	[0.114]	[0.116]
Constant	7.172***	7.065***	2.289***	-2.252***	-2.276***	-2.375***	-2.299***
	[0.062]	[0.115]	[0.150]	[0.202]	[0.195]	[0.197]	[0.204]
Observations	5752	5694	5694	5537	5533	5533	5316
R-squared	0.019	0.108	0.451	0.584	0.592	0.593	0.581

OLS estimations. The dependent variable is the log of the firm export value recorded in 2008 for exporters. All estimations include two-digit NACE dummies and are run on the weighted sample. The drop in the number of observations across columns is due to missing data for the firm-level variables used in the regressions. Robust standard errors in brackets. ***, **, * significant at 1%, 5%, 10%.

See Table A2 for the definition of the variables.

Table A7: Export extensive margin in China and India: probit regression, only exporters

VARIABLES	(1) a	(2) b	(3) c	(4) d	(5) e	(6) f	(7) g
lsize			0.196***	0.155***	0.161***	0.152***	0.134***
			[0.017]	[0.025]	[0.025]	[0.025]	[0.026]
llp2				0.077*	0.055	0.059	0.076**
				[0.041]	[0.040]	[0.040]	[0.037]
grad_emp					0.010***	0.009***	0.009***
					[0.002]	[0.002]	[0.002]
inno						0.252***	0.247***
						[0.057]	[0.059]
lkl							0.012
							[0.023]
AUT	-0.320***	-0.368***	-0.384***	-0.195	-0.137	-0.173	-0.178
	[0.109]	[0.111]	[0.111]	[0.162]	[0.165]	[0.164]	[0.177]
FRA	-0.161***	-0.114*	-0.095	-0.033	-0.044	-0.027	-0.037
	[0.057]	[0.060]	[0.061]	[0.069]	[0.070]	[0.070]	[0.073]
HUN	-1.542***	-1.483***	-1.520***	-1.401***	-1.475***	-1.454***	-1.446***
	[0.180]	[0.183]	[0.190]	[0.247]	[0.241]	[0.240]	[0.241]
ITA	-0.323***	-0.282***	-0.203***	-0.216***	-0.176***	-0.186***	-0.216***
	[0.050]	[0.052]	[0.053]	[0.060]	[0.060]	[0.061]	[0.068]
SPA	-0.636***	-0.562***	-0.510***	-0.494***	-0.520***	-0.531***	-0.544***
	[0.059]	[0.062]	[0.063]	[0.075]	[0.075]	[0.076]	[0.081]
UK	-0.045	-0.021	0.018	0.191*	0.165	0.149	0.095
	[0.054]	[0.056]	[0.057]	[0.110]	[0.109]	[0.108]	[0.111]
Constant	-0.604***	-0.956***	-1.721***	-1.960***	-1.981***	-2.165***	-2.228***
	[0.038]	[0.082]	[0.113]	[0.245]	[0.240]	[0.240]	[0.233]
Observations	7920	7821	7821	5555	5551	5551	5329
Pseudo-R2	0.028	0.079	0.095	0.102	0.111	0.115	0.115
Wald Chi2	205.6	502.5	612.9	374.1	407.9	427.5	406.6
Log-likelihood	-3843	-3595	-3532	-2574	-2550	-2536	-2419

Probit estimations. The dependent variable is a dummy capturing the firm export activity in China and India in 2008 for exporters only. All estimations include two-digit NACE dummies and are run on the weighted sample. The drop in the number of observations across columns is due to missing data for the firm-level variables used in the regressions. Robust standard errors in brackets. ***, **, * significant at 1%, 5%, 10%.
See Table A2 for the definition of the variables.

Table A8: Export intensive margin in China and India: OLS regression, only exporters to China and India

VARIABLES	(1) a	(2) b	(3) c	(4) d	(5) e	(6) f	(7) g
lsize			0.980***	0.953***	0.978***	0.980***	0.970***
			[0.055]	[0.041]	[0.038]	[0.039]	[0.040]
llp2				0.887***	0.834***	0.832***	0.786***
				[0.083]	[0.077]	[0.077]	[0.089]
grad_emp					0.019***	0.019***	0.019***
					[0.004]	[0.004]	[0.004]
inno						-0.072	-0.080
						[0.125]	[0.129]
lkl							0.067
							[0.048]
AUT	0.763*	0.716*	0.664*	0.550*	0.696**	0.713**	0.931***
	[0.449]	[0.424]	[0.363]	[0.308]	[0.309]	[0.310]	[0.326]
FRA	-0.534***	-0.561***	-0.352**	-0.180	-0.201	-0.203	-0.123
	[0.180]	[0.170]	[0.141]	[0.136]	[0.134]	[0.133]	[0.139]
HUN	-0.394	-0.523	-0.416	0.781***	0.385	0.393	0.434*
	[0.600]	[0.706]	[0.395]	[0.197]	[0.251]	[0.254]	[0.240]
ITA	-0.286**	-0.314**	0.173	0.088	0.195	0.197	0.221*
	[0.139]	[0.146]	[0.129]	[0.124]	[0.120]	[0.120]	[0.131]
SPA	-0.726***	-0.682***	-0.465***	-0.284*	-0.359**	-0.356**	-0.330*
	[0.207]	[0.211]	[0.175]	[0.172]	[0.171]	[0.170]	[0.177]
UK	-0.501*	-0.445*	0.008	0.268	0.126	0.136	0.193
	[0.256]	[0.242]	[0.233]	[0.192]	[0.182]	[0.184]	[0.193]
Constant	5.929***	5.248***	1.269***	-3.320***	-3.402***	-3.337***	-3.344***
	[0.100]	[0.308]	[0.317]	[0.514]	[0.492]	[0.511]	[0.533]
Observations	1190	1176	1176	1151	1151	1151	1094
R-squared	0.022	0.084	0.363	0.485	0.508	0.508	0.487

OLS estimations. The dependent variable is the log of the firm export value to China and India recorded in 2008 for exporters in those countries. All estimations include two-digit NACE dummies and are run on the weighted sample. The drop in the number of observations across columns is due to missing data for the firm-level variables used in the regressions. Robust standard errors in brackets. ***, **, * significant at 1%, 5%, 10%.
See Table A2 for the definition of the variables.

Table A9: Share of family firms by country

Family firms by country: "narrow" and "wide" definition [1]			
Country	Narrow	Wide	Wide - Narrow
AUT	82.39	87.69	**5.30**
FRA	57.58	81.03	**23.44**
GER	83.87	90.88	**7.01**
HUN	55.67	81.79	**26.12**
ITA	75.60	86.81	**11.21**
SPA	76.45	83.54	**7.09**
UK	64.52	82.55	**18.03**
Total	73.73	85.98	**12.25**

(1) "narrow": family firms i.e. firms that declared family ownership; "wide": includes family firms *and* firms having an individual as the main shareholder (capital share>=30%)

Source: Authors' calculations based on the EU-EFIGE/Bruegel-UniCredit dataset.

Table A10: Export extensive margin: probit regression on all firms with "family" variables

	(1)	(2)	(3)	(4)
VARIABLES	a	b	c	d
llp2	0.214***	0.211***	0.209***	0.207***
	[0.025]	[0.025]	[0.026]	[0.027]
lsize	0.295***	0.284***	0.279***	0.257***
	[0.021]	[0.022]	[0.023]	[0.023]
grad_emp	0.008***	0.008***	0.009***	0.008***
	[0.002]	[0.002]	[0.002]	[0.002]
inno	0.475***	0.475***	0.475***	0.443***
	[0.036]	[0.036]	[0.038]	[0.039]
family_wide	-0.068	-0.034	0.030	0.055
	[0.054]	[0.054]	[0.065]	[0.066]
fam_exec			-0.001**	-0.001***
			[0.001]	[0.001]
group		0.104*	0.090	0.027
		[0.056]	[0.060]	[0.061]
centralised				-0.068
				[0.048]
forexp_exec				0.331***
				[0.053]
AUT	0.479***	0.470***	0.510***	0.507***
	[0.164]	[0.164]	[0.173]	[0.182]
FRA	-0.045	-0.062	-0.065	-0.003
	[0.047]	[0.048]	[0.049]	[0.051]
HUN	0.448***	0.442***	0.442***	0.402***
	[0.109]	[0.109]	[0.116]	[0.120]
ITA	0.258***	0.254***	0.297***	0.365***
	[0.044]	[0.044]	[0.048]	[0.050]
SPA	0.027	0.022	0.072	0.093*
	[0.047]	[0.047]	[0.052]	[0.053]
UK	0.195*	0.166	0.078	0.068
	[0.100]	[0.103]	[0.111]	[0.117]
Constant	-2.425***	-2.406***	-2.384***	-2.325***
	[0.165]	[0.166]	[0.181]	[0.187]
Observations	10231	10231	9196	8823
Pseudo-R2	0.145	0.146	0.148	0.153
Wald Chi2	1148	1146	1070	1075
Log-likelihood	-5538	-5535	-4973	-4767

Probit estimations. The dependent variable is a dummy capturing the export status of firms in 2008 and/or previous years. All estimations include two-digit NACE dummies and are run on the weighted sample. The drop in the number of observations across columns is due to missing data for the firm-level variables used in the regressions. Robust standard errors in brackets. ***, **, * significant at 1%, 5%, 10%.

See Table A2 for the definition of the variables.

Table A11: Export extensive margin in China and India: probit regression, only exporters with "family" variables

VARIABLES	(1) a	(2) b	(3) c	(4) d
llp2	0.055	0.045	0.056	0.054
	[0.040]	[0.040]	[0.043]	[0.044]
lsize	0.143***	0.124***	0.132***	0.113***
	[0.025]	[0.027]	[0.028]	[0.030]
grad_emp	0.009***	0.009***	0.007***	0.006***
	[0.002]	[0.002]	[0.002]	[0.002]
inno	0.259***	0.260***	0.232***	0.206***
	[0.057]	[0.057]	[0.061]	[0.062]
family_wide	-0.119*	-0.059	0.048	0.018
	[0.070]	[0.075]	[0.088]	[0.090]
fam_exec			-0.002**	-0.001
			[0.001]	[0.001]
group		0.167**	0.158*	0.180**
		[0.077]	[0.083]	[0.084]
centralised				-0.035
				[0.065]
forexp_exec				0.126*
				[0.068]
AUT	-0.181	-0.201	-0.271	-0.300
	[0.164]	[0.164]	[0.175]	[0.194]
FRA	-0.046	-0.081	-0.088	-0.081
	[0.071]	[0.074]	[0.075]	[0.079]
HUN	-1.485***	-1.497***	-1.392***	-1.315***
	[0.239]	[0.244]	[0.246]	[0.252]
ITA	-0.195***	-0.202***	-0.158**	-0.140**
	[0.061]	[0.061]	[0.065]	[0.068]
SPA	-0.546***	-0.559***	-0.593***	-0.611***
	[0.076]	[0.076]	[0.087]	[0.089]
UK	0.111	0.053	0.009	0.018
	[0.110]	[0.110]	[0.122]	[0.131]
Constant	-2.004***	-1.955***	-2.076***	-1.937***
	[0.258]	[0.260]	[0.274]	[0.280]
Observations	5544	5544	4961	4741
Pseudo-R2	0.116	0.118	0.117	0.112
Wald Chi2	434.5	446.4	398.5	377.2
Log-likelihood	-2529	-2525	-2248	-2158

Probit estimations. The dependent variable is a dummy capturing the firm export activity in China and India in 2008 for exporters only. All estimations include two-digit NACE dummies and are run on the weighted sample. The drop in the number of observations across columns is due to missing data for the firm-level variables used in the regressions. Robust standard errors in brackets. ***, **, * significant at 1%, 5%, 10%.

See Table A2 for the definition of the variables.

Table A12: Export intensive margin: OLS regression on exporters with "family" variables

VARIABLES	(1) a	(2) b	(3) c	(4) d
llp2	0.881***	0.864***	0.847***	0.850***
	[0.032]	[0.032]	[0.033]	[0.034]
lsize	1.190***	1.156***	1.145***	1.106***
	[0.021]	[0.023]	[0.024]	[0.026]
grad_emp	0.013***	0.012***	0.012***	0.010***
	[0.002]	[0.002]	[0.002]	[0.002]
inno	0.165***	0.165***	0.162***	0.118**
	[0.055]	[0.054]	[0.056]	[0.056]
family_wide	-0.210***	-0.102	-0.067	-0.055
	[0.067]	[0.067]	[0.080]	[0.077]
fam_exec			-0.002***	-0.002**
			[0.001]	[0.001]
group		0.308***	0.317***	0.311***
		[0.069]	[0.071]	[0.069]
centralised				-0.042
				[0.053]
forexp_exec				0.363***
				[0.060]
AUT	0.285**	0.253*	0.265*	0.263*
	[0.141]	[0.139]	[0.145]	[0.159]
FRA	-0.049	-0.112*	-0.147**	-0.077
	[0.059]	[0.061]	[0.062]	[0.063]
HUN	0.390***	0.363***	0.338***	0.491***
	[0.123]	[0.122]	[0.131]	[0.141]
ITA	0.280***	0.268***	0.317***	0.390***
	[0.050]	[0.050]	[0.055]	[0.055]
SPA	-0.207***	-0.224***	-0.243***	-0.227***
	[0.061]	[0.060]	[0.068]	[0.068]
UK	-0.065	-0.164	-0.271**	-0.232*
	[0.116]	[0.119]	[0.132]	[0.138]
Constant	-2.085***	-1.992***	-1.844***	-1.798***
	[0.220]	[0.219]	[0.229]	[0.240]
Observations	5526	5526	4946	4729
R-squared	0.594	0.598	0.598	0.601

OLS estimations. The dependent variable is the log of the firm export value recorded in 2008 for exporters. All estimations include two-digit NACE dummies and are run on the weighted sample. The drop in the number of observations across columns is due to missing data for the firm-level variables used in the regressions. Robust standard errors in brackets. ***, **, * significant at 1%, 5%, 10%.

See Table A2 for the definition of the variables.

Table A13: Export intensive margin in China and India: OLS regression, only exporters with "family" variables

VARIABLES	(1) a	(2) b	(3) c	(4) d
llp2	0.826***	0.821***	0.826***	0.772***
	[0.077]	[0.075]	[0.080]	[0.078]
lsize	0.960***	0.937***	0.929***	0.928***
	[0.041]	[0.044]	[0.045]	[0.046]
grad_emp	0.019***	0.018***	0.016***	0.014***
	[0.004]	[0.004]	[0.004]	[0.004]
inno	-0.060	-0.055	-0.027	-0.094
	[0.125]	[0.126]	[0.133]	[0.137]
family_wide	-0.225*	-0.153	-0.252	-0.232
	[0.132]	[0.137]	[0.159]	[0.162]
fam_exec			0.001	0.001
			[0.002]	[0.002]
group		0.197	0.170	0.163
		[0.135]	[0.144]	[0.140]
centralised				0.131
				[0.117]
forexp_exec				0.296***
				[0.113]
AUT	0.690**	0.650**	0.678**	0.797**
	[0.302]	[0.299]	[0.320]	[0.402]
FRA	-0.251*	-0.289**	-0.313**	-0.243*
	[0.135]	[0.138]	[0.139]	[0.143]
HUN	0.281	0.332	0.273	0.164
	[0.231]	[0.243]	[0.252]	[0.233]
ITA	0.176	0.164	0.159	0.232*
	[0.120]	[0.120]	[0.128]	[0.131]
SPA	-0.405**	-0.421**	-0.483**	-0.419**
	[0.171]	[0.170]	[0.198]	[0.198]
UK	0.052	-0.018	0.045	0.021
	[0.197]	[0.200]	[0.228]	[0.239]
Constant	-3.060***	-3.046***	-2.788***	-2.625***
	[0.538]	[0.536]	[0.562]	[0.577]
Observations	1148	1148	1031	983
R-squared	0.513	0.514	0.518	0.523

OLS estimations. The dependent variable is the log of the firm export value to China and India recorded in 2008 for exporters in those countries. All estimations include two-digit NACE dummies and are run on the weighted sample. The drop in the number of observations across columns is due to missing data for the firm-level variables used in the regressions. Robust standard errors in brackets. ***, **, * significant at 1%, 5%, 10%.
See Table A2 for the definition of the variables.