

Managers Mobility, Trade Status, and Wages

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ABSTRACT:

This paper investigates whether the arrival of managers with "export *savoir faire*", i.e. experience acquired through participation in the export activity of previous employers, is related to firms' international trade status and to what extent this relationship is of a causal nature. We construct a worker-firm matched panel data set which enables us to track managers across different firms over time and observe firms' trading stance as well as a large set of workers' and firms' characteristics. Contrary to blue and white collars, we find that managers are paid a sizeable premium for their export experience with such premium being higher in trade-involved firms. Conditioning for the firm past trade status, we find that a one standard deviation increase in the firm's share of managers' with export experience corresponds to about 11-16% more chances of starting to export. The impact is particularly strong for less productive firms, for hiring occurring in the two years preceding export entry and is roughly of the same order of magnitude of the firm productivity effect. On the contrary, export experience acquired by managers from previous employers has no substantial impact on firms' decisions to keep exporting. In a final step, we consolidate the causal interpretation of these findings by considering only managers' mobility due to firms' closures, i.e. job displacement.

Keywords: Managers, worker mobility, trade status, wage premia, displacement

JEL classification: F10, L25, J31, J60, M50

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1. Introduction

Firm heterogeneity in productivity is a key ingredient in the recent theoretical trade literature. Starting with the seminal paper by Melitz (2003), many models have been building around a ‘darwinian’ selection mechanism of firms into export. The recent availability of firm-level trade data has allowed to heavily improve our understanding of the determinants of export status. As highlighted by many empirical studies, selection into export activity based on firm productivity is indeed a very robust finding. At the same time, there is large evidence that trade liberalization induces intra-industry productivity gains due to the re-allocation of market shares among the most productive firms. Furthermore, data suggest that exporting firms differ in dimensions other than productivity. In particular they are larger, have a more skilled workforce, do more R&D, and pay higher wages.

However, even considering all these different dimensions, we are still far from matching the degree of cross-sectional heterogeneity across firms in their export participation and intensity. There are indeed many very productive firms that do not export at all and quite a few very unproductive firms that do sell abroad. One possibility is that firms face idiosyncratic barriers to enter foreign markets like in Eaton, Kortum and Kramarz (2008). Though, the nature and size of such barriers is rather unclear. The ample evidence that firms incur substantial sunk costs to entry export markets is in fact in stark contrast with the ‘volatility’ of the export activity across time. There is indeed a lot of entry and exit with, for example, the bulk of new exporters surviving only one year (Eaton, Eslava, Kugler and Tybout (2008)). Moreover, firms seem to experiment their products on one market and eventually expand in different markets (‘sequential exporting’) like in Albornoz, Calvo-Pardo, Corcos and Ornelas (2010).

The above elements suggest that market information-related costs might play a key role in determining export status and its dynamics. Managers are at the core of marketing and commercialization activities within the firm and should thus be of primary interest in the quest for such market information-related costs. At the same time, managers are also different from other workers because of the complexity of the tasks they perform. They are indeed responsible for the most complex tasks including the organization of the firm, strategic planning, the shaping of technical, scientific and administrative methods or processes and the orientation of teams. Complexity is at the heart of a growing literature looking at the relationship between trade and tasks. Blinder (2006) and Grossman and Rossi-Hansberg (2008) suggest that the complexity of the tasks involved in the different stages of the production process (design, manufacturing of parts, assembly, R&D, marketing, commercialization, etc.) is key to understand recent trends in international trade and in particular outsourcing. In this perspective, managers can again turn out to be

crucial when the dividing line across firms is export status.

In order to explore these ideas, we construct a unique data set for Portugal by merging two sources. The first one is *Quadros de Pessoal*, a matched employer-employee data set covering the entire population of workers and widely used in the labor literature. The second is the universe of transaction-level firm-trade data coming from customs returns forms (extra-EU trade) and Intrastat forms (intra-EU trade). The two data sets are merged by means of the firm identifier and provide us the means to draw a sharp portrait of the workers' (and especially managers') export experience and its flow across firms with different trade status. This is possible thanks to two quite unique features of our data: an (almost) exhaustive coverage and a high degree of reliability. These two key characteristics allow us to follow workers and firms over time while being able to record workers' accumulation of export experience and changes in firms' export activity. Furthermore, the richness of the data allow us to control for a wealth of both worker and firm characteristics like (among others) job location, workers' education and skills, and firms' size, productivity and hiring dynamics.

As a first step in the quest of a causal relationship between the export experience brought by managers into a firm and its trade status we assess whether such an experience is valued by trade-involved firms. To achieve this goal, we estimate a Mincerian wage equation and test both whether there is evidence of an export experience premium and whether such premium is related to the degree of involvement of a firm into the export activity. A related question that we also address is whether export experience is valuable only when the worker is a manager or rather if a premium exists also for non-managers. The existence of a premium for managers *only* would be in line with our idea that managers are special when it comes down to exporting because of both the complexity of the tasks involved in their job and the special nature of some of the activities (like marketing and commercialization) they are responsible for.

Overall, we find that the (for us) observable export experience is related to a worker's wage with the magnitude being rather large. Contrary to what implicitly assumed in Muendler and Molina (2009), our evidence suggests that it is not the experience of all workers which is valuable to the exporting activity of a firm but only the experience brought in by managers. Furthermore, our findings point (in some cases) to the existence of a larger experience premium for managers in trade-involved firms with respect to non-exporters which suggests that such an experience is more valuable for the former. Overall, this picture is in line with the idea that managers do have a positive causal impact on firms' trade performance, this impact translates into an increase in the expected stream of profits and is reflected in higher wages. However, it might still be the case that this premium is related to the manager contributing to profitability margins other than pure trading activities like innovation, management of human resources, etc. Indeed, the

fact that the premium is in some specifications positive also for non-exporters and/or not statistically different between the latter and export-involved firms suggests that managers with export experience are by some measure “better” in dimensions that go beyond the export activity.

In order to provide more substantive evidence of such a causality, we model a firm’s trade status and its evolution over time as a function of a large battery of time-varying control as well as of the share of current managers in the firm that have export experience. Moreover, following Roberts and Tybout (1997), we condition for the firm past trade status, the latter reflecting the option value of sunk entry costs. In the first part of the analysis we focus on export entry and compare New and Never exporters. In the subsequent analysis we turn to export exit and compare Exiting and Continuing exporters.

Our estimations indicate that a one standard deviation increase in the firm’s share of managers’ with export experience corresponds to about 11-16% more chances of starting to export. The impact is particularly strong for less productive firms, for hiring occurring in the two years preceding export entry and is roughly of the same order of magnitude of the positive firm productivity effect. On the contrary, export experience acquired by managers from previous employers has no substantial impact on firms’ decisions to keep exporting.

One may reasonably wonder whether our estimation strategy and controls are sufficient to cope with the bias coming from potentially omitted variables, the timing of events and simultaneity. We deal with these issues by using firm closure and displaced workers as in Dustmann and Meghir (2005). The intuition is simple: as long as firm closure is exogenous then workers (and so managers) that have been displaced represent a random sample of the workforce that is exogenously assigned to new employers and jobs. To make our argument stronger, we actually consider only the first job after displacement because subsequent jobs might become again endogenous to what we want to measure. Estimations based on displaced managers broadly confirms former results while dampening magnitudes.

The rest of the paper is organized in five additional Sections. Section 2 describes the construction of our data set. Section 3 contains the definitions of our key variables (managers, export experience, trade status, and displacement), links them to our analysis and provide a first glance to the data. Section 4 develops a Mincerian wage analysis to test both whether there is evidence of an export experience premium and whether such premium is related to the degree of involvement of a firm into the export activity and/or the type of worker (managers vs. non-managers). In Section 5 we explicitly model a firm’s trade status and its evolution over time as a function of a large battery of time-varying control as well as of the share of current managers in the firm that have

export experience. We condition for firm past trade status and provide estimations based on all managers as well as on displaced managers only. Section 6 concludes. Additional details about the data and complementary Tables are provided in the Data and Tables Appendix respectively.

2. Data

Our analysis relies on information resulting from the merge of two major data sets: a panel data set on trade at the firm-country-product level and a matched employer-employee panel data set. Trade data come from Statistics Portugal (INE - *Instituto Nacional de Estatística*) while employer-employee data come from *Quadros de Pessoal* (QP), a data set made available by the Ministry of Labor and Social Security. In the following, we describe in detail each of the original data sets and the sample resulting from the merge.

2.1 Trade Data

Statistics Portugal collects data on export and import transactions by firms that are located in Portugal, on a monthly basis. These data are derived from customs returns forms in the case of extra-EU trade and from a special form supplied to the Portuguese statistics agency, in the case of intra-EU trade (Intrastat). Because we use the same data that are used for official statistics, the merchandise transactions in our data set approximately aggregate to the official total exports and imports of Portugal. Each transaction record includes, among others, the firm's tax identifier, an eight-digit Combined Nomenclature product code, the destination/origin country, the value of the transaction in euros, the quantity (in kilos and, in some case, additional product-specific measuring units) of transacted goods, and the relevant international commercial term (FOB, CIF, FAS,...etc.).¹ We were able to gain access to data from 1995 to 2005 for the purpose of this research. We use data on export transactions only, aggregated at the firm-year level.

¹In the case of intra-EU trade, firms have the option of "adding up" multiple transactions only when they refer to the same month, product, destination/origin country, Portuguese region and port/airport where the transaction originates/starts, international commercial term, type of transaction (sale, re-sale,...etc.), and transportation mode. Firms are required to provide information on their trade transactions if the volume of exports or imports in the current year or in the previous year or two years before was higher than 60,000 euros and 85,000 euros respectively. More information can be found on: <http://webinq.ine.pt/public/files/inqueritos/pubintrastat.aspx?Id=168>.

2.2 Matched Employer-employee Data

The second main data source, *Quadros de Pessoal*, is a longitudinal data set matching all firms and workers based in Portugal.² As for the trade data, we were able to gain access to information from 1995 to 2005. Information for the year 2001 is only partly available due to issues arisen in the collection of the data. In the next Section we provide details on how we deal with this missing data problem for some key variables of our analysis.

The data are made available by the Ministry of Labor and Social Security, drawing on a compulsory annual census of all firms in Portugal that employ at least one worker. Each year every establishment with wage earners is legally obliged to fill in a standardized questionnaire. Reported data cover the establishment itself, the firm and each of its workers. The variables available in the data set include the firm's location, industry, total employment, sales, ownership structure (equity breakdown among domestic private, public or foreign), and legal setting. The worker-level data cover information on all personnel working for the reporting firms in a reference month (October). They include information on gender, age, occupation, schooling, hiring date, earnings, hours worked (normal and overtime), etc. The information on earnings is very complete. It includes the base wage (gross pay for normal hours of work), seniority payments, regular benefits, irregular benefits and overtime pay.

Each firm entering the database is assigned a unique, time-invariant identifying number which we use to follow firms over time. The Ministry of Labor and Social Security implements several checks to ensure that a firm that has already reported to the database is not assigned a different identification number. Similarly, each worker also has a unique identifier, based on the worker's social security number, which we use to follow individuals over time. The administrative nature of the data and their public availability at the workplace - as required by the law - imply a high degree of coverage and reliability. The public availability requirement facilitates the work of the services of the Ministry of Employment that monitor the compliance of firms with the law (e.g., illegal work).

²*Quadros de Pessoal* has been used by, amongst others, Cabral and Mata (2003) to study the evolution of the firm size distribution; by Blanchard and Portugal (2001) to compare the U.S. and Portuguese labor markets in terms of unemployment duration and worker flows; by Cardoso and Portugal (2005) to study the determinants of both the contractual wage and the wage cushion (difference between contractual and actual wages); by Martins (2009) to study the effect of employment protection on worker flows and firm performance. See these papers also for a description of the peculiar features of the Portuguese labor market.

2.3 Final Data Set

The two data sets are merged by means of the firm identifier. As in Cardoso and Portugal (2005), we account for sectoral and geographical specificities of Portugal by restricting the sample to include only firms based in continental Portugal while excluding Nace rev.1 2-digit industries 1, 2, and 5 (agriculture and fishery) as well as 95, 96, 97, and 99 (minor service activities and extra-territorial activities). Turning to workers, we consider only single-job full-time workers aged between 16 and 65 and working a minimum of 25 and a maximum of 80 hours (base plus overtime) per week. The hourly wage in euros is based on the total number of hours worked (normal plus overtime) and is constructed as the sum of the base wage plus overtime wages and regular benefits. In order to control for outliers, we apply a trimming based on the hourly wage and eliminate 0.5% of the observations on both extremes of the distribution.

In what follows we focus on manufacturing firms only (Nace codes 15 to 37) because of the closer relationship between the export of goods (that is key in our analysis) and the production activity of the firm.³ Furthermore, being "managers" the job category we are particularly interested in, we focus our analysis on the subset of firms with at least one employed manager. The majority of firms in our data do not have an (employed) manager (60.8%). Indeed, to identify managers we need the person(s) running the firm to be paid a wage. For example, a firm owner running a firm as a self-employed will be picked up in our data because a wage, along with an individual identifier, is reported in the QP. This is also the case whenever the person running the firm is a third person employed by the owners(s). However, if there is not third person(s) and none of the owners is self-employed we won't be able to attribute managers to the firm. Our analysis is thus representative of larger and more organizationally structured firms that are indeed those accounting for the bulk of trade in Portugal. Indeed, firms with at least one manager represent (in 2004) 71.9% of exporting firms and account for 95.9% of Portuguese exports in the manufacturing industry and for 75.9% of employment.

Insert Table 1 about here.

In our study we perform two complementary analyses. In section 4 we estimate a wage equation in order to identify the existence of a premium for workers' export experience whose definition, along with those of firm trade status, managers and displaced workers, is provided in Section 3.1. In Section 5 we investigate the link between managers, export experience, and firm trade status. Because of the requirements imposed by our definitions, both analyses have been performed over the period 1997-2004. Table 1 reports

³As explained below, even though our analysis focuses on manufacturing firms we use data both on manufacturing and non-manufacturing firms to build some of our key variables. Moreover, we also carried out a complete analysis for non-manufacturing firms. Results are available upon request.

summary statistics (for the year 2004) for both worker-level and firm-level variables used in wage regressions and referring to observations for which all covariates are available. Table 5 contains instead 2004 summary statistics for the main additional firm covariates used in the trade status regressions. The upper part of Table 1 indicates that in 2004 there are 386,913 workers in our sample with an average age of 38.4 years, an average education of 7.4 years, and an average firm tenure of 10.5 years.⁴ 15.1% are managers, 6.1% are white collars, 73.8% are blue collar, and 5% belong to a residual category. The bottom part of Table 1 tells us that these workers are employed by 12,403 firms and reports the average (log) size and apparent labor productivity across firms, as well as their (log) age, the share of foreign-owned firms (4.9%), and the mean and standard deviation of managers' age and education within the firm.⁵

We provide in the next Section the definition of the key variables of our analysis while expanding on the scope of our research. We further give a first glance on the existence of a wage premium for managers with export experience as well as statistics on the distributions of experienced managers across firms with different trade status.

3. Managers, export experience, trade status, and displacement

3.1 Key definitions and scope of the research question

Throughout our analysis we distinguish between managers and non-managers. Conceptually, we want to identify a group of workers (managers) that is responsible for the main strategic decisions taken within the firm. Managers are responsible for high-level tasks including the organization of the firm, strategic planning, the shaping of technical, scientific and administrative methods or processes and the orientation of teams.⁶ In practical terms, we refer to a classification of workers according to eight hierarchical levels defined by the Portuguese law.⁷ The classification is made according to the task performed and skill requirements and each level can be considered as a layer in a hierarchy defined in terms of increasing responsibility and task complexity. Each firm is required to classify workers according to these grade levels. Table 18 in the Tables Appendix supplies a full description of the hierarchical levels. We define a manager as a

⁴We thank Anabela Carneiro for providing the conversion table between education categories (as defined in QP) and number of years of schooling for every year of the data.

⁵Further details about job categories, and in particular managers, are provided in Section 3.1 while worker tenure, wage and the identification of the hiring date as well as firm age, size, apparent labor productivity and foreign-ownership are defined and described at length in the Data Appendix.

⁶Bertrand and Schoar (2003) investigate whether individual managers affect corporate behavior. Even though they cannot claim causality, they do find systematic behavioral differences in corporate decision-making across managers. Bloom and Reenen (2010) claim that differences in productivity across countries and firms largely reflect variations in management practices.

⁷See the Decreto Lei 121/78 of July 2nd.

worker belonging to one of the top three hierarchical levels: "Top management", "Middle management" or "Supervisors and team leaders". Moreover, we define as "white collar" a worker belonging to the fourth hierarchical level ("Higher-skilled professionals"), as "blue collar" a worker belonging to the fifth ("Skilled professionals"), sixth ("Semi-skilled professionals") or seventh ("Non-skilled professionals") hierarchical level and as "other collar" apprentices and other workers. In the second column of Tables 2 and 3 we report the number of, respectively, workers and managers for each year of the estimation sample (1997 to 2004).

Insert Tables 2 and 3 about here.

There is a growing literature looking at the relationship between trade and tasks. Blinder (2006) and Grossman and Rossi-Hansberg (2008) suggest that the complexity of the tasks involved in the different stages of the whole production process (design, manufacturing of parts, assembly, R&D, marketing, commercialization, etc.) is key to understand recent trends in international trade and in particular outsourcing. At the same time, Antràs, Garicano and Rossi-Hansberg (2006) explicitly focus on teams of workers and their formation in a globalized economy and highlight the key distinction between managers and non-managers based on tasks complexity. Managers are different from other workers and likely to be particularly important for trade activity because they are responsible for the most complex tasks within a firm. On the other hand, managers are also different from other workers because they are in charge of marketing and commercialization activities that are not necessarily more complex like, for example, setting-up distribution channels, finding and establishing relationships with foreign suppliers, setting up marketing activities directed at finding and informing new buyers, and building a customer base. Arkolakis (2007) and Eaton, Eslava, Kugler and Tybout (2009) stress the role of marketing costs in international trade and provide evidence of the importance of the continuous "search and learning about foreign demand" problem that firms face when selling abroad. At the same time, Araujo, Mion and Ornelas (2010) shows the importance of trust-building in repeated interactions between sellers and buyers in an international market.

It is certainly difficult to draw a straight line between these two dimension under which managers are different. Indeed, researching the foreign regulatory environment and adapting the product to make sure that it conforms to foreign standards (which includes testing, packaging, and labeling requirements) is a commercialization activity that involves complex tasks. In a similar vein, making sure the product meets the right quality standards for the targeted foreign demand which is, as showed in Verhoogen (2008) and Iacovone and Javorcik (2009), a key element of international success is an example of an activity characterized by both a strong commercial nature and tasks

complexity.

It is beyond the scope of our research to disentangle the impact of these two facets and in what follows we refer to both as “export *savoir faire*”. We are particularly interested to capture the flow of such *savoir faire* across firms via the mobility of managers and, more precisely, we want to identify the significance and magnitude of this channel on firms’ trade status change. Firms’ trading status, managers, and worker mobility are therefore, for our purposes, three crucial interconnected aspects of the data. Exploiting the matched employer-employee feature of our data set, we are able to track workers over time. This allows us to identify, for each firm-year pair, the subset of currently employed workers that have previously worked in a different firm. Moreover, exploiting the trade data set, we can single-out (i) those workers that were employed in the past by an exporting firm and, in addition, (ii) by “big exporters”, i.e. firms with exports above the sectoral median. We define workers in the former group as “workers with export experience acquired outside the firm” and those workers in the latter group as “workers with *strong* export experience acquired outside the firm”. In the remaining of the paper, we will refer to the first group simply as “workers with export experience” and to the second group as “workers with strong export experience”. Furthermore, since we are able to track all workers, we can identify both managers and non-managers with (regular or strong) export experience. Columns 3 and 4 of Tables 2 and 3 report the number of, respectively, workers and managers for each year of the estimation sample with regular and strong export experience.

It is important to stress that we focus here on one out of many possible channels of export *savoir faire* transmission and that a distinction should be made between internal and external export experience. From the perspective of a firm wanting to enter the export market for the first time, experience can only be acquired from sources outside the firm as there is no in-house previously accumulated stock of knowledge. In this light, our analysis looks at the effect of experience related to export activity brought into a firm by newly hired workers on the likelihood to become an exporter. Though arguably important, other channels are certainly at work. For example, export experience can also be developed via training programs aimed at increasing managers’ knowledge and links to foreign markets. Other information sources, like partnership and/or business projects between exporting and non exporting firms, can also drastically impact the capacity of a firm to engage in international trade.⁸ On the other hand, from the perspective of a firm which is already exporting, there is already some available export experience within the firm. In this perspective, our analysis can also shed light on the substitutability/complementarity between external and internal sources of export experience.

⁸However, the evidence provided in Bernard and Jensen (2004) suggests that the impact of export promotions programs and industry/geographical informational spillovers among exporters is rather weak.

In order to distinguish between those two cases, we consider several firm trade status categories. Partly following Eaton, Eslava, Kugler and Tybout (2008), we divide firms into five categories on the basis of their (temporal) degree of involvement in export markets. Each firm is classified, at any point in time, as a "New exporter", "Continuing exporter", "Exiting exporter", "Never exporter" or "Other exporter". The classification is exhaustive and is based upon the behavior of the firm in a time span of four years. Specifically, a firm in year t is classified as a (i) "New exporter" if the firm exports both in t and in $t + 1$ but was not exporting in the two preceding years ($t - 1$ and $t - 2$); (ii) "Continuing exporter" if the firm exports continuously from $t - 2$ to $t + 1$; (iii) "Exiting exporter" if the firm was exporting in $t - 2$ and $t - 1$ but does not export in the following two years (t and $t + 1$); (iv) "Never exporter" if the firm never exports from $t - 2$ to $t + 1$; (v) "Other firm" if the firm does not belong to any of the previous categories. Table 4 reports the number of firms classified by trade status for each year in the sample. In Section 5, we study the relationship between managers with export experience and firms' trade status change by focusing on two comparisons: "New exporters" vs. "Never exporters" and "Exiting exporters" vs. "Continuing exporters". The idea behind this strategy is to compare, at each point in time t , firms with the same (two years-long) exporting history but that "suddenly" take divergent paths. Considering those firms that were not exporting both in $t - 2$ and in $t - 1$, we are interested in understanding if and how much experienced managers affect entry into the export activity. On the other hand, when comparing firms that were exporting both in $t - 2$ and in $t - 1$, we are interested in understanding if and how much experienced managers affect the capacity of the firm to keep exporting. In both cases, we are interested in an "informed/successful/structured" decision to export as opposed to a "random/occasional" presence in export markets and this is the reason we use two year continuous (non-)export intervals to construct our trade status categories. A number of recent papers (e.g. Eaton, Eslava, Kugler and Tybout (2008) for Colombian firms, Amador and Opromolla (2008) for Portuguese firms, and Albornoz et al. (2010) for Argentinean firms) has unveiled quite a few randomness showing that (i) many exporters are single-year, i.e. they export only for a year (or less), (ii) their average export sales are extremely below average, and (iii) their average export sales grow rapidly, conditional on survival. In our data single-year exporters are classified as "Other exporters".

Insert Table 4 about here.

In the last part of the paper, we refine our analysis by considering only the subset of workers that change firm because of displacement and we focus in particular on firm

closure.⁹ The goal of this exercise is to establish a stronger causal link between export experience, managers' mobility, and trade status building on the exogenous variation in the data induced by firm closure. Arguably, a firm closure can be thought to be an exogenous shock to a worker's career, since it results in a separation of all plant's workers and it is not related to the worker's own job performance.

In order to classify workers as "displaced" we partly follow Carneiro and Portugal (2006) and proceed in three steps. First we identify firms' closures between 1995 and 2003. We define a firm as shutting down in year t when the firm is observed in the QP data in year t but is not observed in the data set in any of the three subsequent years.¹⁰ Second, we identify those workers that used to be employed in the past by a firm shutting down in t and that stayed in the closing firm till either t or $t - 1$. In order to distinguish workers' mobility due to firms' closures from mobility due to mergers & acquisitions we use the hiring date of the worker in the current firm. In particular, we require the worker hiring year in the current firm not to be smaller than the closure year.¹¹ Finally, to make our argument stronger, we consider for this set of workers only those observations pertaining to their first job after displacement because subsequent employer changes are likely to be endogenous to both worker and employer characteristics. Columns 5 and 6 of Table 2 report the number of displaced workers with export experience for each year of the sample. Table 3 reports the same statistics for managers.

All in all, the QP and trade data sets provide us the means to draw a sharp portrait of the workers' (and especially managers') export experience and its flow across firms with different trade status. This is possible thanks to two quite unique features of our data: an (almost) exhaustive coverage and a high degree of reliability. These two key characteristics allow us to follow workers and firms over time while being able to record workers' accumulation of export experience and changes in firms' export activity. Furthermore, the richness of the data allow us to control for a wealth of both worker and firm characteristics like (among others) job location, workers' education and skills, and firms' size, productivity and hiring dynamics. Last but not least, the capacity to precisely identify firms' closures and job displacement enriches our investigation with a key element to assess a causal relationship.

⁹Displacement is usually defined as the permanent and involuntary separation of workers from their jobs without cause (i.e. for economic reasons). Displacement occurs when a firm shuts down or substantially downsizes.

¹⁰This time span should be sufficiently long to avoid measurement errors due to "temporary exits", with the most likely reason for such exits being that the survey form was not received by the Ministry of Employment before the date when the recording operations were closed. See Carneiro and Portugal (2006) for further details.

¹¹The reason is that, in the case of mergers & acquisitions, the hiring year of workers who stayed in the new firm is likely to be the hiring year corresponding to the pre-merger/pre-acquisition situation.

3.2 *A first glance*

There is a large body of literature concerned with the existence and the explanation of a wage premium for workers of exporting (as opposed to non-exporting) firms.¹² As shown in Martins and Opromolla (2009), Portugal is not an exception to this robust empirical finding. What Figures 1 and 2 add to this debate is that the wage premium seems to come essentially from managers. Figure 1 shows the kernel density of the log hourly wage distribution in our 2004 sample for non-managers broken down by firm export status.¹³ The densities of export-involved firms (new, exiting, and continuing exporters), when compared to the density of Never exporters, indicate somewhat higher wages but magnitudes look pretty small. Differences become much clearer in Figure 2 when the same descriptive exercise is applied to managers' wage densities. Export-involved firms seem to consistently pay managers more. The evidence is particularly strong for exiting exporters in the middle-top of the distribution, while for continuing and new exporters the difference is more pronounced when considering top wages.

Insert Figures 1 and 2 about here.

Such purely descriptive result certainly needs econometric testing and controls for both workers and firms characteristics. However, to the extent that the size of the premium conveys information about the value of a worker for a firm, Figures 1 and 2 indicate that managers are relatively more valuable for export-involved firms. This is consistent with our idea that those workers (managers) involved in high-level tasks (like organization, strategic planning, and team orientation) as well as in marketing and commercialization activities are of particular value when the dividing line across firms is the export activity.

Insert Figure 3 about here.

A further step, which is more closely related to our research question, is to ask whether managers' export experience pays, i.e. if there exists a premium for the export experience of a manager. Figure 3 provides a descriptive answer to such a question while Section 4 delivers a more solid econometric answer building on a Mincerian wage regression. The top-left panel of Figure 3 shows the kernel density of the log hourly wage distribution, in our 2004 sample, for managers with and without export experience referring to the group of Never exporters. Interestingly enough, managers with export experience seem to gain higher wages than managers without such experience in Never exporting firms. This finding is consistent with managers' export experience being correlated with some other

¹²See Schank, Schnabel and Wagner (2007), Munch and Skaksen (2008), and Frias, Kaplantz and Verhoogen (2009) among others.

¹³The density referring to the group "Other exporters" is not reported in order to make the picture more readable.

valuable (for both trading and non-trading firms) characteristics. Particular attention should thus be paid in the econometric analysis in order to control for both observables and non-observables potentially correlated with export experience.

The remaining panels of Figure 3 display the same kernel distribution in the three other firm groups: new, continuing, and exiting exporters. It is pretty clear from the Figure that in all cases higher wages are paid to managers with export experience thus suggesting that also export-involved firms value export experience. What is not clear from Figure 3 is whether the export experience premium paid by trade-involved firms is higher than that paid by Never exporters. This is a rather important issue as a negative answer would make the interpretation of the export experience premium problematic. It would indeed be difficult to argue that such premium reflects, to some extent, the value of the export *savoir faire* of a manager (that we aim to identify) and not some other feature like ability and/or past success. We provide a more precise answer to this question in Section 4.

Insert Tables 5 and 6 about here.

In Section 5 we complement our wage analysis by looking at trade patterns across firms and their link to the presence and/or arrival of managers with export experience. Table 5 provides summary statistics about the distribution of managers with export experience (both regular and strong) in 2004. 26% (20.7%) of our 12,403 firms have at least one manager with regular (strong) export experience with the average share of managers with regular (strong) export experience within a firm being 13.1% (9.6%). The Table further provide the breakdown of the 26% (20.7%) figure according to the four intervals identified by the quartiles of the distribution of the share of managers with regular export experience across all firms.¹⁴

Table 6 provides some summary statistics about the distribution of managers with regular export experience across firms with different trade status in 2004. The second column provides the share, within each trade status group, of firms with at least one manager with export experience in our 2004 sample. The remaining columns (that sum up to one) show the breakdown of this share according to the four intervals identified by the quartiles of the distribution of the firm-level share of managers with export experience across all firms. All export-involved groups, except new exporters, display a higher share of firms having at least one manager with export experience with respect to Never exporters. Moreover, across firms with experienced managers, there are many continuing (38.3%) and, especially, new exporters (42.2%) with a share of managers with export experience belonging to the top interval of the distribution. At the other extreme

¹⁴The first, second, third, and fourth quartiles are 0.16, 0.33, 0.89, and 1, respectively, in the pooled 1997-2004 sample of firms with at least one manager with export experience.

exiting exporters have, among firms with experienced managers, relatively low shares in the two top intervals of the share of managers with export experience distribution.

Table 5 provides the share of current managers that have been hired in either year t , or $t - 1$, or $t - 2$. Figures shows that there is a sizeable turnover rate across firms with (on average) 6 to 8% of the current managers joining a firm in each of the three dates. Table 7 shows a year-to-year transition matrix describing the mobility of managers across firms with different trade status categories constructed using the pooled 1997-2004 sample. Each cell in the matrix presents three measures of the flow of managers that change firm and, eventually, move to a firm with a different trade status from $t - 1$ ($t - 2$ if $t = 2002$) to t , where $t = 1998, 1999, 2000, 2002, 2003, 2004$.¹⁵ The top figure in each cell measures the absolute frequency, i.e. the number of managers; the intermediate figure measures the relative frequency within each row; the bottom figure measures the relative frequency within each row after weighting worker flows by the inverse of the share of managers associated to the trade status category (measured in $t - 1$) of the destination firm.

Insert Table 7 about here.

Table 7 reads as follows. When taking the cell corresponding to Continuing exporter in $t - 1$ and New Exporter in t the top entry indicates that 669 managers moved from a Continuing to a New exporter firm in the 1997-2004 period. The middle entry indicates that these 669 managers represent 17.12% of all managers moving from a Continuing exporter to another firm. Of course, some managers change firm but not the trade status of their employer. The Continuing exporter in $t - 1$ and Continuing exporter in t cell reveals that 2,204 managers changed employer with both the previous and current employer being Continuing exporters. These managers represent 56.41% of the managers moving from a Continuing exporter during the period. As one can notice, Continuing Exporter is the category with more managers leaving and joining followed by Other and Never exporter. This certainly reflects differences in the total number of managers working for a given category. Indeed, Table 4 shows that there are relatively few New and Exiting exporters.

In order to gather more valuable information from raw numbers, we construct the bottom entry reported in each cell. Imagine the following thought experiment. In each transition between year $t - 1$ and t an exogenous number of managers leaves firms belonging to a given trade status to join another firm. The assignment of the managers moving to a new employer is based on a simple probability model that mimics randomness. In particular, the probability of joining in t a firm belonging to the (for example) Exiting exporters category equals the share of managers employed by all firms

¹⁵In all cases, the worker is a manager in the firm where he is employed in t but not necessarily in the previous (in $t - 1$) employer.

that are Exiting exporters in $t - 1$. If this is the process governing the transition of managers across firms, then the third entry we constructed should (by the law of large numbers) correspond to the conditional (on the share of managers employed in $t - 1$ by firms belonging to the destination category) probability, i.e. 20% across all trade status. As the reader may appreciate, results indicate that the mobility of managers across firm trade-status categories is far from such randomness. New Exporters are very much likely to receive managers from Continuing and Other exporters. On the other hand, Continuing exporters are more likely to hire managers from New or Exiting exporters while managers leaving an exiting exporter are very much likely to end up in an Other exporters. The apparently non-random transition of managers across firm with different trade status categories may be induced by some worker and/or firm observables characteristics like firm age and productivity, or worker education and skill. This would not be an issue in a simple regression analysis framework with many observables like the one we develop in Section 4. However, it might also be the case that the matching of firms and workers depends upon some unobservables that are correlated with firm trade status so raising a problem of endogeneity. We will come back to this issue in Section 5.

All in all, the presence and job transition of managers with export experience seem to be more pervasive across export-involved firms though the pattern seems to be group-specific. However, this evidence is far from implying a causal relationship between export experience, trade status, and job mobility. Managers with export experience can, for example, be found disproportionately in export-active firms because of labor market networks involving such firms. Due to export activity, firms (and their managers) can in fact get to know each other quite well thereby easing the likelihood of cross-hiring within the group. We investigate those issues further in Section 5.

4. Wage analysis

A first step in the quest of a causal relationship between the export experience brought by managers into a firm and its trade status is to assess whether such an experience is valued by trade-involved firms. A positive finding can, though other explanations would still be plausible, be interpreted as a consequence of a causal relationship.

To achieve this goal, we estimate a Mincerian wage equation and test both whether there is evidence of an export experience premium and whether such premium is related to the degree of involvement of a firm into the export activity. Arguably, the premium should reflect the expected increase in the stream of profits induced by the managers having export experience and therefore vary according to the export performances and/or ambitions of a firm.

A related question that we also address is whether export experience is valuable only when the worker is a manager or rather if a premium exists also for non-managers. The existence of a premium for non-managers would be, for example, consistent with the presence of some sort of knowledge valuable to the exporting activity brought into the firm by blue and/or white collars. The existence of a premium for managers *only* would instead be in line with our idea that managers are special when it comes down to exporting because of both the complexity of the tasks involved in their job and the special nature of some of the activities (like marketing and commercialization) they are responsible for.

4.1 Estimating equation

We index workers by i , firms by f and time by t . The baseline wage regression we estimate is given by:

$$\begin{aligned}
w_{it} = & \alpha + \beta_1 Age_{it} + \beta_2 Age_{it}^2 + \beta_3 Edu_{it} + \beta_4 Ten_{it} + \beta_5 Manag_{it} \\
& + \beta_6 Blue_c_{it} + \beta_7 Other_c_{it} + \beta_8 Epr_{it} + \beta_9 Loc_{ft} + Ind_{ft} + TS_{ft} + \mathbf{fc}'_{ft} \\
& + \eta_1 Manag_{it} \times Epr_{it} + \eta_2 Manag_{it} \times TS_{ft} + \eta_3 TS_{ft} \times Epr_{it} + \eta_4 Manag_{it} \times TS_{ft} \times Epr_{it} \\
& + c_i + \delta_t + \varepsilon_{it}.
\end{aligned} \tag{1}$$

w_{it} is the log hourly wage of worker i in year t , while Age_{it} and Age_{it}^2 denote, respectively, the age and age squared of a worker. Edu_{it} corresponds to the number of years of education and Ten_{it} is the number of years a worker has spent in the current firm since hiring (tenure). $Manag_{it}$, $Blue_c_{it}$ and $Other_c_{it}$ are dummies indicating the job qualification of a worker (respectively manager, blue collar, and other collar) with white collar being the excluded category. Loc_{ft} stands for a battery of NUTS-3 region dummies corresponding to the location of firm f , while Ind_{ft} denotes a full set of dummies for the industry (Nace rev.1 2-digits) to which firm f belongs. \mathbf{fc}'_{ft} is instead a vector of firm-time variables: (i) firm size (log of employment); (ii) firm apparent labor productivity (log of sales per employee); (iii) firm age (log); (iv) mean and standard deviation of both age and education of firm f managers; (v) a foreign ownership dummy.¹⁶ Epr_{it} and TS_{ft} denote, respectively, a dummy for whether worker i has export experience at time t , as defined in Section 3.1, or not and a set of dummies for firm f trade status category at time t , as defined in Section 3.1, with Never exporters being the excluded category. Equation (1) also contains all possible interactions (with an η coefficient in front) between $Manag_{it}$,

¹⁶Martins (2010) shows that foreign-owned Portuguese firms pay their workers more than other firms. This pay increase is consistent both with a 'wage policy effect' (greater 'generosity' in the remuneration practices of foreign firms vis-à-vis their domestic counterparts) and a 'selection effect' (foreign firms hire workers that are, on average, already better remunerated in their domestic firms than 'similar' workers).

Epr_{it} , and TS_{ft} . Finally, c_i are worker fixed effects, δ_t indicates time dummies, and ε_{it} is a wage shock that we assume to be uncorrelated with the covariates.

We use the standard within estimator to estimate the parameters of equation (1) while clustering standard errors at the worker level. As we consider two alternative definitions of export experience (regular and strong), we perform one estimation for each of the two definitions. As a robustness check, we also estimate a variant of (1) with "worker-firm trade status" fixed effects ($c_i \times TS_{ft}$) thereby allowing the value of the relationship to be match-specific by accounting for heterogeneity (across firm trade status) of the return on unobserved time-invariant worker characteristics. Fixed effects $c_i \times TS_{ft}$ are identified by workers changing firms with different trade status as well as by workers remaining into a firm that changes trade status.

For our parameters to have a causal interpretation, i.e. being representative of the whole population of possible worker-firm matches, we are implicitly imposing the condition that matching is random conditional on covariates. Though restrictive, our hypothesis is made somewhat less strong by the fact that we make use of a large battery of firm and worker observables, as well as, either worker fixed effects (c_i) or match-specific "worker-firm trade status" fixed effects ($c_i \times TS_{ft}$).¹⁷

4.2 Results

Table 19 in the Tables Appendix reports the estimated coefficients and worker-level clustered standard errors of the key covariates in our analysis ($Manag_{it}$, Epr_{it} , TS_{ft} , and their interactions) for the 1997-2004 manufacturing firms sample whose construction is described in Section 2.¹⁸ Table 20 in the Tables Appendix contains the remaining controls. The questions we are interested in cannot be directly answered by looking at estimates but need testing some linear hypotheses. Tables 8 and 9 display the implied export experience premia, test statistics, and p-values obtained with worker-level clustering. For completeness, we also report in Tables 21 and 22 in the Tables Appendix results obtained with robust standard errors only.

Table 8 is about testing whether there is an export experience premium for non-managers depending on the firm trade status category. The null hypothesis (H_0) is that there is no premium. Such hypothesis translates into (for example) $\beta_8 = 0$ for Never exporters and $\beta_8 + \gamma_{New} = 0$ for New exporters where γ_{New} is the coefficient of the interaction between the New exporter trade status and worker export experience. Symmetrically, Table 9 tests whether there is an export experience premium for managers

¹⁷Bandiera, Guiso, Prat and Sadun (2009) provide an example of how controlling for managerial ability is important. They find that more talented top executives are matched with larger firms and the level of managerial pay is increasing in firm size.

¹⁸Results for firms outside manufacturing are available upon request.

depending on TS_{ft} . The H_0 is again that there is no premium. Such hypothesis translates into (for example) $\beta_8 + \eta_1 = 0$ for Never exporters and $\beta_8 + \eta_1 + \gamma_{New} + \zeta_{New} = 0$ for New exporters where ζ_{New} is the coefficient of the interaction between the New exporter trade status, worker export experience, and the manager dummy. The Table further provides information on whether the experience premium for managers in trade involved firms (New, Continuing, Exiting, Other) is significantly different from the equivalent premium for Never exporters.

Insert Tables 8 and 9 about here.

We are interested in answering the following three questions.

Question 1: Does export experience pay for a non-manager? Overall, results in Table 8 do not provide any strong evidence in favor of the existence of an export experience premium for non-managers. In 9 out of 20 cases the premium is not significant. The premium is actually negative and significant, though rather small, in some specifications for Continuing, Exiting and Never exporters while being sometimes positive and significant for New exporters and Other exporters.

Question 2: Does export experience pay for a manager? Table 9 reveals that experience does pay if the worker is a manager. This is true across all firm trade status categories (including Never exporters) whenever we use worker fixed effects. However, when using "worker-firm trade status" fixed effects we find that experience pays only in Continuing exporters and Other exporters. As mentioned above, in the case of Never exporters, part of the wage premium associated to the manager's export experience in the regressions with workers' fixed effect could indeed be driven by workers' unobserved and time-invariant characteristics that are more valued by non-trading firms and are positively correlated with the acquisition of export experience. Whenever significant, the magnitude of the coefficient (measured in log wage points) is sizeable and suggests that experience is worth a 6% to 9% higher wage depending on the firm type. This is a rather large figure when compared to the "pure" manager premium of about 2.5% to 4% (with respect to white collars) coming out from the wage equation estimations in Table 19 in the Tables Appendix.

Question 3: Does export experience for managers pay more in trade-involved firms? Table 9 reveals, by looking at the * superscripts, that a clear pattern only emerges in the case of "worker-firm trade status" fixed effects. When we allow the return to unobserved ability to be match-specific, Continuing exporters and Other exporters pay export experience significantly more than Never exporters. The difference is also positive and of similar magnitude for New exporters but it is not significant. Curiously, Exiting exporters pay export experience significantly more whenever we use simple worker fixed effects.

Overall, we find that the (for us) observable export experience is related to a worker's wage with the magnitude being rather large. Contrary to what implicitly assumed in Muendler and Molina (2009), our evidence suggests that it is not the experience of all workers which is valuable to the exporting activity of a firm but only the experience brought in by managers. Furthermore, our findings point (in some cases) to the existence of a larger experience premia for managers in trade-involved firms with respect to Never exporters which suggests that such an experience is more valuable for the former. Overall, this picture is in line with the idea that managers do have a positive causal impact on firms' trade performance, this impact translates into an increase in the expected stream of profits and is reflected in higher wages. However, it might still be the case that this premium is related to the manager contributing to profitability margins other than pure trading activities like innovation, management of human resources, etc. Indeed, the fact that the premium is in some specifications positive also for Never exporters and/or not statistically different between the latter and export-involved firms suggests that managers with export experience are by some measure "better" in dimensions that go beyond the export activity.

4.3 Back of the envelope calculations?

We might think of doing some back of the envelope calculations to put a figure on the value of export experience based on the wage, the wage premium, the number of managers with export experience in the firm, their working hours, and the value of exports (difference in the wage bill due to the premium over exports). We might also want to look at the distribution of this stuff.

5. Trade status analysis

Assessing that a sizeable wage premium is paid to managers with export experience and that such a premium is higher in trade-involved firms is only indirect evidence of a causal impact of managerial experience on trade performance. The aim of this Section is therefore to provide more substantive evidence of such a causality. To this end, we model a firm's trade status and its evolution over time as a function of a large battery of time-varying control as well as of the share of current managers in the firm that have export experience. We describe the econometric model in Section 5.1 while presenting estimation results in Section 5.2. In particular, results in Section 5.2.1 have been obtained using the information on all managers with export experience while results in Section 5.2.2 concern only displaced managers with export experience. In the latter, we thus use

plant closure and job displacement, as defined in Section 3.1, as an exogenous source of variation in the data to tackle the complex endogeneity issues involved in our analysis.

5.1 *Econometric Model*

In what follows we focus on four (out of five) of the finely defined trade status categories described in Section 3.1, namely: Never exporters, New exporters, Continuing Exporters, and Exiting exporters. In terms of trade records, New and Never exporters share at time t the same history: no exports in both $t - 1$ and $t - 2$. However, at date t their paths suddenly diverge with New exporters starting to export, and keep exporting in $t+1$, while Never exporters remain purely domestic firms. At the other extreme lie Continuing and Exiting exporters. As in the previous case, both types of firm have the same trade history but their present and future ($t + 1$) participation to the export market follows different directions. While Continuing exporters keep their presence in foreign markets in (at least) the next two years, Exiting exporters stop selling abroad in t and maintain their stand in $t + 1$ as well.

We exploit these switches in order to identify the impact of export experience hold by managers on a firm likelihood to start or quit exporting. In particular we estimate a pooled logit model.¹⁹ In the first part of the analysis, we focus on export entry and compare New and Never exporters. In the subsequent analysis we turn to export exit and compare Exiting and Continuing exporters. Our binary variable y_{ft} , indicating firm f trade status at time t , is equal to zero for Never (Continuing) exporters and equal to one for New (Exiting) exporters. Our approach follows the logic developed in the dynamic model of exporting behavior of Roberts and Tybout (1997), and further applied in Bernard and Jensen (2004), that sunk costs of entry into the export activity create path-dependency. Therefore, any attempt to establish a causal impact on trade status must condition for the firm past trade status; the latter reflecting the option value of sunk costs.²⁰ Our specification is slightly more general as we allow managerial experience (as well as other covariates) to have a differential impact on entry and exit from the export activity. Furthermore, as we are interested in an "informed/successful/structured" decision to export, as opposed to a "random/occasional" presence in export markets, our

¹⁹Results of the alternative probit specification are qualitatively identical and are available upon request.

²⁰See Irarrazabal and Opromolla (2008) for a general equilibrium model of trade with heterogeneous firms that shows how firm idiosyncratic productivity shocks and export sunk costs imply hysteresis in export status.

trade status categories are based on the 2+2 years time frame described in Section 3.1.²¹

The baseline logit model that we estimate is given by:

$$y_{ft}^* = \alpha + \beta_1 Share_{ft} + \beta_2 I(Share_{ft} > 0) + \beta_3 Size_{ft} + \beta_4 Prod_{ft} + \mathbf{ft} + \mathbf{eft} + \delta_t + \varepsilon_{ft} \quad (2)$$

where the observable binary variable $y_{ft} = 1$ if $y_{ft}^* \geq 0$. Besides time dummies δ_t , the set of covariates includes:

1. Our key variable $Share_{ft}$ which is the number of managers with export experience (acquired outside the firm) in firm f at time t divided by the total number of managers. If a firm has no manager with export experience $Share_{ft}$ is equal to zero. $I(Share_{ft} > 0)$ is instead an indicator variable equal to one if $Share_{ft} > 0$. We introduce this categorical variable along with $Share_{ft}$ to investigate whether there is evidence of a discrete impact of managerial experience on trade status.
2. $Size_{ft}$ and $Prod_{ft}$ denote firm f size (log of employment) and apparent labor productivity (log of sales per employee) at time t . As shown in Bernard and Jensen (1999) and Melitz (2003) firm size, and especially productivity, has a causal impact on export participation and should certainly be taken into account in our analysis.
3. \mathbf{ft} indicates a battery of firm-time controls: (i) three hiring variables corresponding to the fraction of current managers entering the firm either in t , or in $t - 1$, or in $t - 2$. The goal of these covariates is to broadly account for differences in the recent hiring dynamics across firms; (ii) the firm-level mean and standard deviation of managers' age and education as well as the firm-level mean and standard deviation of managers' (with and without experience) fixed effects, as a measure of skill, coming from the estimation of (1). Inspired by Iranzo, Schivardi and Tosetti (2008), these variables capture the age, education, and skill structure of managers within the firm, which is likely to affect firm productivity and ultimately export status; (iii) a foreign ownership dummy. This is an important control as it is well known that multinationals are more involved into trade; (iv) firm age, which broadly accounts for the firm past success; (v) a full set of Nace rev.1 2-digits dummies.

²¹We believe that controlling for export status in the preceding two years, besides allowing for a sufficiently large sample, is enough for accounting for the firm trade history. In Bernard and Jensen (2004) main specifications, the magnitude of the coefficient of "Last exported two years ago" is significant though being between 30 and 40 percent the magnitude of the coefficient "Exported last year". Moreover, Roberts and Tybout (1997) find that "...last year's exporting status $Y_{i,t-1}$ has a strong positive effect on the probability of exporting this year. But plants that last exported two or three years ago enjoy only small lingering effects from their previous investments in foreign-market access." and conclude that "...our choice of a three-year lag structure appears to be more than adequate to capture all of the relevant history."

4. **eft** represents a further attempt to control for managers' observables and in particular for those who have export experience: (i) firm-level mean and standard deviation of *experienced* managers' age and education; (ii) mean and standard deviation of *experienced* managers' fixed effects coming from the estimation of (1).

We make use of worker (c_i) and "worker-firm trade status" ($c_i \times TS_{ft}$) fixed effects needed in the construction of some covariates in separate estimations. Furthermore, as we deal with two definitions of export experience (regular and strong), we provide results for both.

In another specification, we also investigate whether the share of managers with export experience is more or less valuable depending on firm size and productivity. This is a relevant theory and policy issue in the debate of firm heterogeneity and trade. To this end, we estimate an augmented version of (2) by adding two interaction terms: $Share_{ft} \times Size_{ft}$ and $Share_{ft} \times Prod_{ft}$.

We also consider a variant of (2) in which we allow for a more flexible relationship between trade status and the share of managers with export experience. To this end, we consider in (2), instead of $Share_{ft}$ and $I(Share_{ft} > 0)$, a set of four indicator variables corresponding to the quartiles of the distribution of the positive values of $Share_{ft}$ across all firms in our sample: the first, second, third, and fourth quartiles being 0.16, 0.33, 0.89, and 1 respectively.

Finally, in order to gain insight on the timing of events, we also look at the time profile of the arrival of managers with export experience. In particular we consider managers arriving in t , $t - 1$, $t - 2$, or before.²² More precisely we estimate the following logit model:

$$y_{ft}^* = \alpha + \beta_1 Share_{ft}^t + \beta_2 Share_{ft}^{t-1} + \beta_3 Share_{ft}^{t-2} + \beta_4 Share_{ft}^{<t-2} + \beta_5 I(Share_{ft}^t > 0) + \beta_6 I(Share_{ft}^{t-1} > 0) + \beta_7 I(Share_{ft}^{t-2} > 0) + \beta_8 I(Share_{ft}^{<t-2} > 0) + \beta_9 Size_{ft} + \beta_{10} Prod_{ft} + \mathbf{ft} + \mathbf{eft} + \delta_t + \varepsilon_{ft}$$

where, for example, $Share_{ft}^{t-1}$ is the number of managers with export experience in firm f at time t that have been hired in $t - 1$ divided by the total number of managers in t ; and $I(Share_{ft}^{<t-2} > 0)$ is an indicator variable, whose purpose is to capture discrete effects as in (2), indicating whether the share of managers with export experience that have been hired before $t - 2$ ($Share_{ft}^{<t-2}$) is positive or not.

All right hand side variables (except dummies) have been divided by their respective standard deviation in order to provide a comparable metric. We cluster standard errors

²²In some cases we are not able to precisely identify the year of entry of a manager observed in t . In this situation we classify the managers as having arrived before $t-2$.

at the firm-level and report marginal effects along with the unconditional probability of $y_{ft} = 1$. A marginal effect of, for example, $Size_{ft}$ of 0.0x indicates that a one standard deviation increase in firm size roughly increases the probability of being a New exporter by x%. Marginal effects are thus comparable, in term of how much variation in probability is induced, across covariates and specifications within a given comparison pair (e.g. Exiting vs Continuing) and, by means of the unconditional probability, also between the two comparison pairs.

5.2 Results

In the next Section we deal with all managers with export experience while in the subsequent one we focus on the subset that have been displaced due to firm closure.

5.2.1 All managers

New vs Never exporters

Columns 1 and 4 of Table 10 reports the results of our baseline New vs Never exporters specification for, respectively, regular and strong export experience, while columns 1 and 4 of Table 11 reports the results of our baseline specification in the case in which we consider "worker-firm trade status" fixed effects (aggregated at the firm-level) as controls for managers' skill.

The sign, magnitude, and significance of the share of managers with export experience variable indicate, when considering that the unconditional probability of being a New exporter $y_{ft} = 1$ equals 0.038, that the effect we are capturing is sizeable. A one standard deviation increase in $Share_{ft}$ increases the likelihood of start exporting by 0.004 to 0.006 probability units corresponds to about 11 to 16% more chances to be a New exporter. Such magnitude is comparable to the one of firm productivity while firm size is still twice as important. Size and productivity have been widely shown to have a sizeable (and causal) impact on export status and our results confirms previous findings. What our results add to existing literature on trade and heterogeneous firms is that the transmission of export *savoir faire* via the mobility of managers is as important as firm productivity in explaining entry into the export activity.

Insert Tables 10 and 11 about here.

In columns 2 and 5 of Tables 10 and 11 we report the results obtained using the four indicator variables corresponding to the quartiles of the distribution of the positive values of $Share_{ft}$. Although lacking in precision due to the high value of clustered standard errors, results suggest that effect of export experience is extremely strong (two to three times the coefficient of size) when is above the 3rd quartile, i.e when more than 89% of

the managers has export experience. Columns 3 and 6 of Tables 10 and 11, where we interact the share of experience managers with size and productivity, further indicate that export experience is more valuable in firms with low productivity. The negative interaction coefficient with productivity is in fact significant in 3 out of 4 cases while the negative interaction coefficient with size is significant only in one case. These results are important in the policy debate on export promotion because, to the extent that our measure of export *savoir faire* captures foreign market knowledge like sales, marketing and commercialization, they suggest that low-productivity firms can disproportionately gain from support received along these dimensions. Finally, columns 4 and 8 of Tables 10 and 11 point to a very stable time pattern. The value of export experience for becoming an exporter does not depend upon the date where the manager has joined the firm within a 2 years interval. Though, experience coming from managers joining the firm before $t - 2$ seems somewhat less relevant in both magnitude and significance.

As for other control variables, Tables 23 and 24 in the Tables Appendix report the estimated coefficients and standard errors. Inspection of such Tables reveals that control variables are in line with a priori. The positive signs and significance of the hiring variables indicates that New exporters are quite active on the labor market compared to Never exporters and is therefore important to use these controls. Interestingly, activity on the labor market by New exporters seems to be particularly strong for hiring occurring in t and $t - 1$. Firm age has a consistently negative and significant sign across specifications while the foreign ownership dummy is, as expected, always positive and significant. Overall, the variables measuring the average and dispersion of the age, education and skill of *all* managers capture some interesting patterns in the data. The average age, education and skill of managers positively contribute to distinguish New from Never exporters. As for dispersion measures, managers' age seems to be most important with a larger standard deviation in age being associated with a higher probability of being a New exporter. Finally, the set of covariates measuring the average and dispersion of the age, education and skill of *experienced* managers are widely not significant.

Exiting vs Continuing exporters

Columns 1 and 4 of Table 12 reports the results of our baseline Exiting vs Continuing exporters specification for, respectively, regular and strong export experience, while columns 1 and 4 of Table 13 reports the results of our baseline specification in the case in which we consider "worker-firm trade status" fixed effects (aggregated at the firm level) as controls for managers' skill. The unconditional probability to quit exporting $y_{ft} = 1$ equals 0.039 meaning that roughly 4% of firms with a past record of two years of continuous exports exit from foreign markets in both the current and subsequent year.

Insert Tables 12 and 13 about here.

Firm size and productivity play (as in the case of entry into the export activity) a major role also in understanding the failure of firms to keep exporting. Big and more productive firms are more likely to have a successful path with, for example, the magnitude of productivity implying that a one standard deviation increase in productivity reduces the probability of exiting by 25%. As for export experience results are rather different from the entry case. Although the sign of the coefficients would suggest that export experience has a positive impact on the probability to keep exporting, standard errors indicate that such pattern is never significant. This non-result extends to the quartile dummies analysis in columns 2 and 6 as well as to interaction terms in columns 3 and 7. The message conveyed by our estimations is thus that export experience acquired by managers from previous employers has no substantial impact on the chances of firms that already have an export record. Indeed, these firms have managers that have developed export experience within the firm with its past export activity and our findings suggest that internal and external experience do not complement each other. Having said that, a noticeable exception in our Tables comes from columns 4 and 8. The share of managers with export experience (acquired outside the firm) entering in $t - 1$ is indeed negative and strongly significant in all four cases. Though the magnitude is somewhat small when compared to size and productivity, it suggests that the influx of export experience from managers' hiring has a break one year before a firm stops exporting. We will explore this issue further in the next Section.

As for the other control variables, Tables 25 and 26 in the Tables Appendix report the estimated coefficients and standard errors. Inspection of such Tables reveals that control variables are in line with a priori and in particular both foreign ownership and the average skill of managers increasing the likelihood of being a Continuing exporter.

5.2.2 *Displaced managers only*

In the previous Section we dealt with endogeneity, and in particular with unobservables potentially correlated with the share of experienced managers, by making use of a large battery of both firm and firm-level aggregated managers' characteristics. In some specifications we also used the information coming from "worker-firm trade status" fixed effects thereby accounting for match-specific time-invariant unobservables. However, we acknowledge that there are still three issues that could bias our results: (i) other omitted variables; (ii) the timing of events; (iii) simultaneity. We deal with these problems by using firm closure and displaced workers as in Dustmann and Meghir (2005). The intuition is simple: as long as firm closure is exogenous then workers (and so managers) that have been displaced represent a random sample of the workforce that is exogenously assigned to new employers and jobs. To make our argument stronger, we actually

consider only the first job after displacement because subsequent jobs might become again endogenous to what we want to measure.

The first endogeneity issue we face is that there could be some unobservable firm characteristics that affect trade status and are correlated with the entry of managers with export experience. Considering, for example, the comparison of New and Never we do not have an observable measure of variables like R&D expenditure, product, process and IT innovation that are likely to affect the export participation of a firm.²³ Although we do control for the two key variables that are believed to have a causal impact on trade participation (size and productivity), the fact that we cannot control for other dimensions of the competitiveness of the firms and/or for the amount of effort put in place by a firm to become an exporter might induce a spurious correlation with export experience. Although the evidence coming from the wage analysis does indicate that trade involved firms pay for managers' export experience, this might be ultimately just due to such managers having some unobservable time-variant characteristics which are not valuable to the firm for her export activity conditional on *all* those firms' fundamentals that truly cause export participation. For example, managers with export experience might be very good in dealing with product and/or process innovation with innovation having a causal impact on export status while being not observable to us. The use of displaced workers provides a solution to this problem because their arrival into a firm is due to some other firm closing down and should therefore not be correlated with those firm unobservables that may induce endogeneity.

The second endogeneity problem is related to the timing of events. Considering again the comparison of New and Never, it seems at first glance crucial to define when the "preparation for exporting" begins, i.e. when the decision to try to become an exporter takes place. The extreme case is the one of a firm that puts in place a wide range of policies at some date $t-x$ to become an exporter in t while sticking to this decision no matter what happens between $t-x$ and t . The firm could then hire managers with export experience between $t-x$ and t only to make this process somehow smoother. In such a model a causal effect of managers' experience could be eventually identified only when the managers joined the firm as part of the firm's decision to export in $t-x$. We do not necessarily believe such a model is a good description of a choice like exporting under such a high degree of uncertainty and continuously available new information but we have to contemplate this possibility. Arguably, the time of arrival of displaced workers is random and so we can use the time breakdown of entry of displaced experienced managers to identify the length of x .

Finally, both in the previous extreme case and in a situation in which a firm contin-

²³Bustos (2010) and Lileeva and Trefler (2010) provide evidence of the relationship between innovation, productivity, trade liberalization, and trade status.

uously revises her decision to export based on the new available information we still face a problem of simultaneity. Both the entry of managers with export experience and other investments put in place by a firm can have a causal impact on export status but, being the outcome of a joint maximization process, it is hard to properly disentangle their respective contribution as a shock affecting the profitability of one margin has an impact on the optimal choice of all the others. To the extent that the entry of displaced managers is uncorrelated with such shocks we can trace back the causal impact of export experience.

New vs Never exporters

Key estimates of the comparison between New and Never exporters with displaced managers are contained in Tables 14 and 15. Tables 27, 28 in the Tables Appendix report the estimated coefficients and standard errors of the control variables. The unconditional probability of being a New exporter is the same as in the case of all experienced managers and equals 0.038.

Insert Tables 14 and 15 about here.

Insert Tables 16 and 17 about here.

Coefficients in columns 1 and 4 confirm the primary role of firm size and productivity along with the sizeable causal impact of the share of managers with export experience. The magnitude of the $Share_{ft}$ coefficient is somewhat smaller than in the case of all managers, which is in line with the existence of a positive correlation with firm unobservables and/or shocks on the return to exporting influencing investments decisions. Columns 2 and 5 show the coefficients of the dummies corresponding to the quartiles of the distribution of the positive values of $Share_{ft}$ and, although imprecisely estimated, point again towards a disproportional importance of the fourth quartile. The negative interaction with productivity result is not significant anymore while the interaction with size is sometimes negative and significant as in the case of all experienced managers. This suggests that previous results might have been, in part, driven by firm size and productivity being correlated with such unobservables and/or shocks. Finally, as far the time breakdown of displaced managers with export experience arrival is concerned, we now find that experience does not matter if it “enters” the firm before t-2. Depending on the specification, either t-1 or t-2 seems to be the relevant date.

Exiting vs Continuing exporters

Results on Exiting vs Continuing exporters are reported in Tables 16 and 17. Tables 29 and 30 in the Tables Appendix provide further estimates for the control variables. The unconditional probability of being an Exiting exporter is the same as in the case of all experienced managers and equals 0.039.

Estimates strongly confirm the absence of any causal impact of (external) export experience on the likelihood to exit the export activity. Furthermore, the curious strong significance of the share of managers with experience entering in $t - 1$ is somewhat weakened suggesting that the former result was, in part, driven by the issue of the timing of events.

6. Conclusions

We construct a unique data set for Portugal by merging two sources. The first one is *Quadros de Pessoal*, a matched employer-employee data set covering the entire population of workers and widely used in the labor literature. The second is the universe of transaction-level firm-trade data coming from customs returns forms (extra-EU trade) and Intrastat forms (intra-EU trade). Our data set provides us with the means to draw a sharp portrait of the workers' (and especially managers') export experience and its flow across firms with different trade status.

Using a Mincerian wage regression we first provide evidence that that the (for us) observable export experience is related to a worker's wage with the magnitude being rather large. Our evidence suggests that it is not the experience of all workers which is valuable to the exporting activity of a firm but only the experience brought in by managers. Furthermore, our findings point (in some cases) to the existence of a larger experience premium for managers in trade-involved firms with respect to non-exporters which suggests that such an experience is more valuable for the former. Overall, this picture is in line with the idea that managers do have a positive causal impact on firms' trade performance, this impact translates into an increase in the expected stream of profits and is reflected in higher wages.

In order to provide more substantive evidence of such a causality, we model a firm's trade status and its evolution over time as a function of a large battery of time-varying control as well as of the share of current managers in the firm that have export experience. Moreover, following Roberts and Tybout (1997), we condition for the firm past trade status, the latter reflecting the option value of sunk entry costs. Our estimations indicate that a one standard deviation increase in the firm's share of managers' with export experience corresponds to about 11-16% more chances of starting to export. The impact is particularly strong for less productive firms, for hiring occurring in the two years preceding export entry and is roughly of the same order of magnitude of the positive firm productivity effect. On the contrary, export experience acquired by managers from previous employers has no substantial impact on firms' decisions to keep exporting.

We further corroborate the causality argument by using firm closure and displaced workers as in Dustmann and Meghir (2005). The intuition is simple: as long as firm

closure is exogenous then workers (and so managers) that have been displaced represent a random sample of the workforce that is exogenously assigned to new employers and jobs. To make our argument stronger, we actually consider only the first job after displacement because subsequent jobs might become again endogenous to what we want to measure. Estimations based on displaced managers broadly confirms former results while dampening magnitudes.

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Table 1: Summary Statistics, Wage Regressions, 2004 (from 1997-2004 Sample)

Variable	Mean	Std. Dev.	Median	Min.	Max.	N
<i>Worker-level</i>						
Export Experience (0/1)	0.178	0.383	0	0	1	386,913
Strong Export Experience (0/1)	0.143	0.35	0	0	1	386,913
Hourly Wage (log)	1.373	0.521	1.244	0.731	3.413	386,913
Age (Years)	38.417	10.651	38	16	65	386,913
Education (Years)	7.448	3.661	6	0	16	386,913
Tenure (Years)	10.473	9.541	7	0	52	386,913
Manager (0/1)	0.151	0.358	0	0	1	386,913
White Collar (0/1)	0.061	0.24	0	0	1	386,913
Blue Collar (0/1)	0.738	0.44	1	0	1	386,913
Other Collar (0/1)	0.05	0.218	0	0	1	386,913
Manager w/ Export Exp. (0/1)	0.028	0.165	0	0	1	386,913
Manager w/ Str. Export Exp. (0/1)	0.023	0.15	0	0	1	386,913
<i>Firm-level</i>						
New Exporter (0/1)	0.023	0.151	0	0	1	12,403
Continuing Exporter (0/1)	0.252	0.434	0	0	1	12,403
Exiting Exporter (0/1)	0.011	0.106	0	0	1	12,403
Never Exporter (0/1)	0.577	0.494	1	0	1	12,403
Other Exporter (0/1)	0.137	0.344	0	0	1	12,403
Firm Size (log)	2.917	1.235	2.89	0	8.266	12,403
Apparent Labor Productivity (log)	10.604	0.985	10.569	6.11	16.341	12,403
Firm Age (log)	2.574	0.845	2.708	0	5.517	12,403
Foreign Ownership (0/1)	0.049	0.217	0	0	1	12,403
Managers' Age (Avg., Years)	42.25	8.491	42	19	65	12,403
Managers' Age (Std. Dev., Years)	4.326	5.136	2.121	0	31.82	12,403
Managers' Education (Avg., Years)	8.766	3.617	9	0	16	12,403
Managers' Education (Std. Dev., Years)	1.664	2.181	0	0	11.314	12,403

Notes: This table shows summary statistics of worker-level and firm-level variables from the wage regressions sample of Section 4. Variable names followed by "(0/1)" refer to dummy variables. In the last column, "N" refers to the number of workers for worker-level variables, and to the number of firms for firm-level variables.

Table 2: Number of Workers, by Export Experience, Displacement Status, and Year, 1997-2004

Year	Workers	With Export Experience	With Strong Export Exp.	Displaced With Export Exp.	Displaced with Strong Export Exp.
1997	452,430	14,734	11,062	1,741	1,020
1998	446,341	24,596	19,201	2,908	1,875
1999	448,887	37,124	29,068	4,788	3,148
2000	437,064	49,441	39,497	7,847	5,453
2002	350,487	54,189	43,989	9,234	6,718
2003	373,432	61,981	50,272	10,362	7,413
2004	386,913	69,004	55,386	12,056	8,654

Notes: This table shows summary statistics of worker-level variables from the sample used in the wage regressions of Section 4 See Section 3.1 for definitions of "Managers", "Export experience", "Strong export experience", and displacement status.

Table 3: Number of Managers, by Export Experience, Displacement Status, and Year, 1997-2004

Year	Managers	With Export Experience	With Strong Export Exp.	Displaced With Export Exp.	Displaced with Strong Export Exp.
1997	48,354	2,085	1,530	122	74
1998	50,981	3,451	2,767	225	158
1999	50,366	4,879	3,918	416	299
2000	51,278	6,608	5,456	701	513
2002	48,629	8,456	7,079	950	749
2003	54,921	9,860	8,201	1,193	910
2004	58,303	10,825	8,965	1,352	1,026

Notes: This table shows summary statistics of worker-level variables from the sample used in the wage regressions of Section 4. See Section 3.1 for definitions of "Managers", "Export experience", "Strong export experience", and displacement status.

Table 4: Number of Firms, by Trade Status and Year, 1997-2004

Year	All Firms	New Exporter	Continuing Exporter	Exiting Exporter	Other Exporter	Never Exporter
1997	8,029	159	2,653	97	1,253	3,867
1998	8,125	158	2,652	82	1,188	4,045
1999	8,459	141	2,781	121	1,249	4,167
2000	8,860	179	2,867	108	1,315	4,391
2002	8,759	196	2,644	110	1,290	4,519
2003	11,067	214	2,955	145	1,652	6,101
2004	12,403	290	3,120	141	1,699	7,153

Notes: This table shows summary statistics of firm-level variables from the sample used in the trade status regressions of Section 5 See Section 3.1 for definitions of firms' trade status.

Table 5: Summary Statistics on the Distribution of Managers with Export Experience and Recent Hiring, 2004 (from 1997-2004 sample)

Variable	Mean	Std. Dev.	Median	Min.	Max.	N
Manag. w/ Export Exp. (0/1)	0.26	0.439	0	0	1	12,403
Manag. w/ Str. Export Exp. (0/1)	0.207	0.405	0	0	1	12,403
Manag. w/ Export Exp. (Share)	0.131	0.281	0	0	1	12,403
Manag. w/ Str. Export Exp. (Share)	0.096	0.244	0	0	1	12,403
Manag. w/ Export Exp., Quart.1 (0/1)	0.055	0.227	0	0	1	12,403
Manag. w/ Export Exp., Quart.2 (0/1)	0.066	0.248	0	0	1	12,403
Manag. w/ Export Exp., Quart.3 (0/1)	0.072	0.259	0	0	1	12,403
Manag. w/ Export Exp., Quart.4 (0/1)	0.068	0.251	0	0	1	12,403
Manag. w/ Str. Export Exp., Quart.1 (0/1)	0.039	0.194	0	0	1	12,403
Manag. w/ Str. Export Exp., Quart.2 (0/1)	0.069	0.253	0	0	1	12,403
Manag. w/ Str. Export Exp., Quart.3 (0/1)	0.045	0.208	0	0	1	12,403
Manag. w/ Str. Export Exp., Quart.4 (0/1)	0.054	0.226	0	0	1	12,403
Managers Hired in t (Share)	0.059	0.197	0	0	1	12,403
Managers Hired in t-1 (Share)	0.073	0.224	0	0	1	12,403
Managers Hired in t-2 (Share)	0.085	0.245	0	0	1	12,403

Notes: This table shows summary statistics of firm-aggregated worker-level variables from the sample used in the trade status regressions of Section 5. Variable names followed by "(0/1)" refer to dummy variables. Variables whose name is followed by "Share" are computed with respect to the current stock of managers in the firm. "Quart.1" and similar refer to the quartiles of the distribution of the firm-level share of managers with export experience across all firms. In the last column, "N" refers to the number of firms.

Table 6: Share of Firms with Managers with Export Experience, by Trade Status and Share Quartile, 2004 (from 1997-2004 sample)

	Positive	1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
New Exporter	0.158	0.085	0.205	0.288	0.422
Cont. Exporter	0.397	0.113	0.183	0.322	0.383
Exit. Exporter	0.458	0.338	0.295	0.251	0.116
Other Firm	0.326	0.196	0.217	0.348	0.239
Never Exporter	0.300	0.147	0.259	0.316	0.277
All Exporters	0.260	0.212	0.254	0.277	0.262

Notes: This table shows summary statistics of firm-aggregated worker-level variables from the sample used in the trade status regressions of Section 5. The first column "Positive" shows, for each type of firm, the share of firms with at least one manager with export experience. The remaining columns show the breakdown of this share according to the quartiles of the distribution of the share of managers with export experience across all firms.

Table 7: Transition Matrix, Managers Changing Firm, Pooled 1997-2004 Sample

		Year t				
		New Exporter	Continuing Exporter	Exiting Exporter	Other Exporter	Never Exporter
Year $t - 1$	New Exporter	5	43	2	14	25
		5.62	48.31	2.25	15.73	28.09
		36.93	9.13	22.78	15.38	15.77
	Continuing Exporter	669	2,204	19	529	486
		17.12	56.41	0.49	13.54	12.44
		75.86	7.19	3.32	8.92	4.71
Exiting Exporter	0	40	0	27	21	
	0.00	45.45	0.00	30.68	23.86	
	0.00	16.52	0.00	57.71	25.77	
Other Exporter	202	659	6	404	176	
	13.96	45.54	0.41	27.92	12.16	
	66.16	6.21	3.03	19.68	4.92	
Never Exporter	60	485	15	185	545	
	4.65	37.60	1.16	14.34	42.25	
	35.06	8.15	13.52	16.08	27.20	

Notes: This table shows a one-year transition matrix constructed using the pooled 1997-2004 sample. Each cell in the matrix presents three measures of the flow of workers that change firm and, eventually, move to a firm with a different trade status from $t - 1$ ($t - 2$ if $t = 2002$) to t , where $t = 1998, 1999, 2000, 2002, 2003, 2004$. In all cases, the worker is a manager in the new firm (in t) but not necessarily in the old one (in $t - 1$). The top figure in each cell measures the absolute frequency, i.e. the number of workers; the intermediate figure measures the relative frequency within each row; the bottom figure measures the relative frequency within each row after weighting worker flows by the inverse of the share of managers associated to the trade status category (measured in $t - 1$) of the destination firm.

Table 8: Wage Regression: Hypotheses Testing on Non-managers

Firm type	Never Exporter	New Exporter	Continuing Exporter	Exiting Exporter	Other Exporter
Regular export experience					
Experience premia	0.010 ^a	0.003	-0.008 ^a	-0.005	0.000
F-Test Statistic value	16.48	1.47	32.37	1.70	0.01
P-value	0.000	0.226	0.000	0.1919	0.9171
Strong export experience					
Experience premia	0.004	0.010 ^a	-0.010 ^a	-0.008 ^b	-0.002
F-Test Statistic value	2.19	11.82	45.89	3.60	1.15
P-value	0.139	0.001	0.000	0.058	0.283
Regular export experience and worker-TS FE					
Experience premia	-0.004	0.029	-0.003 ^b	-0.033	0.010 ^b
F-Test Statistic value	0.12	1.27	3.94	0.81	5.64
P-value	0.73	0.259	0.047	0.368	0.018
Strong export experience and worker-TS FE					
Experience premia	-0.031 ^c	0.146 ^b	-0.005 ^a	-0.031	0.018 ^a
F-Test Statistic value	3.00	4.80	7.70	0.94	13.36
P-value	0.083	0.029	0.006	0.332	0.000

Notes: This table includes results from linear hypotheses tests based on the estimation of equation (1). The definition of "managers", regular and strong "export experience" and firms' export status categories are in Section 3.1. "worker-TS FE" stands for "worker-firm trade status" fixed effects. ^a, ^b, and ^c mean, respectively, that the experience premium is significantly different from zero at the 1, 5, and 10% confidence level. Test statistics and p-value are corrected for worker-level clustering.

Table 9: Wage Regression: Hypotheses Testing on Managers

Firm type	Never Exporter	New Exporter	Continuing Exporter	Exiting Exporter	Other Exporter
Regular export experience					
Experience premia	0.068 ^a	0.066 ^a	0.078 ^a	0.091 ^{a*}	0.068 ^a
F-Test Statistic value	87.09	93.09	524.00	85.69	218.31
P-value	0.000	0.000	0.000	0.000	0.000
Strong export experience					
Experience premia	0.064 ^a	0.067 ^a	0.073 ^a	0.087 ^{a*}	0.064 ^a
F-Test Statistic value	60.84	86.18	426.18	81.44	179.85
P-value	0.000	0.000	0.000	0.000	0.000
Regular export experience and worker-TS FE					
Experience premia	0.023	0.089	0.082 ^{a***}	0.032	0.068 ^{a**}
F-Test Statistic value	1.89	1.77	452.22	0.16	56.06
P-value	0.169	0.183	0.000	0.691	0.000
Strong export experience and worker-TS FE					
Experience premia	-0.007	0.092	0.079 ^{a***}	0.028	0.071 ^{a***}
F-Test Statistic value	0.10	1.33	400.14	0.01	53.51
P-value	0.749	0.248	0.000	0.915	0.000

Notes: This table includes results from linear hypotheses tests based on the estimation of equation (1). The definition of "managers", regular and strong "export experience" and firms' export status categories are in Section 3.1. "worker-TS FE" stands for "worker-firm trade status" fixed effects. ^a, ^b, and ^c mean, respectively, that the experience premium is significantly different from zero at the 1, 5, and 10% confidence level. ^{***}, ^{**}, and ^{*} mean, respectively, that the experience premia is significantly different from the one of Never exporters at the 1, 5, and 10% confidence level. Test statistics and p-value are corrected for worker-level clustering.

Table 10: Trade Status Regressions Core Covariates - New vs. Never, All Managers

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. w/Export Exp. (0/1) $I(Share_{ft} > 0)$	0.002 (0.011)		-0.004 (0.010)		-0.002 (0.011)		-0.006 (0.010)	
Manag. w/Export Exp. (Share) $Share_{ft}$	0.006 ^a (0.001)		0.020 ^a (0.006)		0.004 ^a (0.001)		0.016 ^a (0.006)	
Manag. w/Export Exp. Q1 (0/1)		-0.003 (0.010)				-0.011 (0.007)		
Manag. w/Export Exp. Q2 (0/1)		0.014 (0.016)				0.010 (0.016)		
Manag. w/Export Exp. Q3 (0/1)		0.026 (0.019)				0.015 (0.017)		
Manag. w/Export Exp. Q4 (0/1)		0.038 ^c (0.022)				0.023 (0.020)		
Export Exp. X Size $Share_{ft} \times Size_{ft}$			-0.003 ^c (0.002)				-0.003 (0.002)	
Export Exp. X Productivity $Share_{ft} \times Prod_{ft}$			-0.011 ^b (0.005)				-0.009 ^c (0.005)	
Manag. w/Export Exp. Hired in t (0/1) $I(Share_{ft}^t > 0)$				-0.004 (0.004)				-0.003 (0.005)
Manag. w/Export Exp. Hired in t-1 (0/1) $I(Share_{ft}^{t-1} > 0)$				-0.004 (0.004)				-0.005 (0.005)
Manag. w/Export Exp. Hired in t-2 (0/1) $I(Share_{ft}^{t-2} > 0)$				-0.003 (0.005)				-0.004 (0.005)
Manag. w/Export Exp. Hired bef. t-2 (0/1) $I(Share_{ft}^{<t-2} > 0)$				0.007 (0.006)				0.008 (0.008)
Manag. w/Export Exp. Hired in t (Share) $Share_{ft}^t$				0.003 ^a (0.001)				0.002 ^a (0.001)
Manag. w/Export Exp. Hired in t-1 (Share) $Share_{ft}^{t-1}$				0.004 ^a (0.001)				0.003 ^a (0.001)
Manag. w/Export Exp. Hired in t-2 (Share) $Share_{ft}^{t-2}$				0.003 ^a (0.001)				0.002 ^a (0.001)
Manag. w/Export Exp. Hired bef. t-2 (Share) $Share_{ft}^{<t-2}$				0.003 ^a (0.001)				0.001 (0.001)
Firm Size (log) $Size_{ft}$	0.015 ^a (0.001)	0.016 ^a (0.001)	0.016 ^a (0.001)	0.015 ^a (0.001)	0.016 ^a (0.001)	0.016 ^a (0.001)	0.016 ^a (0.001)	0.016 ^a (0.001)
App. Labor Productivity (log) $Prod_{ft}$	0.007 ^a (0.001)	0.007 ^a (0.001)	0.008 ^a (0.001)	0.007 ^a (0.001)	0.007 ^a (0.001)	0.007 ^a (0.001)	0.008 ^a (0.001)	0.007 ^a (0.001)
Observations	35,574	35,574	35,574	35,574	35,574	35,574	35,574	35,574
Pseudo R ²	0.0990	0.0995	0.0998	0.0995	0.0942	0.0956	0.0948	0.0947

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 11: Trade Status Regressions Core Covariates - New vs. Never, All Managers, Worker-TS Fixed Effects

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. w/Export Exp. (0/1) $I(Share_{ft} > 0)$	0.011 (0.014)		0.005 (0.012)		0.013 (0.016)		0.009 (0.015)	
Manag. w/Export Exp. (Share) $Share_{ft}$	0.005 ^a (0.001)		0.016 ^a (0.005)		0.004 ^a (0.001)		0.012 ^b (0.006)	
Manag. w/Export Exp. Q1 (0/1)		0.005 (0.013)				-0.001 (0.012)		
Manag. w/Export Exp. Q2 (0/1)		0.024 (0.019)				0.030 (0.023)		
Manag. w/Export Exp. Q3 (0/1)		0.039 ^c (0.023)				0.035 (0.025)		
Manag. w/Export Exp. Q4 (0/1)		0.051 ^b (0.026)				0.045 (0.028)		
Export Exp. X Size $Share_{ft} \times Size_{ft}$			-0.003 (0.002)				-0.003 (0.002)	
Export Exp. X Productivity $Share_{ft} \times Prod_{ft}$			-0.008 ^c (0.005)				-0.006 (0.005)	
Manag. w/Export Exp. Hired in t (0/1) $I(Share_{ft}^t > 0)$				-0.004 (0.004)				-0.001 (0.005)
Manag. w/Export Exp. Hired in t-1 (0/1) $I(Share_{ft}^{t-1} > 0)$				-0.003 (0.004)				-0.004 (0.005)
Manag. w/Export Exp. Hired in t-2 (0/1) $I(Share_{ft}^{t-2} > 0)$				-0.002 (0.005)				-0.002 (0.006)
Manag. w/Export Exp. Hired bef. t-2 (0/1) $I(Share_{ft}^{<t-2} > 0)$				0.008 (0.006)				0.011 (0.008)
Manag. w/Export Exp. Hired in t (Share) $Share_{ft}^t$				0.003 ^a (0.001)				0.002 ^a (0.001)
Manag. w/Export Exp. Hired in t-1 (Share) $Share_{ft}^{t-1}$				0.003 ^a (0.001)				0.003 ^a (0.001)
Manag. w/Export Exp. Hired in t-2 (Share) $Share_{ft}^{t-2}$				0.003 ^a (0.001)				0.002 ^a (0.001)
Manag. w/Export Exp. Hired bef. t-2 (Share) $Share_{ft}^{<t-2}$				0.002 ^b (0.001)				0.001 (0.001)
Firm Size (log) $Size_{ft}$	0.014 ^a (0.001)	0.014 ^a (0.001)	0.014 ^a (0.001)	0.014 ^a (0.001)	0.015 ^a (0.001)	0.015 ^a (0.001)	0.015 ^a (0.001)	0.015 ^a (0.001)
App. Labor Productivity (log) $Prod_{ft}$	0.005 ^a (0.001)	0.006 ^a (0.001)	0.006 ^a (0.001)	0.005 ^a (0.001)	0.006 ^a (0.001)	0.006 ^a (0.001)	0.007 ^a (0.001)	0.006 ^a (0.001)
Observations	35,574	35,574	35,574	35,574	35,574	35,574	35,574	35,574
Pseudo R ²	0.107	0.107	0.107	0.107	0.0981	0.0994	0.0985	0.0985

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses
^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 12: Trade Status Regressions Core Covariates - Exiting vs. Continuing, All Managers

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. w/Export Exp. (0/1) $I(Share_{ft} > 0)$	-0.012 (0.013)		-0.014 (0.013)		-0.011 (0.013)		-0.013 (0.013)	
Manag. w/Export Exp. (Share) $Share_{ft}$	-0.000 (0.002)		-0.002 (0.016)		-0.001 (0.002)		-0.008 (0.018)	
Manag. w/Export Exp. Q1 (0/1)		-0.014 (0.010)				-0.014 (0.010)		
Manag. w/Export Exp. Q2 (0/1)		-0.009 (0.011)				-0.010 (0.011)		
Manag. w/Export Exp. Q3 (0/1)		-0.009 (0.010)				-0.010 (0.010)		
Manag. w/Export Exp. Q4 (0/1)		-0.012 (0.008)				-0.016 ^b (0.007)		
Export Exp. X Size $Share_{ft} \times Size_{ft}$			0.007 (0.005)				0.007 (0.006)	
Export Exp. X Productivity $Share_{ft} \times Prod_{ft}$			-0.003 (0.014)				0.002 (0.015)	
Manag. w/Export Exp. Hired in t (0/1) $I(Share_{ft}^t > 0)$				-0.004 (0.007)				-0.006 (0.007)
Manag. w/Export Exp. Hired in t-1 (0/1) $I(Share_{ft}^{t-1} > 0)$				0.007 (0.008)				0.016 (0.011)
Manag. w/Export Exp. Hired in t-2 (0/1) $I(Share_{ft}^{t-2} > 0)$				-0.002 (0.007)				0.006 (0.009)
Manag. w/Export Exp. Hired bef. t-2 (0/1) $I(Share_{ft}^{<t-2} > 0)$				-0.005 (0.006)				-0.001 (0.007)
Manag. w/Export Exp. Hired in t (Share) $Share_{ft}^t$				0.000 (0.001)				0.001 (0.001)
Manag. w/Export Exp. Hired in t-1 (Share) $Share_{ft}^{t-1}$				-0.004 ^a (0.001)				-0.005 ^a (0.002)
Manag. w/Export Exp. Hired in t-2 (Share) $Share_{ft}^{t-2}$				-0.001 (0.001)				-0.002 (0.001)
Manag. w/Export Exp. Hired bef. t-2 (Share) $Share_{ft}^{<t-2}$				0.001 (0.002)				0.000 (0.002)
Firm Size (log) $Size_{ft}$	-0.023 ^a (0.001)	-0.023 ^a (0.001)	-0.024 ^a (0.001)	-0.023 ^a (0.001)	-0.023 ^a (0.001)	-0.023 ^a (0.001)	-0.023 ^a (0.001)	-0.023 ^a (0.001)
App. Labor Productivity (log) $Prod_{ft}$	-0.010 ^a (0.001)	-0.010 ^a (0.001)	-0.010 ^a (0.001)	-0.010 ^a (0.001)	-0.010 ^a (0.001)	-0.010 ^a (0.001)	-0.010 ^a (0.001)	-0.010 ^a (0.001)
Observations	20,398	20,398	20,398	20,398	20,398	20,398	20,398	20,398
Pseudo R ²	0.0954	0.0958	0.0959	0.0964	0.0956	0.0960	0.0959	0.0969

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 13: Trade Status Regressions Core Covariates - Exiting vs. Continuing, All Managers, Worker-TS Fixed Effects

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. w/Export Exp. (0/1) $I(Share_{ft} > 0)$	-0.015 (0.013)		-0.017 (0.013)		-0.014 (0.013)		-0.015 (0.013)	
Manag. w/Export Exp. (Share) $Share_{ft}$	-0.000 (0.002)		-0.002 (0.016)		-0.001 (0.002)		-0.008 (0.018)	
Manag. w/Export Exp. Q1 (0/1)		-0.016 ^c (0.009)				-0.016 ^c (0.009)		
Manag. w/Export Exp. Q2 (0/1)		-0.011 (0.010)				-0.012 (0.010)		
Manag. w/Export Exp. Q3 (0/1)		-0.011 (0.009)				-0.012 (0.009)		
Manag. w/Export Exp. Q4 (0/1)		-0.014 ^c (0.007)				-0.017 ^a (0.006)		
Export Exp. X Size $Share_{ft} \times Size_{ft}$			0.006 (0.005)				0.006 (0.006)	
Export Exp. X Productivity $Share_{ft} \times Prod_{ft}$			-0.002 (0.014)				0.003 (0.015)	
Manag. w/Export Exp. Hired in t (0/1) $I(Share_{ft}^t > 0)$				-0.004 (0.006)				-0.006 (0.006)
Manag. w/Export Exp. Hired in t-1 (0/1) $I(Share_{ft}^{t-1} > 0)$				0.007 (0.008)				0.015 (0.011)
Manag. w/Export Exp. Hired in t-2 (0/1) $I(Share_{ft}^{t-2} > 0)$				-0.002 (0.007)				0.006 (0.009)
Manag. w/Export Exp. Hired bef. t-2 (0/1) $I(Share_{ft}^{<t-2} > 0)$				-0.005 (0.006)				-0.002 (0.007)
Manag. w/Export Exp. Hired in t (Share) $Share_{ft}^t$				0.000 (0.001)				0.001 (0.001)
Manag. w/Export Exp. Hired in t-1 (Share) $Share_{ft}^{t-1}$				-0.004 ^b (0.001)				-0.005 ^a (0.002)
Manag. w/Export Exp. Hired in t-2 (Share) $Share_{ft}^{t-2}$				-0.001 (0.001)				-0.002 (0.001)
Manag. w/Export Exp. Hired bef. t-2 (Share) $Share_{ft}^{<t-2}$				0.001 (0.002)				0.000 (0.002)
Firm Size (log) $Size_{ft}$	-0.022 ^a (0.001)	-0.021 ^a (0.001)	-0.022 ^a (0.002)	-0.022 ^a (0.001)	-0.022 ^a (0.001)	-0.021 ^a (0.001)	-0.022 ^a (0.001)	-0.022 ^a (0.001)
App. Labor Productivity (log) $Prod_{ft}$	-0.009 ^a (0.001)	-0.009 ^a (0.001)	-0.009 ^a (0.001)	-0.009 ^a (0.001)	-0.009 ^a (0.001)	-0.009 ^a (0.001)	-0.009 ^a (0.001)	-0.009 ^a (0.001)
Observations	20,398	20,398	20,398	20,398	20,398	20,398	20,398	20,398
Pseudo R ²	0.101	0.102	0.102	0.102	0.102	0.103	0.102	0.103

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 14: Trade Status Regressions Core Covariates - New vs. Never, Displaced Managers

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. w/Export Exp. (0/1) $I(Share_{ft} > 0)$	-0.015 (0.009)		-0.012 (0.011)		-0.019 ^b (0.008)		-0.018 ^b (0.009)	
Manag. w/Export Exp. (Share) $Share_{ft}$	0.003 ^a (0.001)		0.006 (0.005)		0.003 ^a (0.001)		0.008 (0.006)	
Manag. w/Export Exp. Q1 (0/1)		-0.018 ^a (0.007)				-0.019 ^a (0.007)		
Manag. w/Export Exp. Q2 (0/1)		-0.012 (0.010)				-0.015 (0.011)		
Manag. w/Export Exp. Q3 (0/1)		-0.008 (0.013)				-0.012 (0.013)		
Manag. w/Export Exp. Q4 (0/1)		0.003 (0.020)				0.002 (0.024)		
Export Exp. X Size $Share_{ft} \times Size_{ft}$			-0.003 ^b (0.001)				-0.002 (0.001)	
Export Exp. X Productivity $Share_{ft} \times Prod_{ft}$			-0.000 (0.005)				-0.003 (0.005)	
Manag. w/Export Exp. Hired in t (0/1) $I(Share_{ft}^t > 0)$				-0.003 (0.010)				-0.001 (0.014)
Manag. w/Export Exp. Hired in t-1 (0/1) $I(Share_{ft}^{t-1} > 0)$				-0.012 (0.007)				-0.016 ^b (0.006)
Manag. w/Export Exp. Hired in t-2 (0/1) $I(Share_{ft}^{t-2} > 0)$				-0.007 (0.012)				-0.012 (0.010)
Manag. w/Export Exp. Hired bef. t-2 (0/1) $I(Share_{ft}^{<t-2} > 0)$				-0.004 (0.011)				-0.005 (0.014)
Manag. w/Export Exp. Hired in t (Share) $Share_{ft}^t$				0.001 ^c (0.001)				0.001 ^c (0.001)
Manag. w/Export Exp. Hired in t-1 (Share) $Share_{ft}^{t-1}$				0.002 ^a (0.001)				0.002 ^a (0.001)
Manag. w/Export Exp. Hired in t-2 (Share) $Share_{ft}^{t-2}$				0.001 (0.001)				0.002 ^b (0.001)
Manag. w/Export Exp. Hired bef. t-2 (Share) $Share_{ft}^{<t-2}$				-0.001 (0.001)				-0.000 (0.001)
Firm Size (log) $Size_{ft}$	0.016 ^a (0.001)	0.016 ^a (0.001)	0.016 ^a (0.001)	0.016 ^a (0.001)	0.016 ^a (0.001)	0.016 ^a (0.001)	0.016 ^a (0.001)	0.016 ^a (0.001)
App. Labor Productivity (log) $Prod_{ft}$	0.007 ^a (0.001)	0.007 ^a (0.001)	0.007 ^a (0.001)	0.007 ^a (0.001)	0.007 ^a (0.001)	0.007 ^a (0.001)	0.007 ^a (0.001)	0.007 ^a (0.001)
Observations	35,574	35,574	35,574	35,574	35,574	35,574	35,574	35,574
Pseudo R ²	0.0926	0.0928	0.0929	0.0934	0.0915	0.0914	0.0917	0.0921

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 15: Trade Status Regressions Core Covariates - New vs. Never, Displaced Managers, Worker-TS Fixed Effects

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. w/Export Exp. (0/1) $I(Share_{ft} > 0)$	-0.008 (0.013)		-0.004 (0.016)		-0.009 (0.016)		-0.006 (0.018)	
Manag. w/Export Exp. (Share) $Share_{ft}$	0.002 ^a (0.001)		0.004 (0.005)		0.002 ^a (0.001)		0.006 (0.006)	
Manag. w/Export Exp. Q1 (0/1)		-0.013 (0.010)				-0.009 (0.018)		
Manag. w/Export Exp. Q2 (0/1)		-0.005 (0.015)				-0.002 (0.022)		
Manag. w/Export Exp. Q3 (0/1)		0.000 (0.018)				0.002 (0.025)		
Manag. w/Export Exp. Q4 (0/1)		0.014 (0.026)				0.027 (0.045)		
Export Exp. X Size $Share_{ft} \times Size_{ft}$			-0.003 ^c (0.001)				-0.002 (0.001)	
Export Exp. X Productivity $Share_{ft} \times Prod_{ft}$			0.001 (0.004)				-0.002 (0.005)	
Manag. w/Export Exp. Hired in t (0/1) $I(Share_{ft}^t > 0)$				-0.001 (0.010)				0.003 (0.016)
Manag. w/Export Exp. Hired in t-1 (0/1) $I(Share_{ft}^{t-1} > 0)$				-0.010 (0.007)				-0.014 ^b (0.007)
Manag. w/Export Exp. Hired in t-2 (0/1) $I(Share_{ft}^{t-2} > 0)$				-0.004 (0.013)				-0.009 (0.012)
Manag. w/Export Exp. Hired bef. t-2 (0/1) $I(Share_{ft}^{<t-2} > 0)$				-0.001 (0.012)				-0.001 (0.016)
Manag. w/Export Exp. Hired in t (Share) $Share_{ft}^t$				0.001 ^c (0.001)				0.001 (0.001)
Manag. w/Export Exp. Hired in t-1 (Share) $Share_{ft}^{t-1}$				0.002 ^a (0.001)				0.002 ^a (0.001)
Manag. w/Export Exp. Hired in t-2 (Share) $Share_{ft}^{t-2}$				0.001 (0.001)				0.002 ^b (0.001)
Manag. w/Export Exp. Hired bef. t-2 (Share) $Share_{ft}^{<t-2}$				-0.001 (0.001)				-0.000 (0.001)
Firm Size (log) $Size_{ft}$	0.014 ^a (0.001)	0.014 ^a (0.001)	0.015 ^a (0.001)	0.014 ^a (0.001)	0.015 ^a (0.001)	0.015 ^a (0.001)	0.015 ^a (0.001)	0.015 ^a (0.001)
App. Labor Productivity (log) $Prod_{ft}$	0.005 ^a (0.001)	0.006 ^a (0.001)	0.005 ^a (0.001)	0.006 ^a (0.001)	0.006 ^a (0.001)	0.006 ^a (0.001)	0.006 ^a (0.001)	0.006 ^a (0.001)
Observations	35,574	35,574	35,574	35,574	35,574	35,574	35,574	35,574
Pseudo R ²	0.100	0.100	0.101	0.101	0.0952	0.0951	0.0953	0.0958

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 16: Trade Status Regressions Core Covariates - Exiting vs. Continuing, Displaced Managers

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. w/Export Exp. (0/1) $I(Share_{ft} > 0)$	0.055 (0.080)		0.048 (0.077)		0.135 (0.169)		0.114 (0.157)	
Manag. w/Export Exp. (Share) $Share_{ft}$	-0.001 (0.001)		0.017 (0.021)		-0.001 (0.001)		0.005 (0.020)	
Manag. w/Export Exp. Q1 (0/1)		0.063 (0.099)				0.204 (0.238)		
Manag. w/Export Exp. Q2 (0/1)		0.066 (0.092)				0.160 (0.197)		
Manag. w/Export Exp. Q3 (0/1)		0.032 (0.063)				0.103 (0.142)		
Manag. w/Export Exp. Q4 (0/1)		0.040 (0.069)				0.112 (0.152)		
Export Exp. X Size $Share_{ft} \times Size_{ft}$			-0.003 (0.007)				0.001 (0.006)	
Export Exp. X Productivity $Share_{ft} \times Prod_{ft}$			-0.016 (0.017)				-0.007 (0.016)	
Manag. w/Export Exp. Hired in t (0/1) $I(Share_{ft}^t > 0)$				0.035 (0.036)				0.066 (0.052)
Manag. w/Export Exp. Hired in t-1 (0/1) $I(Share_{ft}^{t-1} > 0)$				0.005 (0.021)				0.015 (0.025)
Manag. w/Export Exp. Hired in t-2 (0/1) $I(Share_{ft}^{t-2} > 0)$				0.029 (0.028)				0.055 (0.039)
Manag. w/Export Exp. Hired bef. t-2 (0/1) $I(Share_{ft}^{<t-2} > 0)$				0.005 (0.020)				0.017 (0.029)
Manag. w/Export Exp. Hired in t (Share) $Share_{ft}^t$				-0.000 (0.001)				-0.000 (0.001)
Manag. w/Export Exp. Hired in t-1 (Share) $Share_{ft}^{t-1}$				-0.001 (0.001)				-0.002 ^b (0.001)
Manag. w/Export Exp. Hired in t-2 (Share) $Share_{ft}^{t-2}$				-0.003 (0.002)				-0.002 (0.001)
Manag. w/Export Exp. Hired bef. t-2 (Share) $Share_{ft}^{<t-2}$				0.001 (0.001)				0.001 (0.001)
Firm Size (log) $Size_{ft}$	-0.023 ^a (0.001)	-0.023 ^a (0.001)	-0.023 ^a (0.001)	-0.023 ^a (0.001)	-0.023 ^a (0.001)	-0.023 ^a (0.001)	-0.023 ^a (0.001)	-0.023 ^a (0.001)
App. Labor Productivity (log) $Prod_{ft}$	-0.010 ^a (0.001)	-0.010 ^a (0.001)	-0.010 ^a (0.001)	-0.010 ^a (0.001)	-0.010 ^a (0.001)	-0.010 ^a (0.001)	-0.010 ^a (0.001)	-0.010 ^a (0.001)
Observations	20,398	20,398	20,398	20,398	20,398	20,398	20,398	20,398
Pseudo R ²	0.0961	0.0963	0.0964	0.0969	0.0962	0.0963	0.0963	0.0971

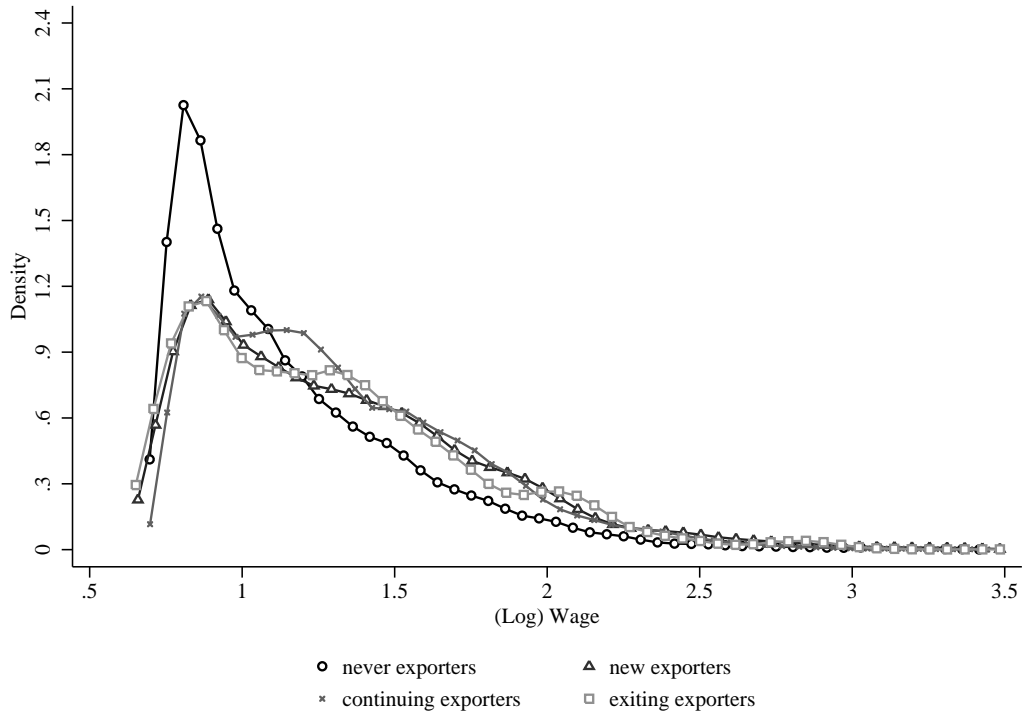
Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 17: Trade Status Regressions Core Covariates - Exiting vs. Continuing, Displaced Managers, Worker-TS Fixed Effects

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. w/Export Exp. (0/1) $I(Share_{ft} > 0)$	0.057 (0.086)		0.051 (0.083)		0.165 (0.195)		0.148 (0.189)	
Manag. w/Export Exp. (Share) $Share_{ft}$	-0.001 (0.001)		0.015 (0.021)		-0.001 (0.001)		0.003 (0.019)	
Manag. w/Export Exp. Q1 (0/1)		0.068 (0.107)				0.268 (0.278)		
Manag. w/Export Exp. Q2 (0/1)		0.070 (0.099)				0.199 (0.228)		
Manag. w/Export Exp. Q3 (0/1)		0.032 (0.066)				0.129 (0.166)		
Manag. w/Export Exp. Q4 (0/1)		0.043 (0.074)				0.138 (0.180)		
Export Exp. X Size $Share_{ft} \times Size_{ft}$			-0.003 (0.007)				0.001 (0.006)	
Export Exp. X Productivity $Share_{ft} \times Prod_{ft}$			-0.014 (0.017)				-0.005 (0.016)	
Manag. w/Export Exp. Hired in t (0/1) $I(Share_{ft}^t > 0)$				0.036 (0.034)				0.069 (0.052)
Manag. w/Export Exp. Hired in t-1 (0/1) $I(Share_{ft}^{t-1} > 0)$				0.007 (0.021)				0.018 (0.026)
Manag. w/Export Exp. Hired in t-2 (0/1) $I(Share_{ft}^{t-2} > 0)$				0.029 (0.028)				0.060 (0.042)
Manag. w/Export Exp. Hired bef. t-2 (0/1) $I(Share_{ft}^{<t-2} > 0)$				0.005 (0.019)				0.019 (0.031)
Manag. w/Export Exp. Hired in t (Share) $Share_{ft}^t$				-0.000 (0.001)				-0.000 (0.001)
Manag. w/Export Exp. Hired in t-1 (Share) $Share_{ft}^{t-1}$				-0.001 (0.001)				-0.002 ^b (0.001)
Manag. w/Export Exp. Hired in t-2 (Share) $Share_{ft}^{t-2}$				-0.003 (0.002)				-0.002 (0.001)
Manag. w/Export Exp. Hired bef. t-2 (Share) $Share_{ft}^{<t-2}$				0.001 (0.001)				0.001 (0.001)
Firm Size (log) $Size_{ft}$	-0.022 ^a (0.001)	-0.022 ^a (0.001)	-0.022 ^a (0.001)	-0.022 ^a (0.001)	-0.022 ^a (0.001)	-0.022 ^a (0.001)	-0.022 ^a (0.001)	-0.022 ^a (0.001)
App. Labor Productivity (log) $Prod_{ft}$	-0.009 ^a (0.001)	-0.009 ^a (0.001)	-0.009 ^a (0.001)	-0.009 ^a (0.001)	-0.009 ^a (0.001)	-0.009 ^a (0.001)	-0.009 ^a (0.001)	-0.009 ^a (0.001)
Observations	20,398	20,398	20,398	20,398	20,398	20,398	20,398	20,398
Pseudo R ²	0.102	0.102	0.102	0.103	0.103	0.103	0.103	0.103

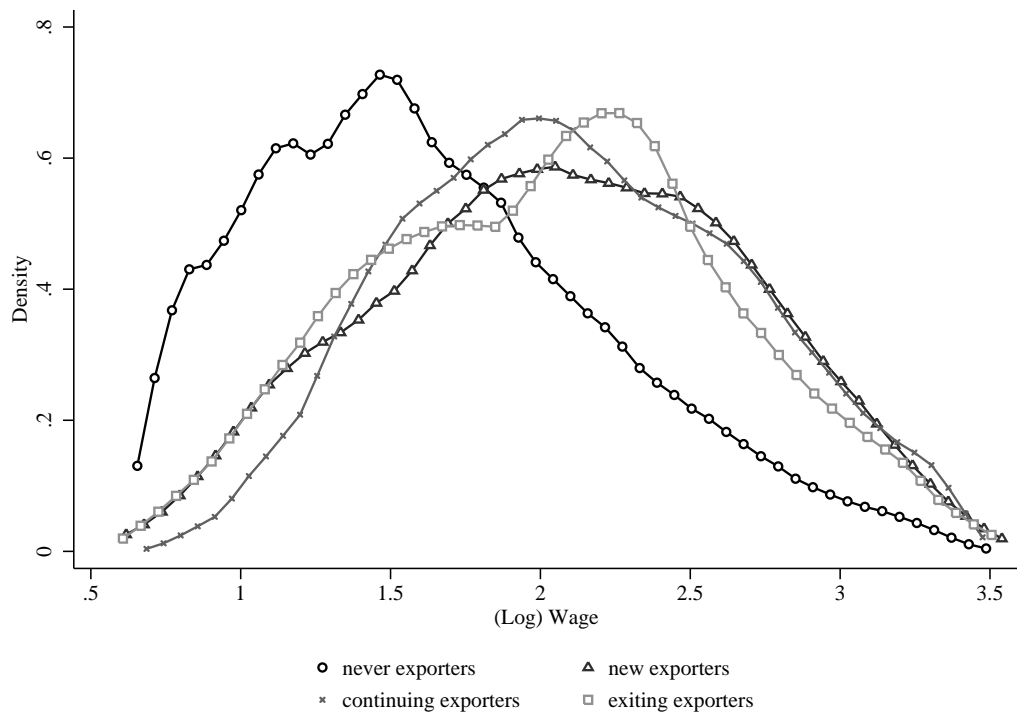
Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Figure 1: Wage Density for Non-Managers, by Trade Status, 2004



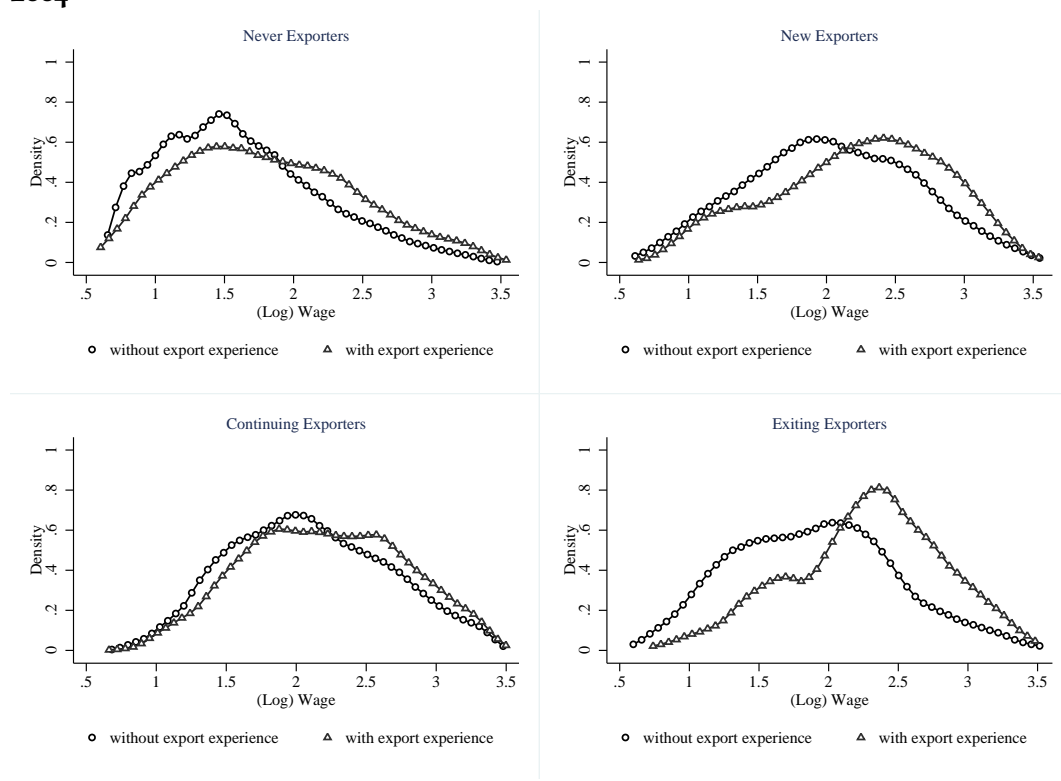
Notes: This Figure shows the kernel density of the log hourly wage distribution in the 2004 sample for non-managers, broken down by firm export status. The hourly wage is defined in the Data Appendix. The definition of "managers" and firms' export status categories are in Section 3.1. The kernel is Epanechnikov and the kernel width is the Stata default one.

Figure 2: Wage Density for Managers, by Trade Status, 2004



Notes: This Figure shows the kernel density of the log hourly wage distribution in the 2004 sample for managers, broken down by firm export status. The hourly wage is defined in the Data Appendix. The definition of "managers" and firms' export status categories are in Section 3.1. The kernel is Epanechnikov and the kernel width is the Stata default one.

Figure 3: Wage Density for Managers with and without Export Experience, by Trade Status, 2004



Notes: This Figure shows the kernel density of the log hourly wage distribution in the 2004 sample for managers, broken down by firm export status and manager export experience. The hourly wage is defined in the Data Appendix. The definition of "managers", "export experience" and firms' export status categories are in Section 3.1. The kernel is Epanechnikov and the kernel width is the Stata default one.

Data Appendix

Each worker in *Quadros de Pessoal* (QP) has a unique identifier based on her social security number. In order to minimize the risk that the same identifier is assigned to two different workers, we create a new individual identifier based on the worker original identifier, her gender, year and month of birth.

All the information in QP is collected during the month of November of each year. Worker-level variables (not available in 2001) refer to October of the same year. Firm-level variables refer to the current calendar year (except firm total sales that refer to the previous calendar year).

The location of the firm is measured according to the NUTS 3 regional disaggregation. We keep only NACE rev.1 2-digits industries between 10 and 95 (excluding agriculture, fishery, other minor industries and extra-territorial activities). Results shown in the paper refer to the manufacturing sector only (NACE 15 to 37).

In the trade data set, we restrict the sample to transactions registered as sales as opposed to returns, transfers of goods without transfer of ownership, and work done.

In the following, we report further details about the definitions of some key variables.

Hourly Wage Computed adding base and overtime wages plus regular benefits (at the month-level) and dividing by the number of regular and overtime hours worked in the reference week multiplied by 4.3. We apply a trimming of the top and bottom 0.5 per cent.

Hiring Date The year the worker was hired in the firm is a variable that is directly registered in QP. Since there are few instances when the hiring date changes from year to year for the same worker-firm spell, we create a robust version of the hiring date computed using the mode for each firm-worker spell. If there is a tie, we take the minimum year in the spell.

Tenure This variable is measured as the difference between the current year and the hiring date.

Foreign Ownership A firm is defined as foreign-owned if 50 percent or more of its equity is owned by a non-resident.

Firm Age Firm age at time t is equal to the difference between t and the year (minus one) the firm was created. The year the firm was created is replaced to missing whenever it is earlier than 1600.

Firm Size Firm size at time t is equal to the (log) number of all workers employed by the firm as resulting from the firm record.

Firm Apparent Labor Productivity Firm apparent labor productivity at time t is equal to the (log) ratio between total sales (sales in the domestic market plus exports) and the

number of all workers employed by the firm as resulting from the firm record.

Firm Trade Status Firm's trade status at time t is determined using the trade data set and according to the definitions provide in Section 3.1.

Export Experience and Strong Export Experience A worker in year t has "export experience" if she worked, in the past, in a different firm that had a positive amount of exports. A worker in year t has "strong export experience" if she worked, in the past, in a different firm that was active on the export market and whose total exports were above median export value (across exporting firm) within the firm's NACE 2-digits industry. Note that (i) experience can be acquired in a non-manufacturing firm as we focus on manufacturing only when performing estimations; (ii) since worker-level variables are not available for 2001 and, in few instances, workers are included in QP with a lag, we use the hiring date data variable in order to retrieve the firm affiliation of the worker in the past whenever this is missing.

Firm Closure and Displaced Workers A firm is defined as closing in year t when the firm is included in QP in year t but not in any of the three subsequent years. In order to distinguish firms' closures from mergers & acquisitions we follow Carneiro and Portugal (2006) by imposing the worker hiring year in the new firm not to be smaller than the year of closure of the previous employer. As far as the firm closure variable is concerned we assume that no firm is in QP in 2001. More precisely, a worker whose firm closes in 2000 and that appears in QP in 2002 in a (different) firm is classified as displaced even if we do not observe workers in 2001.

Tables Appendix

Table 18: Classification of Workers According to Hierarchical Levels

Level	Tasks	Skills
1. Top executives (top management)	Definition of the firm general policy or consulting on the organization of the firm; strategic planning; creation or adaptation of technical, scientific and administrative methods or processes	Knowledge of management and coordination of firm's fundamental activities; knowledge of management and coordination of the fundamental activities in the field to which the individual is assigned and that requires the study and research of high responsibility and technical level problems
2. Intermediary executives (middle management)	Organization and adaptation of the guidelines established by the superiors and directly linked with the executive work	Technical and professional qualifications directed to executive, research, and management work
3. Supervisors, team leaders	Orientation of teams, as directed by the superiors, but requiring the knowledge of action processes	Complete professional qualification with a specialization
4. Higher-skilled professionals	Tasks requiring a high technical value and defined in general terms by the superiors	Complete professional qualification with a specialization adding to theoretical and applied knowledge
5. Skilled professionals	Complex or delicate tasks, usually not repetitive, and defined by the superiors	Complete professional qualification implying theoretical and applied knowledge
6. Semi-skilled professionals	Well defined tasks, mainly manual or mechanical (no intellectual work) with low complexity, usually routine and sometimes repetitive	Professional qualification in a limited field or practical and elementary professional knowledge
7. Non-skilled professionals	Simple tasks and totally determined	Practical knowledge and easily acquired in a short time
8. Apprentices, interns, trainees	Apprenticeship	

Notes: Hierarchical levels defined according to Decreto Lei 121/78 of July 2nd (Lima and Pereira (2003)).

Table 19: Wage Regression - Core Covariates

Covariates	(1) Regular Export Exp.	(2) Strong Export Exp.	(3) Regular Epr & Worker-TS FE	(4) Strong Epr & Worker-TS FE
Export Exp. (0/1)	0.010 ^a (0.002)	0.004 (0.003)	-0.004 (0.011)	-0.031 ^c (0.018)
Manag. X Export Exp. (0/1)	0.058 ^a (0.007)	0.060 ^a (0.008)	0.027 ^b (0.014)	0.023 (0.016)
Export Exp. X New (0/1)	-0.007 ^b (0.003)	0.006 (0.003)	0.032 (0.028)	0.177 ^b (0.069)
Export Exp. X Cont. Exporter (0/1)	-0.018 ^a (0.003)	-0.014 ^a (0.003)	0.001 (0.011)	0.026 (0.018)
Export Exp. X Exit. Exporter (0/1)	-0.015 ^a (0.004)	-0.012 ^a (0.005)	-0.029 (0.038)	0.000 (0.036)
Export Exp. X Other Exporter (0/1)	-0.010 ^a (0.002)	-0.006 ^b (0.003)	0.014 (0.012)	0.049 ^a (0.018)
Manag. X Export Exp. X New (0/1)	0.005 (0.010)	-0.002 (0.011)	0.033 (0.071)	-0.078 (0.105)
Manag. X Export Exp. X Cont. (0/1)	0.028 ^a (0.008)	0.023 ^b (0.009)	0.059 ^a (0.014)	0.061 ^a (0.017)
Manag. X Export Exp. X Exit. (0/1)	0.038 ^a (0.012)	0.035 ^a (0.013)	0.038 (0.088)	0.036 (0.268)
Manag. X Export Exp. X Other (0/1)	0.009 (0.008)	0.006 (0.009)	0.030 ^c (0.017)	0.029 (0.019)
New Exporter (0/1)	0.013 ^a (0.001)	0.010 ^a (0.001)		
Continuing Exporter (0/1)	0.011 ^a (0.001)	0.009 ^a (0.001)		
Exiting Exporter (0/1)	0.001 (0.002)	-0.000 (0.001)		
Other Exporter (0/1)	0.006 ^a (0.001)	0.004 ^a (0.001)		
Manag. X New (0/1)	-0.000 (0.004)	0.001 (0.004)	-0.071 (0.083)	-0.044 (0.072)
Manag. X Cont. Exporter (0/1)	0.012 ^a (0.003)	0.013 ^a (0.003)	-0.012 ^a (0.004)	-0.011 ^a (0.004)
Manag. X Exit. Exporter (0/1)	0.002 (0.004)	0.002 (0.004)	0.075 (0.066)	0.079 (0.065)
Manag. X Other Exporter (0/1)	0.007 ^a (0.003)	0.007 ^b (0.003)	0.002 (0.007)	0.004 (0.007)
Constant	-1.143 ^a (0.098)	-1.147 ^a (0.098)	-1.391 ^a (0.116)	-1.398 ^a (0.116)
Observations	2,895,554	2,895,554	2,895,554	2,895,554
R ²	0.362	0.362	0.353	0.353
Number of nss	1051313	1051313		
Number of nss_ts			1279886	1279886

Notes: Results from estimation of equation (1). See Section 3.1 for definitions of "Regular export experience" and "Strong export experience". The specifications in columns (1) and (2) include worker fixed effects while the specifications in columns (3) and (4) include "worker-firm trade status" fixed effects. All specifications include a set of NUTS3 region dummies, NACE 2-digits industry dummies and year dummies. Standard errors clustered at the worker-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 20: Wage Regression - Controls

Covariates	(1) Regular Export Exp.	(2) Strong Export Exp.	(3) Regular Epr & Worker-TS FE	(4) Strong Epr & Worker-TS FE
Age (Years)	0.073 ^a (0.000)	0.073 ^a (0.000)	0.072 ^a (0.000)	0.073 ^a (0.000)
Age Squared (Years)	-0.000 ^a (0.000)	-0.000 ^a (0.000)	-0.000 ^a (0.000)	-0.000 ^a (0.000)
Education (Years)	0.003 ^a (0.000)	0.003 ^a (0.000)	0.003 ^a (0.000)	0.003 ^a (0.000)
Tenure (Years)	0.000 ^a (0.000)	0.000 ^c (0.000)	0.000 (0.000)	-0.000 (0.000)
Manager (0/1)	0.024 ^a (0.003)	0.025 ^a (0.003)	0.041 ^a (0.004)	0.042 ^a (0.004)
Blue Collar (0/1)	-0.046 ^a (0.001)	-0.046 ^a (0.001)	-0.041 ^a (0.002)	-0.042 ^a (0.002)
Other Collar (0/1)	-0.108 ^a (0.002)	-0.108 ^a (0.002)	-0.102 ^a (0.002)	-0.102 ^a (0.002)
Firm Size (log)	0.031 ^a (0.001)	0.030 ^a (0.001)	0.034 ^a (0.001)	0.034 ^a (0.001)
Apparent Labor Productivity (log)	0.004 ^a (0.000)	0.004 ^a (0.000)	0.002 ^a (0.000)	0.002 ^a (0.000)
Firm Age (log)	0.003 ^a (0.001)	0.003 ^a (0.001)	0.007 ^a (0.001)	0.007 ^a (0.001)
Foreign Ownership (0/1)	0.021 ^a (0.001)	0.021 ^a (0.001)	0.012 ^a (0.001)	0.012 ^a (0.001)
Avg. Managers' Age	-0.001 ^a (0.000)	-0.001 ^a (0.000)	-0.001 ^a (0.000)	-0.001 ^a (0.000)
Std. Dev. Managers' Age	0.000 ^a (0.000)	0.000 ^a (0.000)	0.000 ^c (0.000)	0.000 ^c (0.000)
Avg. Managers' Education	-0.000 ^c (0.000)	-0.000 ^c (0.000)	-0.001 ^a (0.000)	-0.001 ^a (0.000)
Std. Dev. Managers' Education	0.000 (0.000)	0.000 (0.000)	0.000 ^a (0.000)	0.000 ^a (0.000)
Observations	2,895,554	2,895,554	2,895,554	2,895,554
R ²	0.362	0.362	0.353	0.353
Number of nss	1051313	1051313		
Number of nss_ts			1279886	1279886

Notes: Results from estimation of equation (1). See Section 3.1 for definitions of "Regular export experience" and "Strong export experience". The specifications in columns (1) and (2) include worker fixed effects while the specifications in columns (3) and (4) include "worker-firm trade status" fixed effects. All specifications include a set of NUTS3 region dummies, NACE 2-digits industry dummies and year dummies. Standard errors clustered at the worker-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 21: Wage Regression: Hypotheses Testing on Non-managers, Robust Std. Errors

Firm type	Never Exporter	New Exporter	Continuing Exporter	Exiting Exporter	Other Exporter
Regular export experience					
Experience premia	0.010 ^a	0.003	-0.008 ^a	-0.005	0.000
χ^2 -Test Statistic value	22.13	1.61	45.84	1.69	0.01
P-value	0.000	0.205	0.000	0.193	0.907
Strong export experience					
Experience premia	0.004 ^c	0.010 ^a	-0.010 ^a	-0.008 ^b	-0.002
χ^2 -Test Statistic value	2.89	12.80	65.66	3.58	1.43
P-value	0.089	0.000	0.000	0.058	0.232
Regular export experience and worker-TS FE					
Experience premia	-0.004	0.029	-0.003 ^b	-0.033	0.010 ^a
χ^2 -Test Statistic value	0.16	1.81	5.45	1.15	7.73
P-value	0.687	0.179	0.020	0.283	0.005
Strong export experience and worker-TS FE					
Experience premia	-0.031 ^b	0.146 ^a	-0.005 ^a	-0.031	0.018 ^a
χ^2 -Test Statistic value	4.20	6.81	10.68	1.34	18.57
P-value	0.040	0.009	0.001	0.248	0.000

Notes: This table includes results from linear hypotheses tests based on the estimation of equation (1). The definition of "managers", regular and strong "export experience" and firms' export status categories are in Section 3.1. "worker-TS FE" stands for "worker-firm trade status" fixed effects. ^a, ^b, and ^c mean, respectively, that the experience premium is significantly different from zero at the 1, 5, and 10% confidence level. Test statistics and p-value are corrected for robust standard errors.

Table 22: Wage Regression: Hypotheses Testing on Managers, Robust Std. Errors

Firm type	Never Exporter	New Exporter	Continuing Exporter	Exiting Exporter	Other Exporter
Basic experience					
Experience premia	0.068 ^a	0.066 ^a	0.078 ^a	0.091 ^{a**}	0.068 ^a
χ^2 -Test Statistic value	122.88	97.35	770.63	86.52	268.73
P-value	0.000	0.000	0.000	0.000	0.000
Strong experience					
Experience premia	0.064 ^a	0.067 ^a	0.073 ^a	0.087 ^{a**}	0.064 ^a
χ^2 -Test Statistic value	85.81	89.77	632.85	82.97	213.61
P-value	0.000	0.000	0.000	0.000	0.000
Basic experience and worker/TS fixed effects					
Experience premia	0.023	0.089	0.082 ^{a***}	0.032	0.068 ^{a***}
χ^2 -Test Statistic value	2.62	2.51	649.74	0.22	72.56
P-value	0.105	0.113	0.000	0.636	0.000
Strong experience and worker/TS fixed effects					
Experience premia	-0.007	0.092	0.079 ^{a***}	0.028	0.071 ^{a***}
χ^2 -Test Statistic value	0.15	1.89	577.53	0.02	70.60
P-value	0.700	0.169	0.000	0.900	0.000

Notes: This table includes results from linear hypotheses tests based on the estimation of equation (1). The definition of "managers", regular and strong "export experience" and firms' export status categories are in Section 3.1. "worker-TS FE" stands for "worker-firm trade status" fixed effects. ^a, ^b, and ^c mean, respectively, that the experience premium is significantly different from zero at the 1, 5, and 10% confidence level. ^{***}, ^{**}, and ^{*} mean, respectively, that the experience premia is significantly different from the one of Never exporters at the 1, 5, and 10% confidence level. Test statistics and p-value are corrected for robust standard errors.

Table 23: Trade Status Regressions Controls - New vs. Never, All Managers

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. Hired in t (Share)	0.009 ^a (0.003)	0.009 ^a (0.003)	0.009 ^a (0.003)	0.011 ^a (0.004)	0.011 ^a (0.003)	0.011 ^a (0.003)	0.011 ^a (0.003)	0.011 ^a (0.003)
Manag. Hired in t-1 (Share)	0.012 ^a (0.003)	0.012 ^a (0.003)	0.012 ^a (0.003)	0.012 ^a (0.003)	0.014 ^a (0.003)	0.014 ^a (0.003)	0.014 ^a (0.003)	0.014 ^a (0.003)
Manag. Hired in t-2 (Share)	0.005 (0.003)	0.005 (0.003)	0.005 ^c (0.003)	0.004 (0.004)	0.006 ^b (0.003)	0.006 ^b (0.003)	0.006 ^b (0.003)	0.006 ^c (0.003)
Firm Age (log)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)
Foreign Ownership (0/1)	0.017 ^b (0.007)	0.018 ^b (0.007)	0.016 ^b (0.007)	0.016 ^b (0.007)	0.017 ^b (0.007)	0.018 ^a (0.007)	0.016 ^b (0.007)	0.016 ^b (0.007)
Avg. Managers' Age	0.001 (0.001)	0.002 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)
Std. Dev. Managers' Age	0.003 ^b (0.001)	0.002 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)
Avg. Managers' Education	0.003 ^a (0.001)	0.003 ^a (0.001)	0.003 ^a (0.001)	0.003 ^a (0.001)	0.003 ^a (0.001)	0.003 ^a (0.001)	0.003 ^a (0.001)	0.003 ^a (0.001)
Std. Dev. Managers' Education	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Avg. FE Managers	0.004 ^b (0.001)	0.004 ^b (0.001)	0.003 ^b (0.001)	0.004 ^b (0.001)	0.004 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.004 ^b (0.001)
Std. Dev. FE Managers	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Avg. Age Manag. w/Export Exp.	0.001 (0.003)	0.001 (0.003)	0.002 (0.003)	0.001 (0.002)	0.002 (0.003)	0.002 (0.003)	0.003 (0.003)	0.001 (0.002)
Std. Dev. Age Manag. w/Export Exp.	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.000 (0.001)	-0.000 (0.001)
Avg. Educ. Manag. w/Export Exp.	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)
Std. Dev. Educ. Manag. w/Export Exp.	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.000 (0.001)	-0.000 (0.001)
Avg. FE Manag. w/Export Exp.	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)
Std. Dev. FE Manag. w/Export Exp.	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Observations	35,574	35,574	35,574	35,574	35,574	35,574	35,574	35,574
Pseudo R ²	0.0990	0.0995	0.0998	0.0995	0.0942	0.0956	0.0948	0.0947

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses
^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 24: Trade Status Regressions Controls - New vs. Never, All Managers, Worker-TS Fixed Effects

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. Hired in t (Share)	0.009 ^a (0.003)	0.009 ^a (0.003)	0.009 ^a (0.003)	0.011 ^a (0.003)	0.011 ^a (0.003)	0.011 ^a (0.003)	0.011 ^a (0.003)	0.011 ^a (0.003)
Manag. Hired in t-1 (Share)	0.012 ^a (0.003)	0.012 ^a (0.003)	0.012 ^a (0.002)	0.012 ^a (0.003)	0.014 ^a (0.003)	0.014 ^a (0.003)	0.014 ^a (0.003)	0.014 ^a (0.003)
Manag. Hired in t-2 (Share)	0.005 ^c (0.003)	0.005 ^c (0.003)	0.005 ^c (0.003)	0.004 (0.003)	0.006 ^b (0.003)	0.006 ^b (0.003)	0.006 ^b (0.003)	0.006 ^c (0.003)
Firm Age (log)	-0.002 ^b (0.001)	-0.002 ^b (0.001)	-0.002 ^b (0.001)	-0.002 ^b (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)
Foreign Ownership (0/1)	0.012 ^b (0.006)	0.013 ^b (0.006)	0.012 ^b (0.006)	0.011 ^b (0.006)	0.014 ^b (0.006)	0.016 ^b (0.006)	0.014 ^b (0.006)	0.014 ^b (0.006)
Avg. Managers' Age	0.006 ^a (0.001)	0.006 ^a (0.001)	0.006 ^a (0.001)	0.006 ^a (0.001)	0.005 ^a (0.001)	0.005 ^a (0.001)	0.005 ^a (0.001)	0.005 ^a (0.001)
Std. Dev. Managers' Age	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)
Avg. Managers' Education	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)
Std. Dev. Managers' Education	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Avg. FE Managers	0.012 ^a (0.001)	0.012 ^a (0.001)	0.012 ^a (0.001)	0.012 ^a (0.001)	0.009 ^a (0.001)	0.009 ^a (0.001)	0.009 ^a (0.001)	0.009 ^a (0.001)
Std. Dev. FE Managers	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)
Avg. Age Manag. w/Export Exp.	-0.002 (0.003)	-0.002 (0.003)	-0.001 (0.003)	-0.000 (0.002)	-0.002 (0.003)	-0.002 (0.003)	-0.001 (0.003)	-0.001 (0.002)
Std. Dev. Age Manag. w/Export Exp.	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Avg. Educ. Manag. w/Export Exp.	-0.000 (0.002)	-0.000 (0.002)	0.000 (0.002)	0.001 (0.001)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)
Std. Dev. Educ. Manag. w/Export Exp.	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.000 (0.001)	-0.000 (0.001)
Avg. FE Manag. w/Export Exp.	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)
Std. Dev. FE Manag. w/Export Exp.	0.001 (0.001)	0.001 (0.001)	0.001 ^c (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 ^c (0.001)	0.001 (0.001)
Observations	35,574	35,574	35,574	35,574	35,574	35,574	35,574	35,574
Pseudo R ²	0.107	0.107	0.107	0.107	0.0981	0.0994	0.0985	0.0985

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 25: Trade Status Regressions Controls - Exiting vs. Continuing, All Managers

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. Hired in t (Share)	-0.003 (0.005)	-0.003 (0.005)	-0.003 (0.005)	-0.003 (0.006)	-0.002 (0.005)	-0.002 (0.005)	-0.002 (0.005)	-0.003 (0.006)
Manag. Hired in t-1 (Share)	-0.006 (0.006)	-0.006 (0.006)	-0.006 (0.006)	-0.001 (0.006)	-0.006 (0.006)	-0.006 (0.006)	-0.005 (0.006)	-0.001 (0.006)
Manag. Hired in t-2 (Share)	-0.005 (0.005)	-0.005 (0.005)	-0.005 (0.005)	-0.002 (0.006)	-0.005 (0.005)	-0.005 (0.005)	-0.005 (0.005)	-0.003 (0.006)
Firm Age (log)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)	0.002 (0.001)
Foreign Ownership (0/1)	-0.007 ^c (0.004)	-0.007 ^c (0.004)	-0.007 ^c (0.004)	-0.007 ^c (0.004)	-0.007 ^c (0.004)	-0.006 ^c (0.004)	-0.007 ^c (0.004)	-0.007 ^c (0.004)
Avg. Managers' Age	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)
Std. Dev. Managers' Age	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)
Avg. Managers' Education	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Std. Dev. Managers' Education	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)
Avg. FE Managers	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 ^c (0.001)
Std. Dev. FE Managers	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)
Avg. Age Manag. w/Export Exp.	0.004 (0.006)	0.004 (0.006)	0.005 (0.006)	0.001 (0.003)	0.005 (0.006)	0.006 (0.006)	0.006 (0.006)	0.001 (0.004)
Std. Dev. Age Manag. w/Export Exp.	-0.001 (0.002)	-0.001 (0.002)	-0.002 (0.003)	-0.001 (0.002)	-0.001 (0.003)	-0.001 (0.003)	-0.001 (0.003)	-0.001 (0.003)
Avg. Educ. Manag. w/Export Exp.	0.001 (0.004)	0.001 (0.004)	0.001 (0.004)	0.001 (0.004)	0.000 (0.004)	0.000 (0.004)	0.001 (0.004)	-0.001 (0.004)
Std. Dev. Educ. Manag. w/Export Exp.	-0.000 (0.002)	-0.000 (0.002)	-0.000 (0.002)	0.000 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)
Avg. FE Manag. w/Export Exp.	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	0.000 (0.003)	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	-0.000 (0.003)
Std. Dev. FE Manag. w/Export Exp.	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)
Observations	20,398	20,398	20,398	20,398	20,398	20,398	20,398	20,398
Pseudo R^2	0.0954	0.0958	0.0959	0.0964	0.0956	0.0960	0.0959	0.0969

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 26: Trade Status Regressions Controls - Exiting vs. Continuing, All Managers, Worker-TS Fixed Effects

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. Hired in t (Share)	-0.004 (0.005)	-0.004 (0.005)	-0.004 (0.005)	-0.004 (0.006)	-0.004 (0.005)	-0.004 (0.005)	-0.004 (0.005)	-0.005 (0.006)
Manag. Hired in t-1 (Share)	-0.007 (0.006)	-0.007 (0.006)	-0.007 (0.006)	-0.002 (0.006)	-0.007 (0.006)	-0.007 (0.006)	-0.006 (0.006)	-0.003 (0.006)
Manag. Hired in t-2 (Share)	-0.006 (0.005)	-0.006 (0.005)	-0.006 (0.005)	-0.003 (0.006)	-0.006 (0.005)	-0.006 (0.005)	-0.006 (0.005)	-0.004 (0.006)
Firm Age (log)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Foreign Ownership (0/1)	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)	-0.003 (0.004)	-0.004 (0.004)	-0.004 (0.004)
Avg. Managers' Age	-0.003 ^b (0.001)	-0.003 ^b (0.001)	-0.003 ^b (0.001)	-0.003 ^b (0.001)	-0.003 ^b (0.001)	-0.003 ^b (0.001)	-0.003 ^b (0.001)	-0.003 ^b (0.001)
Std. Dev. Managers' Age	-0.001 (0.002)	-0.002 (0.002)	-0.001 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)
Avg. Managers' Education	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)
Std. Dev. Managers' Education	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)	0.002 (0.001)
Avg. FE Managers	-0.010 ^a (0.002)	-0.010 ^a (0.002)	-0.010 ^a (0.002)	-0.009 ^a (0.002)	-0.010 ^a (0.002)	-0.010 ^a (0.002)	-0.010 ^a (0.002)	-0.010 ^a (0.002)
Std. Dev. FE Managers	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
Avg. Age Manag. w/Export Exp.	0.006 (0.006)	0.006 (0.006)	0.007 (0.006)	0.002 (0.004)	0.007 (0.006)	0.008 (0.006)	0.007 (0.006)	0.002 (0.004)
Std. Dev. Age Manag. w/Export Exp.	-0.001 (0.002)	-0.001 (0.002)	-0.002 (0.002)	-0.001 (0.002)	-0.001 (0.003)	-0.001 (0.003)	-0.001 (0.003)	-0.001 (0.003)
Avg. Educ. Manag. w/Export Exp.	-0.000 (0.004)	-0.000 (0.004)	0.000 (0.004)	-0.001 (0.004)	-0.001 (0.004)	-0.001 (0.004)	-0.000 (0.004)	-0.002 (0.004)
Std. Dev. Educ. Manag. w/Export Exp.	-0.000 (0.002)	-0.000 (0.002)	-0.000 (0.002)	0.000 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)
Avg. FE Manag. w/Export Exp.	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	0.001 (0.003)
Std. Dev. FE Manag. w/Export Exp.	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.003)	0.003 (0.002)	0.003 (0.002)	0.002 (0.002)	0.002 (0.002)
Observations	20,398	20,398	20,398	20,398	20,398	20,398	20,398	20,398
Pseudo R ²	0.101	0.102	0.102	0.102	0.102	0.103	0.102	0.103

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 27: Trade Status Regressions Controls - New vs. Never, Displaced Managers

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. Hired in t (Share)	0.012 ^a (0.003)	0.012 ^a (0.003)	0.013 ^a (0.003)	0.011 ^a (0.003)	0.013 ^a (0.003)	0.013 ^a (0.003)	0.013 ^a (0.003)	0.012 ^a (0.003)
Manag. Hired in t-1 (Share)	0.015 ^a (0.003)	0.015 ^a (0.003)	0.015 ^a (0.003)	0.013 ^a (0.003)	0.015 ^a (0.003)	0.015 ^a (0.003)	0.015 ^a (0.003)	0.015 ^a (0.003)
Manag. Hired in t-2 (Share)	0.007 ^b (0.003)	0.007 ^b (0.003)	0.007 ^b (0.003)	0.006 ^c (0.003)	0.007 ^b (0.003)	0.007 ^b (0.003)	0.007 ^b (0.003)	0.006 ^b (0.003)
Firm Age (log)	-0.004 ^a (0.001)	-0.004 ^a (0.001)	-0.004 ^a (0.001)	-0.004 ^a (0.001)	-0.004 ^a (0.001)	-0.004 ^a (0.001)	-0.004 ^a (0.001)	-0.004 ^a (0.001)
Foreign Ownership (0/1)	0.017 ^b (0.007)	0.017 ^b (0.007)	0.017 ^b (0.007)	0.017 ^b (0.007)	0.017 ^b (0.007)	0.017 ^b (0.007)	0.017 ^b (0.007)	0.017 ^b (0.007)
Avg. Managers' Age	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)
Std. Dev. Managers' Age	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)
Avg. Managers' Education	0.003 ^a (0.001)	0.003 ^a (0.001)	0.003 ^a (0.001)	0.003 ^a (0.001)	0.003 ^a (0.001)	0.003 ^a (0.001)	0.003 ^a (0.001)	0.003 ^a (0.001)
Std. Dev. Managers' Education	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Avg. FE Managers	0.004 ^a (0.001)	0.004 ^a (0.001)	0.004 ^a (0.001)	0.004 ^a (0.001)	0.004 ^a (0.001)	0.004 ^a (0.001)	0.004 ^a (0.001)	0.004 ^a (0.001)
Std. Dev. FE Managers	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)
Avg. Age Manag. w/Export Exp.	0.003 (0.003)	0.003 (0.003)	0.002 (0.003)	0.001 (0.002)	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	0.000 (0.002)
Std. Dev. Age Manag. w/Export Exp.	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Avg. Educ. Manag. w/Export Exp.	0.001 (0.001)	0.001 (0.001)	0.000 (0.001)	0.000 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Std. Dev. Educ. Manag. w/Export Exp.	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.000)	-0.000 (0.001)	-0.000 (0.001)
Avg. FE Manag. w/Export Exp.	-0.000 (0.001)	0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)
Std. Dev. FE Manag. w/Export Exp.	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Observations	35,574	35,574	35,574	35,574	35,574	35,574	35,574	35,574
Pseudo R ²	0.0926	0.0928	0.0929	0.0934	0.0915	0.0914	0.0917	0.0921

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses
^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 28: Trade Status Regressions Controls - New vs. Never, Displaced Managers, Worker-TS Fixed Effects

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. Hired in t (Share)	0.012 ^a (0.003)	0.012 ^a (0.003)	0.012 ^a (0.003)	0.011 ^a (0.003)	0.013 ^a (0.003)	0.013 ^a (0.003)	0.013 ^a (0.003)	0.012 ^a (0.003)
Manag. Hired in t-1 (Share)	0.014 ^a (0.003)	0.014 ^a (0.003)	0.014 ^a (0.003)	0.013 ^a (0.003)	0.015 ^a (0.003)	0.015 ^a (0.003)	0.015 ^a (0.003)	0.015 ^a (0.003)
Manag. Hired in t-2 (Share)	0.007 ^b (0.003)	0.007 ^b (0.003)	0.007 ^b (0.003)	0.006 ^b (0.003)	0.007 ^b (0.003)	0.007 ^b (0.003)	0.007 ^b (0.003)	0.006 ^b (0.003)
Firm Age (log)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.003 ^a (0.001)	-0.004 ^a (0.001)	-0.004 ^a (0.001)	-0.004 ^a (0.001)	-0.004 ^a (0.001)
Foreign Ownership (0/1)	0.011 ^b (0.006)	0.012 ^b (0.006)	0.011 ^c (0.006)	0.011 ^c (0.006)	0.014 ^b (0.006)	0.014 ^b (0.006)	0.013 ^b (0.006)	0.014 ^b (0.006)
Avg. Managers' Age	0.006 ^a (0.001)	0.006 ^a (0.001)	0.006 ^a (0.001)	0.006 ^a (0.001)	0.005 ^a (0.001)	0.005 ^a (0.001)	0.005 ^a (0.001)	0.005 ^a (0.001)
Std. Dev. Managers' Age	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)
Avg. Managers' Education	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)
Std. Dev. Managers' Education	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Avg. FE Managers	0.012 ^a (0.001)	0.012 ^a (0.001)	0.012 ^a (0.001)	0.012 ^a (0.001)	0.009 ^a (0.001)	0.009 ^a (0.001)	0.009 ^a (0.001)	0.009 ^a (0.001)
Std. Dev. FE Managers	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Avg. Age Manag. w/Export Exp.	0.001 (0.003)	0.001 (0.003)	0.000 (0.003)	0.000 (0.002)	-0.001 (0.003)	-0.001 (0.003)	-0.001 (0.003)	-0.001 (0.002)
Std. Dev. Age Manag. w/Export Exp.	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Avg. Educ. Manag. w/Export Exp.	0.001 (0.001)	0.002 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)
Std. Dev. Educ. Manag. w/Export Exp.	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.001)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Avg. FE Manag. w/Export Exp.	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 ^c (0.001)	-0.001 ^c (0.001)	-0.001 ^c (0.001)	-0.001 ^c (0.001)
Std. Dev. FE Manag. w/Export Exp.	0.000 (0.001)	-0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Observations	35,574	35,574	35,574	35,574	35,574	35,574	35,574	35,574
Pseudo R ²	0.100	0.100	0.101	0.101	0.0952	0.0951	0.0953	0.0958

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 29: Trade Status Regressions Controls - Exiting vs. Continuing, Displaced Managers

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. Hired in t (Share)	-0.003 (0.005)	-0.003 (0.005)	-0.003 (0.005)	-0.004 (0.006)	-0.003 (0.005)	-0.003 (0.005)	-0.003 (0.005)	-0.004 (0.006)
Manag. Hired in t-1 (Share)	-0.006 (0.006)	-0.006 (0.006)	-0.006 (0.006)	-0.005 (0.006)	-0.006 (0.006)	-0.006 (0.006)	-0.006 (0.006)	-0.005 (0.006)
Manag. Hired in t-2 (Share)	-0.005 (0.005)	-0.005 (0.005)	-0.005 (0.005)	-0.004 (0.005)	-0.005 (0.005)	-0.005 (0.005)	-0.005 (0.005)	-0.005 (0.005)
Firm Age (log)	0.002 (0.001)	0.001 (0.001)	0.002 (0.001)	0.001 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)
Foreign Ownership (0/1)	-0.007 ^c (0.004)	-0.007 ^c (0.004)	-0.007 ^c (0.004)	-0.007 ^c (0.004)	-0.007 ^c (0.004)	-0.007 ^c (0.004)	-0.007 ^c (0.004)	-0.007 ^c (0.004)
Avg. Managers' Age	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)	0.003 ^b (0.001)
Std. Dev. Managers' Age	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)
Avg. Managers' Education	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Std. Dev. Managers' Education	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)
Avg. FE Managers	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)
Std. Dev. FE Managers	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)
Avg. Age Manag. w/Export Exp.	-0.008 (0.008)	-0.008 (0.008)	-0.006 (0.008)	-0.003 (0.004)	-0.011 (0.008)	-0.011 (0.008)	-0.010 (0.008)	-0.004 (0.004)
Std. Dev. Age Manag. w/Export Exp.	-0.007 ^a (0.002)	-0.007 ^a (0.002)	-0.007 ^a (0.002)	-0.007 ^a (0.002)	-0.005 ^a (0.002)	-0.005 ^b (0.002)	-0.005 ^a (0.002)	-0.005 ^a (0.002)
Avg. Educ. Manag. w/Export Exp.	-0.001 (0.004)	-0.001 (0.004)	-0.001 (0.004)	-0.001 (0.004)	-0.001 (0.004)	-0.001 (0.005)	-0.001 (0.004)	-0.000 (0.005)
Std. Dev. Educ. Manag. w/Export Exp.	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.000 (0.002)	0.000 (0.002)	0.000 (0.002)	-0.000 (0.002)
Avg. FE Manag. w/Export Exp.	-0.000 (0.003)	-0.000 (0.003)	0.000 (0.003)	0.001 (0.003)	-0.001 (0.003)	-0.002 (0.003)	-0.001 (0.003)	0.000 (0.003)
Std. Dev. FE Manag. w/Export Exp.	0.004 ^b (0.002)	0.004 ^b (0.002)	0.004 ^b (0.002)	0.004 ^c (0.002)	0.005 ^b (0.002)	0.004 ^b (0.002)	0.005 ^b (0.002)	0.004 ^c (0.002)
Observations	20,398	20,398	20,398	20,398	20,398	20,398	20,398	20,398
Pseudo R ²	0.0961	0.0963	0.0964	0.0969	0.0962	0.0963	0.0963	0.0971

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.

Table 30: Trade Status Regressions Controls - Exiting vs. Continuing, Displaced Managers, Worker-TS Fixed Effects

Covariates	(1) Regular	(2) Regular	(3) Regular	(4) Regular	(5) Strong	(6) Strong	(7) Strong	(8) Strong
Manag. Hired in t (Share)	-0.004 (0.005)	-0.004 (0.005)	-0.004 (0.005)	-0.005 (0.005)	-0.004 (0.005)	-0.004 (0.005)	-0.004 (0.005)	-0.006 (0.005)
Manag. Hired in t-1 (Share)	-0.007 (0.006)	-0.007 (0.006)	-0.007 (0.006)	-0.006 (0.006)	-0.007 (0.006)	-0.007 (0.006)	-0.007 (0.006)	-0.006 (0.006)
Manag. Hired in t-2 (Share)	-0.006 (0.005)	-0.006 (0.005)	-0.006 (0.005)	-0.004 (0.005)	-0.006 (0.005)	-0.006 (0.005)	-0.006 (0.005)	-0.005 (0.005)
Firm Age (log)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Foreign Ownership (0/1)	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)
Avg. Managers' Age	-0.003 ^c (0.001)	-0.003 ^c (0.001)	-0.003 ^c (0.001)	-0.003 ^c (0.001)	-0.003 ^b (0.001)	-0.003 ^b (0.001)	-0.003 ^b (0.001)	-0.003 ^b (0.001)
Std. Dev. Managers' Age	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.001 (0.002)	-0.002 (0.002)	-0.002 (0.002)
Avg. Managers' Education	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)	0.002 ^c (0.001)
Std. Dev. Managers' Education	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Avg. FE Managers	-0.009 ^a (0.002)	-0.009 ^a (0.002)	-0.009 ^a (0.002)	-0.009 ^a (0.002)	-0.009 ^a (0.002)	-0.009 ^a (0.002)	-0.009 ^a (0.002)	-0.009 ^a (0.002)
Std. Dev. FE Managers	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
Avg. Age Manag. w/Export Exp.	-0.008 (0.008)	-0.008 (0.008)	-0.007 (0.008)	-0.003 (0.005)	-0.013 (0.008)	-0.014 ^c (0.008)	-0.013 (0.008)	-0.006 (0.004)
Std. Dev. Age Manag. w/Export Exp.	-0.006 ^a (0.002)	-0.006 ^a (0.002)	-0.006 ^a (0.002)	-0.006 ^a (0.002)	-0.004 ^b (0.002)	-0.004 ^b (0.002)	-0.004 ^b (0.002)	-0.005 ^a (0.002)
Avg. Educ. Manag. w/Export Exp.	-0.000 (0.005)	-0.000 (0.005)	-0.000 (0.005)	0.000 (0.005)	0.001 (0.005)	0.001 (0.005)	0.001 (0.005)	0.002 (0.005)
Std. Dev. Educ. Manag. w/Export Exp.	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.000 (0.002)	0.000 (0.002)	0.000 (0.002)	0.000 (0.002)
Avg. FE Manag. w/Export Exp.	-0.000 (0.003)	-0.001 (0.003)	-0.000 (0.003)	0.000 (0.003)	-0.003 (0.003)	-0.004 (0.003)	-0.003 (0.003)	-0.002 (0.003)
Std. Dev. FE Manag. w/Export Exp.	0.003 ^c (0.002)	0.003 ^c (0.002)	0.003 ^c (0.002)	0.003 (0.002)	0.004 ^b (0.002)	0.004 ^b (0.002)	0.004 ^b (0.002)	0.003 (0.002)
Observations	20,398	20,398	20,398	20,398	20,398	20,398	20,398	20,398
Pseudo R ²	0.102	0.102	0.102	0.103	0.103	0.103	0.103	0.103

Notes: Marginal effects. All covariates (except dummies) have been divided by their respective standard deviation. All specifications include a set of NACE 2-digits industry dummies and year dummies. Standard errors clustered at the firm-level in parentheses ^a $p < 0.01$, ^b $p < 0.05$, ^c $p < 0.1$.