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Posts as Trade Facilitators[♦]

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Abstract

In this paper, we examine an innovative postal export regime that involves both a streamlining of export procedures and provision of intermediation services to investigate how firms' react to changing trade costs and whether and how these firms learn. In so doing, we use a unique dataset that consists of the entire universe of Peru's export transactions over the period 1999-2014 including both regular shipments and postal shipments. We find that the new export mode has been associated with increased and more diversified regional exports, higher entry and exit rates, more export experimentation, and learning both within and across firms.

Keyword: Postal Exports, Trade Costs, Experimentation, Learning, Peru

JEL-Code: F10, F13, F14

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Posts as Trade Facilitators

1 Introduction

With more than 650,000 offices staffed with 5.5 million employees, posts are the largest retail network worldwide (see Clotteau, 2010; and UPU, 2013). In recent years, parcel and logistic services accounted for almost 20% of their revenues, which represents a 100% increase relative to beginning of the 2000s. In particular, posts processed more than 65 million international parcels, which are mostly up to 30 kilograms each. This paper examines the role of postal services in international trade.

In particular, we answer the following question: Can postal services facilitate trade? In so doing, we use an unprecedented dataset that covers the entire universe of both regular and postal export transactions for Peru from 1999 to 2014. This sample period covers an interesting policy experiment consisting of the implementation of a dedicated postal export regime primarily targeted to small firms. In particular, in 2007 Peru adopted *Exporta Fácil*, a program that allows firms to export small volume and value shipments at simplified export procedures via postal offices.

The current literature on trade and intermediation shows that trade intermediaries help smaller firms participate in international markets by taking advantage of their scope to spread high fixed costs over many products (see, e.g., Akerman, 2010; Ahn et Al., 2011; Bernard et al., 2010; and Blum et al., 2009). Smallest firms may not be able to use these intermediation services to sell abroad. The reason is twofold. First, intermediation introduces a middleman who adds its own profit margin to the prices and therefore lowers exports, thus making it harder for these firms to cover fixed costs. Second, in the case of the small firms that are geographically dispersed and produce specialty goods at a small scale, adaptation and direct communication with buyers regarding product specifications are likely to be required to make sure that these specifications meet their demands (see Holmes and Stevens, 2014). This can make standard intermediation not profitable. Fixed costs related to intermediation between sellers and customers cannot be spread over these products with degree of specialization. In addition, the logistics of exporting small scale specialty goods may not match the standard process set up by intermediaries taking advantage of scale economies. As a consequence, the smallest firms may accordingly decide to only serve the domestic market.

This is especially relevant for developing economies where there are many products that are hand-made, produced at a small scale and fill a niche or depend on key local inputs such as precious metals, know-how, and even cultural heritage. For instance, in Peru these products include specialty artisan jewelry and apparel products that crucially hinge upon highly localized inputs such as silver and alpaca and allow for tailoring to consumers' tastes (e.g., design and specific patterns). Double market pricing rules derived in the literature can then have large effects on export sales of these goods due to the logistic

and buyer-seller communication costs involved. If postal services intermediate relevant logistic-related export services or help firms perform these services themselves, then they could lower trade costs and make it possible for small specialized firms to cut the middleman. These firms could then have direct communication with customers and test and actually enter export markets more directly through postal shipments to realize important gains from trade.

A priori there are good reasons to believe that posts can serve as such trade facilitators. First, thanks to their physical network, they are present virtually everywhere. Being their offices entry/exit points for international shipments, they tend to be associated with lower costs to get the products to the country's border especially in remote locations. Second, posts take care of the logistics of the transactions. Third, post are linked with each other and with key actors in the trade process such as customs and airlines by an electronic network (Post*Net). Governments around the world have recognized that these conditions can make posts a critical interface for trade and have accordingly partnered with them to help firms access to international markets. Thus, in the United States, USPS is part of both the National Export Initiative (NEI) and the "Made in Rural America" Initiative.

In Latin America several countries adopted the *Exporta Fácil* program pioneered by Brazil in 2001 (see Figure 1). This program is a streamlined export regime. Instead of having to go to the nearest customs branch, fill in a full export declaration, and hire customs brokers and freight forwarders, under the *Exporta Fácil* scheme firms can deliver their shipments at the local postal office accompanied by a simplified export customs declaration (and other relevant documents as established by the regulations) and use the posts as both a customs broker that handles the processing of the shipments and the respective documentation with the customs and as a logistic operator that ships the goods to the destination.

From the point of view of the firms, the *Exporta Fácil* program can be seen as a publicly provided intermediation instance that contributes to reduce sunk entry and per period fixed export costs and can thereby affect their export decisions. This is particularly true for small firms and specifically those producing specialty goods at small scale -whose size is not necessarily due to low productivity but to their product specialization (see Holmes and Stevens, 2014). The reason is twofold. First, for shipments to be eligible to be processed through the *Exporta Fácil* channel, they have to be packed and declared to meet value and weight requirements, with the former varying across countries and the latter being generally a maximum of 30 kilograms. Second, as pointed out by Holmes and Stevens (2014), producers of highly differentiated and specialized goods tend to be more dispersed. These firms can then benefit more from

the ubiquitousness of postal offices to interact more and better with their customers, for example, by more easily shipping samples.¹

We explore whether and to what extent the *Exporta Fácil* program has actually made a difference along the lines discussed above, and discuss what we can learn from these arrangements on trade costs, firms' export behavior and learning, and possible strategies to promote their internationalization. Our data has two main identification advantages that help our empirical analysis. First, the time period we cover includes a well-defined policy experiment. The policy clearly defines the characteristics and limits of the export shipments that can be processed through the postal channel and the specific stages of the export process that are facilitated. From this, we are able to learn how important document management and complicated export procedures are to reduce international trade as well as show the benefits that can be obtained by simplifying these steps. Second, the high dimensionality of the data allows us to apply a rigorous set of fixed effects to account for time-varying unobserved firm-, product-, and destination-sources of heterogeneity. We therefore account for all potential confounding factors along these dimensions that can affect both the use of postal offices as export facilitators and export performance. As a result, we work with a level of flexibility and robustness that is a step above what we usually see in more aggregate datasets towards identifying the policy effects of interest and disentangling their channels and mechanisms.

We find that *Exporta Fácil* is associated with larger regional exports primarily along the firm extensive margin. These firms that start to export do so with lower export values when they use *Exporta Fácil*. This result confirms that postal exports reduce fixed cost of exporting and allows smaller firms to enter the export market. Moreover, we observe that firms are more likely to use *Exporta Fácil* when they introduce new products and enter new markets. This is consistent with the intuition that firms take advantage of low export costs to test new markets. In addition, our results suggest that *Exporta Fácil* has long term advantages. When firms finally switch from postal to regular export mechanisms, their exports tend to be higher and longer lived than for exporters that immediately start with the regular export channel. This is congruous with *Exporta Fácil* users learning at low costs and improving their export performance compared to firms who did not take advantage of postal exports and sell on their own or use standard intermediaries.

Our paper relates and contributes to several literatures. First, we add to a series of papers that examine how different trade costs (i.e., sunk entry costs, per-period fixed costs, variable costs, etc.) shape firms' export decisions by examining a case where these costs are exogenously modified by a clear-cut policy shock (see, e.g., Roberts and Tybout, 1997; Bernard and Jensen, 2004; Das et al., 2007; Volpe

¹ In the spirit of Holmes and Stevens (2014), for these types of firms postal shipments reduce distance frictions for shipments within the country. *Exporta Fácil* reduces distance and border frictions in international transactions. Unfortunately, we do not have within country trade data to decompose distance and border frictions as Holmes and Stevens (2014) do.

Martincus et al., 2014; Hornok and Koren, 2015). Instead of viewing these effects through the usual lenses of productivity differences, we also examine the role of specialty products (see Holmes and Stevens, 2014).

Second, our paper is linked to the growing body of research on the role of intermediaries in international trade (see, e.g., Akerman, 2010; Antras and Costinot, 2010, 2011; Bernard et al., 2010; Ahn et al., 2011; Blum et al., 2010; Feenstra and Hanson, 2004; Felbermayr and Jung, 2011; Crozet et al., 2013; and Bernard et al., 2014). Unlike these papers, we can see the firms that are actually using (the publicly provided) intermediation and compare them with similar direct exporters and particularly with regular manufacturing exporters (thus excluding intermediaries).

Third, we complement a number of recent studies on firms' export experimentation and learning by explicitly investigating how the introduction of a new simplified export mode can influence these activities (see, e.g., Alborno et al., 2013; Eaton et al., 2014; Arkolakis et al., 2015; and Timoshenko, 2015a, 2015b; Monarch and Schmidt-Eisenlohr, 2016).

Fourth, we shed new light on how special trade regimes influence firms' export behavior by exploring an entirely new scheme around the posts that exploits their broad geographical coverage to make it easier for firms to get their products to the shipping points and of its position in the logistic chain to facilitate the trade administrative process these companies have to go through (see, e.g., Schminke and van Biesebroeck, 2013; Defever and Riaño, 2015; and Carballo et al., 2016). Fifth, we provide the incipient postal economics literature that looks at posts from different angles with a trade perspective, in particular, by formally analyzing whether and how posts actually serve as trade facilitators (see, e.g., Caron and Ansón, 2008; Chong et al., 2014; and Castillo et al., 2014).

Finally, given its intensive use of posts and couriers, our paper is also linked to those incipiently focusing on e-commerce (see, e.g., Lendle et al., 2015; Chen and Wu, 2015a, 2015b).

The remainder of this paper is organized as follows. Section 2 describes Peru's *Exporta Fácil* program. Section 3 discusses how posts can affect entry into export markets, experimentation, and learning to provide a conceptual framework to our empirical approach. Section 4 describes the dataset. Sections 5 and 6 present empirical facts and estimation results, and Section 7 concludes.

2 The *Exporta Fácil* Program

Under a regular export regime, exporters generally have to fill in several documents and a full customs export declaration in particular; take their goods to the customs facilities or hire a company to do so and incur in the respective costs; use the services of customs brokers to deal with the customs procedures also at a cost; and identify and contract with a freight company to ship these goods to their final destination abroad. Figures 2 and 3 (left panel) show a typical regular export declaration in Peru

(DUA for its name in Spanish – *Declaración Única de Aduanas*) and the location of the customs offices in the country, respectively.

In July 2007 the Peruvian government launched the *Exporta Fácil* program (see SUNAT, 2009). This program aims to facilitate trade by streamlining administrative procedures for exports shipped by posts that meet certain conditions (i.e., shipments up a certain size). While all formal firms (i.e., registered with Perú's tax agency SUNAT) can export under the program, it is explicitly targeted to small and medium size enterprises –SMEs– (see SUNAT, 2015).

The scheme primarily consist of a reduction in the number of forms to be completed, a simplification of these forms, the implementation of a user-friendly online interface for firms which allows them to fill in the forms from their facilities. More specifically, firms have to access the SUNAT's website and complete a simplified customs document –the *Exporta Fácil* Declaration (DEF for its name in Spanish – *Declaración Exporta Fácil*), print this document and take it along the goods to be shipped to the nearest authorized office of SERPOST (*Servicios Postales del Perú*) –the public and only postal operator that can provide this service-. This spars firms the need to go to the major cities where the customs branches are located to deliver their goods.²

Figures 2 and 3 (right panel) present a standard *Exporta Fácil* Declaration and the location of SERPOST offices handling *Exporta Fácil* shipments, respectively. These figures clearly reveal that the DEF has a significantly lower number of fields to be filled in than the DUA being thus in fact a highly simplified customs declaration and that, by exploiting the existing infrastructure of the designated postal operator, *Exporta Fácil* ensures a broader geographical coverage than the standard entry points associated with regular customs branches.

In addition to less paperwork and lower transport costs, firms using the scheme also benefit from assistance from SERPOST in completing the customs procedures. More precisely, SERPOST acts on behalf of the firms before the customs and as a logistic operator, thus making the arrangement for the shipments to reach their final destinations. In other words, firms do not need to hire a customs broker and the logistic solution is already built-in in the process. More generally, the export process is much simpler under *Exporta Fácil* and requires a substantially lower degree of involvement of the exporters. This can be seen in Figure 4 which contrasts the *Exporta Fácil* procedures with the regular counterparts.

As mentioned above, shipments have to meet a number of conditions to be acceptable for processing through *Exporta Fácil*. While there are no limits in the number of DEF that firms can submit, each DEF has to comply with the following requirements: (1) the total value cannot exceed USD 5,000; (2) it may consist of several packages, but none of them can exceed 50 kilograms as per SUNAT regulation (see SUNAT, 2009) with the actual limit being 30 kilograms as established by SERPOST due to technological reasons

² If trade regulations establish that permits issued by other governmental agencies are required for the export in question, then firms have to obtain these permits and submit them together with the simplified customs declaration.

related to handling and shipping; and (3) it cannot have more than one buyer, i.e., firms must submit as many DEF as the buyers they are selling to.

Overall, from a modeling point of view, *Exporta Fácil* can be considered to reduce the export entry sunk cost, which here primarily correspond to those associated with the learning of the trade-related administrative regulations and procedures, as well as the per-period fixed costs, which essentially take the form of minimum freight, insurance, and customs brokerage charges and expenditures linked to paperwork and monitoring of foreign customs operations. We will discuss this in depth in the next section.

3 How Can *Exporta Fácil* Affect Firms' Exports?

In order to explain the way *Exporta Fácil* can affect firms' exports we can make use of existing trade models featuring productivity heterogeneity and fixed costs extended to encompass the role of intermediaries along with the idiosyncrasies of small firms producing highly differentiated goods such as Peruvian artisan cloth and jewelry producers.

In standard trade models the least productive firms do not enter export markets because their level of productivity does not allow for the sufficient scale to overcome fixed costs of entry (see Melitz, 2003). Intermediaries can reduce these fixed entry costs and thereby lower the export entry threshold by taking advantage of their scope to spread them over multiple firms' shipments, possibly at the price of additional variable costs (see Akerman, 2010; Ahn et al., 2011; Bernard et al., 2014).³ Specifically, different from individual firms, intermediaries can spread the costs of resources and expertise required for supply chain management, in general, filling the appropriate export and customs documentation and handling the logistics of the shipments, in particular, over several firms, products, and destinations.

In this setting, depending on the fixed direct and indirect export costs, variable trade costs, and productivity levels, firms can enter foreign markets directly, can enter these markets indirectly through intermediaries, or cannot enter at all. Given that the fixed costs incurred when exporting directly (f_x) are higher than the fixed costs incurred when exporting indirectly through intermediaries (f_i), the most productive firms choose direct exports, less productive firms enter foreign markets through intermediaries, and the least productive firms only supply the domestic markets.⁴

Assume that, as in Bernard et al. (2011), the fixed cost of direct exporting a product p in sector s to destination country c is $f_x = f_g + f_c + f_s + f_{cp}$, where f_g is global fixed cost that all firms incur when

³ Alternative theories and empirical evidence emphasize the role of trade intermediation in solving information frictions. See, for example, Rauch and Trindade (2002), Rauch and Watson (2004), Petropoulou (2008), and Antras and Costinot (2011).

⁴ Akerman (2010) shows that if intermediaries charge a markup over the purchase price to supply a product on the foreign market, then export sales and operational profits are lower when intermediated instead of direct exported. On the other hand, because they spread fixed costs over many exports, intermediaries provide the advantage of greater scope.

exporting independent of the destination and product; f_c is a fixed export cost that all firms incur when exporting to country c regardless of the product (e.g., some destinations are more difficult to enter than others due to more stringent import regulations, distribution networks, or, information frictions); f_s is a fixed export cost that all firms incurred when export any product in sector s regardless of the destinations (e.g., sectors differ in terms of how demanding are the regulations and procedures their products are subject to and the information barriers their trade is confronted with); and f_{cp} is a product-destination-specific fixed export cost.

The larger is the share of the idiosyncratic fixed costs f_{cp} in total fixed costs f_x , the lower are the margins to exploit economies of scope through intermediaries. This is most likely to be the case for specialty, highly differentiated products from small firms, which are particularly demanded in destinations that value their quality. As such, these products are often designed and tailored to individual customers, thus requiring direct communication between buyers and sellers and sample shipping for design and features' verification and adjustment purposes. This may be costly to facilitate for standard intermediaries.

This is precisely where a program such as *Exporta Fácil* can help. As referred to above, this program simplifies export documents and allows posts to take over their management as well as the shipping logistics for small shipments (including samples), especially from small firms (see Section 4), but leave the communication of product details to sellers and buyers. *Exporta Fácil* can therefore reduce the fixed export costs below that corresponding to indirect export through intermediaries, especially for such shipments of highly differentiated products (i.e., $f_x > f_i > f_{EF}$). As a consequence, some small firms that were excluded from foreign markets due to the high fixed costs associated with direct exports or the markup charged by intermediaries over the purchase price realized by the producing firm can now enter these markets. Furthermore, some small firms may switch from exporting indirectly through intermediaries to become direct exporters. Given that the program eliminates the double markup (i.e., producer and intermediary), this can be expected to result in increased export revenues.

Why is it possible that firms will enter the export market with postal exports, but could not enter through intermediaries or direct exports? Holmes and Stevens (2014) show that the smallest firms may be small not due to low levels of productivity, but due to the fact that they produce highly specialized products. As we shall see below, in the case of Peru, this would typically be producers of artisan apparel, jewelry, and similar goods. These products are highly differentiated and therefore realize high mark-ups, but they are produced at very low scale. In this case, the low scale combined with high fixed cost eliminates the possibility to direct export. The double mark-up reduces the benefits of intermediation, because the intermediary charges a high mark-up over a product that already commands a relatively high mark-up.

By helping small specialized firms penetrate international markets, *Exporta Fácil* can generate significant benefits. New-to-export firms must generally acquire export-specific knowledge and particularly learn the appeal of their products in specific destination (see Johanson and Vahlne, 1997; Artopolous et al., 2013; and Timoshenko, 2015a). By reducing the entry barriers to these markets and thereby making it easier to develop export capabilities and add and drop products, *Exporta Fácil* can facilitate experimentation and such export learning.

Learning of own export profitability and market-specific demand for particular products through this mode can, in turn, substantially affect firms' export outcomes. Specifically, it can translate into higher initial regular (i.e., non- *Exporta Fácil*) export values. In addition, experience gained through *Exporta Fácil* may result in higher survival rates of subsequent regular exports (see Albornoz et al., 2013). Further, learning can lead to spillovers. Thus, information generated through these export activities can disseminate to other firms producing similar goods especially when they collocate with *Exporta Fácil* users and may therefore favor the internationalization of additional firms (see, e.g., Koenig, 2009; Koenig et al., 2010).⁵

4 Data and Descriptive Evidence

Our dataset consists of four databases kindly provided by Peru's tax agency SUNAT, Peru's national export promotion organization PROMPERU, and Peru's public postal operator SERPOST. The first database includes transaction-level export data from 1999 to 2014. This database covers all regular export (RE) transactions, i.e., all shipments not processed under simplified export regimes. Each record includes a firm's ID, the product code (6-digit HS), the customs office (port/airport/land border) through which the shipment exists Peru, the destination country, the transport mode, the export value in US dollars, and the quantity (weight) in kilograms.⁶ The second database consists of all export transactions processed since the inception of the program and therefore covers the period 2007-2014. This database shares several fields with the previous one –i.e., crucially firm, product, and destination–, so that their data can be easily combined. Third, we have firm-level data on employment, location (municipality), sector of activity, and starting date.⁷ Firms are also identified by the same ID in this case, so that this dataset could be easily merged with the former two. Finally, SERPOST furnished us with a list of postal offices that

⁵ For large firms the scheme may be interesting because it facilitates small emergency shipments in case parts are missing or demand is higher than expected (see Hummels and Schaur, 2010). We provide evidence related to this mechanism in an appendix which is available from the authors upon request. An interpretation of these services consistent within the framework of specialized products is that they are differentiated in the ability to arrive on time exactly when needed via post-facilitated export procedures.

⁶ Raw data are at the 10-digit HS level. However, given the changes in product classifications over our sample period, we aggregate data at the 6-digit HS level to properly identify new products.

⁷ Peru is administratively organized in 25 departments. These departments are, in turn, subdivided in provinces (195 in total) comprising several municipalities (1,841 in total). Municipalities are the smallest political-administrative division and are required to have a minimum of 3,500 inhabitants.

handle *Exporta Fácil* shipments that inform their exact location and the precise date they began to operate with the scheme.

As discussed above, usage of *Exporta Fácil* is subject to factual and regulatory constraints. First, the program has been especially designed with the small firms in mind. As shown in the upper panel of Table 1, virtually all *Exporta Fácil* users have 50 employees or less so that, according to the firm classification used in Peru, can be categorized as small firms (see Volpe Martincus and Carballo, 2008). Second, the value of each shipment cannot exceed USD 5,000. Figures in the lower panel of Table 1 reveal that more than half of the regular exporters have median value of shipments above this amount every year. Third, all *Exporta Fácil* exports are air-shipped.

We therefore restrict our sample to small firms whose shipments have a median value below USD 5,000 and are transported by plane. This helps create more comparable groups of regular and *Exporta Fácil* exporters as top exporters tend to be several orders of magnitude larger than the typical exporter and several leading products are heavy commodities such as minerals and metals that are typically shipped by sea. In robustness check exercises, we additionally limit the sample to firms in the primary and manufacturing sectors to avoid including intermediaries, which are present among smaller firms (see Volpe Martincus and Carballo, 2008).⁸

Table 2 presents the share of air-shipped exports by small firms with less than 5,000 USD median shipments in Peru's total foreign sales and that of *Exporta Fácil* in the former. Admittedly and unsurprisingly given the program's target, our working sample accounts for small share of total export values but it amounts to around one third of the total number of exporters and product-destination combinations and more than 50% of the total number of exported products and export destinations (see first panel of Table 2). While again only a small share of the export values has been processed through *Exporta Fácil*, this channel is responsible for approximately one quarter of the respective exporters and products, for more than three quarters of the respective destinations, and one fifth of the respective product-destination combinations (see second panel of Table 2). Further, *Exporta Fácil* exporters make up almost 40% of the total number of new exporters in Peru every year and *Exporta Fácil* is involved in destination innovations for the country as whole being its share 66%.

It is worth mentioning that the relative importance of *Exporta Fácil* exhibits substantial variation across sectors. This can be clearly seen in Figure 5 which shows the share of *Exporta Fácil* in the former aggregates by HS2 Chapters. *Exporta Fácil* is a relevant export channel in sectors such as other base metals (i.e., powders) (Chapter 81); natural or cultivated pearls, precious or semi-precious stones, precious metals, and imitation of jewelry (Chapter 71); works of art, collectors' pieces, and antiques (Chapter 97); and wool, fine or coarse animal hair, horsehair yarn, and woven fabrics (Chapter 51), but does not play

⁸ The results of these robustness check exercises confirm all main findings reported in this paper and are available from the authors upon request.

any role in sectors such as explosives, arms and ammunitions (Chapter 93); nickel, lead, and zinc (Chapters 75, 78, and 79); mineral fuels (Chapter 27); live animals (Chapter 1); meat (Chapter 2); pulp of wood (chapter 47); and residues and wastes from food industries (Chapter 23). This is in line with what can be expected.

Table 3 characterizes the average and the median *Exporta Fácil* and regular exporters. Firms using *Exporta Fácil* are clearly smaller in terms of export values and number of employees, are less diversified in terms of products but similarly diversified (or more based on the mean) in terms of destinations, and tend to be more located in cities other than country's capital Lima. Figure 6 shows the distribution of both *Exporta Fácil* and regular exporters across regions other than the capital. These distributions exhibit clear differences. There are proportionally more *Exporta Fácil* firms in the Sierra region (e.g., Cajamarca, Cusco, and Junin) and non-central coastal departments (e.g., Lambayeque and La Libertad).⁹ Such geographical dispersion corresponds to that of firms that are highly specialized and face higher trade costs or sell niche products that depend on local specialized supplies as reported in Holmes and Stevens (2014). Interestingly, the aforementioned spatial pattern is also consistent with that of SERPOST offices shown in Figure 3. Also worth noting in this regard, the number of exporting municipalities increased along that of these offices (see Figure 7).

In Table 4 we report the main products and destinations and their respective shares in total *Exporta Fácil* exports in our sample from 2007 to 2014. The upper panel of the table highlights that exports from firms using *Exporta Fácil* mainly consist of highly differentiated and specialized products such as apparel and jewelry along with toys, ceramic products, and works of art. Interestingly, the first two were among the most important Chinese export products subject to intermediation in Hong Kong (see Feenstra and Hanson, 2004) and for which retailers and wholesalers play a major role in US imports (see Bernard et al., 2011). Selected regular exports exhibit similar specialization. Their foreign sales are also essentially composed of apparel and jewelry and, to less extent, of printed books and optical instruments. This is again consistent with activity patterns across firms' groups within given sectors (i.e., larger standardized good producers vs. smaller specialty good producers) reported in Holmes and Stevens (2014).

There is a key difference, though. Mass-produced apparel and jewelry may be exported through regular channels, whereas specialized products fall into the quantity and weight limits of the postal exports to take advantage of the associated lower trade costs. This is illustrated in the middle panel of Table 4, which reports the share of the most important product in a given sector by export mode. Thus, shawls, scarves, mufflers, mantillas, and veils (along with jerseys, pullovers, cardigans, waist-coats and

⁹ Geographically, Peru can be seen as comprising three natural regions: the *Costa* (coast), the *Sierra* (mountains), and the *Selva* (the Amazon region). The *Costa* region comprises the following departments: Callao, Ica, La Libertad, Lambayeque, Lima, Moquegua, Piura, Tacna, and Tumbes; the *Sierra* region comprises the following departments: Ancash, Apurimac, Arequipa, Ayacucho, Cajamarca, Cusco, Huancavelica, Huánuco, Junín, Pasco, and Puno; and the *Selva* region comprises the following departments: Amazonas, Loreto, Madre de Dios, San Martín, and Ucayali.

similar articles, knitted or crochet; gloves, mittens and mitts of wool knitted; and woman's or girls' coats of wool knitted) are prominent among *Exporta Fácil* exports of apparel goods, while t-shirts, singlets and other vests of cotton (along with women's or girls' blouses or shirts of man-fiber and women's or girls' blouses or shirts of cotton) are only marginally present, if anything, in these exports. The opposite holds for regular exports of apparel products. Table A1 in the Appendix complements the evidence presented in Table 4 by listing the most important *Exporta Fácil* and regular export products in selected sample years along with their respective shares in total export values and number of firms. Figures in this table reaffirm the specialty nature of the goods shipped through *Exporta Fácil*.

Developed country markets, which have a relatively higher demand for differentiated goods, account for a larger share of *Exporta Fácil* exports than of regular exports. While on average these markets make up more than 70% of the former, they are only responsible for less than 40% in the latter (see the lower panel of Table 4). Hence, *Exporta Fácil* seems to be channel for small firms to export highly differentiated goods produced in small batches to more sophisticated and demanding destinations.

5 *Exporta Fácil* and Regional Exports

As shown in Section 4, the number of Peruvian municipalities registering exports increased with the number of postal offices authorized to receive and process shipments through *Exporta Fácil*. In this section, we formally assess whether *Exporta Fácil* contributed to the expansion and diversification of municipal exports. More specifically, we estimate the following equations:

$$\ln X_{mpdt} = \alpha EF_{mpdt} + \lambda_{mpd} + \delta_{dt} + \varepsilon_{mpdt} \quad (1)$$

$$\ln X_{mpdct} = \alpha EF_{mpdct} + \lambda_{mpdc} + \delta_{dt} + \theta_{ct} + \varepsilon_{mpdct} \quad (2)$$

where X denotes exports; EF is a binary indicator that takes the value of one if *Exporta Fácil* is used and zero otherwise; m , p , d , c , and t stand for municipality, province, department, destination country, and year, respectively; $\lambda_{mpd(c)}$ is a set of municipality(-province-department)(-destination country) fixed effects that accounts for time-invariant factors that lead to systematic differences in municipal(-destination) exports; δ_{dt} (θ_{ct}) is set of department-year (destination-year) fixed effects that controls for time-varying factors that generates different export trajectories across departments (destinations); and ε is the error term.

Given that the actual use of *Exporta Fácil* can be endogenous to exports, we instrument it with the presence of postal offices that are entry points for *Exporta Fácil* in the province to which the municipality in question belongs in the equation estimated on municipality-year level data and with this variable interacted with an indicator of the share of air transportation in Peru's total exports to the destination

(recall that *Exporta Fácil* exports are air-shipped) in the equation estimated on municipality-destination-year level data.¹⁰ More precisely, the respective first stage equations are as follows:

$$EF_{mpdt} = \sigma PO_{pdt} + \lambda_{mpd} + \delta_{dt} + \varepsilon_{mpdt} \quad (3)$$

$$EF_{mpdct} = \sigma PO_{pdt} + \phi PO_{pdt} * Air_{c2006} + \lambda_{mpdc} + \delta_{dt} + \theta_{ct} + \varepsilon_{mpdct} \quad (4)$$

where PO is a binary indicator that takes the value of one if there is a SERPOST office dealing with *Exporta Fácil* and zero otherwise and Air is a binary indicator that takes the value of one if the share of air-shipping in Peruvian total exports to the destination in question is above the median of the respective distribution across destinations in the year before the inception of *Exporta Fácil*, 2006.

Columns 1-3 and 5-7 of Table 5 present ordinary least squares, reduced-form, and instrumental variable estimates of these equations along those of alternative versions thereof in which the dependent variables are other export outcomes and the specification tests. The F test statistics are always above 10, thus suggesting that the instruments are correlated with actual utilization of *Exporta Fácil* after netting out the influence of other relevant covariates.

It should be noted that instrumental variables estimates are generally larger than their ordinary least squares counterparts. In this case, ordinary least squares estimates on export values aggregated at this level are downward bias because *Exporta Fácil* mainly facilitates entry of small (firm-level, destination-level, and product-level) exports (see also Section 6). In particular, these new export flows are smaller than the respective incumbents, thus resulting in a decrease in the average flow size. Instrumental variables correct that bias and yields higher estimated effects. Further, the size of the effects may reflect that these are heterogeneous across municipalities. In this case, these effects correspond to the Local Average Treatment Effect (LATE) and capture those on compliers, e.g., municipalities in which *Exporta Fácil* was used because a postal office handling shipments under this scheme was opened but would otherwise not have seen its utilization (see Angrist and Imbens, 1994).

In addition, Columns 4 and 8 of Table 5 show estimates obtained from placebos whereby we over-impose the actual utilization of *Exporta Fácil* in 2007-2014 to the period 1999-2006 (e.g., if *Exporta Fácil* was utilized in a municipality from 2010 to 2014, we assume that such utilization occurred from 2002 to 2006).¹¹ Reassuringly, according to these falsification exercises, there were no significant differences in export trends between *Exporta Fácil* and non-*Exporta Fácil* municipalities before this program was implemented. This holds for virtually all outcome variables.

¹⁰ Given the relatively small size of Peruvian municipalities, it is highly likely that firms use the services of an *Exporta Fácil* office located in a different municipality but in the same province. This is why we define the office indicator at the province level.

¹¹ Results are identical if we instead apply the utilization's time profile over the period 2006-2013 to 1999-2006. These results are available from the authors upon request.

Overall, estimates indicate that *Exporta Fácil* has been associated with larger municipal exports. This increase in exports can be traced back to an increase in the number of destinations reached and especially the number of firms that export. In contrast, no distinguishable effects are observed on the respective intensive margins. Further, some municipalities appear to have entered new destinations thanks to *Exporta Fácil*. To sum up, in line with what could be expected from such a program (see Sections 3 and 4), *Exporta Fácil* has helped municipalities join foreign markets and expand as well as diversify their exports.

6 Firms' Export Decisions, Experimentation, and Learning through the Lenses of *Exporta Fácil*

This section explores how the streamlining of export procedures and the provision of intermediation services associated with *Exporta Fácil* affect export decisions, experimentation, and learning, both within and across firms.

Hypothesis 1: Exporta Fácil exporters start smaller than their regular peers

As discussed above, *Exporta Fácil* is likely to imply a reduction in both sunk entry and per period fixed costs. This would translate into a lower size threshold above which firms can export and accordingly in lower initial firm export levels.¹² If this is the main channel by which postal exports affect trade, then we would expect that postal exports are associated with lower initial export values.¹³

To examine this empirically we estimate the following equation on new export flows, i.e., flows in their first year of appearance:

$$\ln X_{zt} (|X_{zt-1} = X_{zt-2} = \dots = X_{z1999} = 0) = \alpha EF_{zt} + \beta Both_{zt} + \{FE - \tau_t, Controls\} + \varepsilon_{zt} \quad (5)$$

where $z = \{\text{firm, firm-product-destination}\}$; X denotes exports; EF and t have been previously defined; $Both$ is a binary indicator that takes the value of one if both the *Exporta Fácil* and the regular export channels are used and zero otherwise; and $\{FE - \tau_t, Controls\}$ corresponds to alternative sets of fixed effects including location (department or municipality) and (ISIC 2-digit or 4-digit) sector of activity fixed effects combined with year fixed effects τ_t or firm-level control variables, i.e., number of employees and age.

The estimation results are reported in Table 6. These results indicate that initial pure *Exporta Fácil* exporters can enter smaller than their regular peers, both at the firm-level and at the firm-product-

¹² Entry export values have been previously used in the literature as a proxy for sunk export costs (e.g., Freund and Pierola, 2010). Bernard and Jensen (2007) show that, in steady state, high sunk entry costs are associated with low entry and exit rates. Consistently, Bernard et al. (2014) utilize the minimum of the entry and exit rates as a proxy for product-level sunk costs.

¹³ On the other hand, the literature on intermediation shows that export flows are lower for intermediates due to the double markup rule of prices. In that case, if *Exporta Fácil* leads firms to switch from intermediaries to postal exports, then we expect an increase in export values. Unfortunately, our data do not allow us to identify changes in intermediation status for regular exports. Hence, initial regular exports correspond to both those which are entirely new and those switching from being previously intermediated.

destination level and even within narrowly defined sectors and geographical areas and netting out time-varying product or destination factors. This holds both in terms of values and volume (weight). Note that, on the other hand, *Exporta Fácil* exports have higher unit values even within product-destination combinations. Overall, these results imply that postal exporters help small firms such as highly differentiated, specialty product producers at low scale penetrate and operate in international markets.¹⁴

Fixed entry export costs can vary across sectors and destinations (e.g., Das et al., 2007; Moxnes, 2010; and Eaton et al., 2011). It can be then expected that the entering export level and, in particular, that the reduction in that level made it possible by *Exporta Fácil* differ across them. We have therefore also estimate Equation (5) allowing for different *Exporta Fácil* effects on initial exports across (main) sectors (i.e., HS2 products) and destination. According to these estimates, there are significant differences in how smaller firms can start in these export markets thanks to *Exporta Fácil*. Thus, *Exporta Fácil* is associated with significant reductions in initial export values particularly in sectors such as apparel, ceramic products, and musical instruments and destinations such as Austria, Brazil, Mexico, Netherlands, Sweden, and the United States.¹⁵

Hypothesis 2: Exporta Fácil exporters experiment more than their regular peers

Firms introduce new products to new markets under a significant amount of uncertainty. The literature discusses several mechanisms that firms employ to evaluate foreign markets. If *Exporta Fácil* lowers trade costs especially for small volumes, then the associated postal services lend themselves to testing new markets. *Exporta Fácil* is likely to facilitate the introduction of new export products or reaching new export destinations. To examine this we regress a binary indicator that takes the value of one if the export flow is new (either for the firm or the country as a whole) on the *EF* indicator and a set of fixed effects that varies according to the level of the data on which the equation is estimated. Formally, we estimate:

$$I_{X_{zt}}(|X_{zt-1} = X_{zt-2} = \dots = X_{z1999} = 0) = \alpha EF_{zt} + \{FE - \tau_t, Controls\} + \varepsilon_{zt} \quad (6)$$

where $I_{X_{zt}}(|X_{zt-1} = X_{zt-2} = \dots = X_{z1999} = 0)$ is a binary indicator that takes the value of one if z corresponds to new exports and zero otherwise.

¹⁴ It has been shown that differences in the precise timing within a year in which export flows start may substantially affect measurement of total exports in the first year and accordingly that of the export growth rate between the first and the second year (see Bernard et al., 2015). In our setting, it might be the case that, due to seasonality reasons, *Exporta Fácil* and regular products are exported in different months, which would create a systematic bias in the measurement of the first export. Hence, in an alternative set of estimations we control for the initial month, i.e., the month in a given year in which the first export was registered, or use the average shipment size (i.e., export value or volume divided by the number of shipments) as the dependent variable. The results of these estimations do not differ from those presented in the text. These results are available from the authors upon request.

¹⁵ These estimates are available from the authors upon request.

Estimates of these equations are shown in Table 7. These estimates suggest that the use of the *Exporta Fácil* modality is systematically associated with the addition of products or destinations. This remains true even after accounting for potential confounding factors through control variables or appropriate sets of fixed effects such as municipality-year and sector-year fixed effects in the estimation at the firm-level and firm-year fixed effects and product-destination-year fixed effects in the estimation at the firm-product-destination-level.

Further, if testing is more prominent among *Exporta Fácil* exporters, then their entry and exist rates should be higher in given export markets. In order to corroborate whether this is the case, we estimate the following equations:

$$\text{Entry Rate}_{hzt} = \alpha EF_{hzt} + \{FE - \tau_t\} + \varepsilon_{hzt} \quad (7)$$

$$\text{Exit Rate}_{hzt} = \alpha EF_{hzt} + \{FE - \tau_t\} + \varepsilon_{hzt} \quad (8)$$

where h denotes export mode.

Table 8 reports the estimation results. Consistent with the testing hypothesis, these results indicate that *Exporta Fácil* exports have both higher entry rates and higher exit rates.¹⁶

For welfare and policy benefits, this raises the question of whether these small firms are able to learn and grow to be stable exporters that can take advantage of international markets. We examine this below.

Hypothesis 3: Exporters learn from their Exporta Fácil experience. Those who become regular exporters start larger, survive longer, grow faster, and diversify destinations.

The previous section shows that postal exports help small firms to enter the export market. We now examine if firms that enter small through postal exports can learn to become stable exporters who grow and diversify. More specifically, we compare the initial level, the survival rate, the growth rate, and the destination extensive margin of new regular exports that were previously exported through *Exporta Fácil* with those of counterparts directly exported through the regular channel. In so doing, we estimate:

$$\ln X_{zt}^{RE} (|X_{zt-1}^{RE} = X_{zt-2}^{RE} = \dots = X_{z1999}^{RE} = 0) = \alpha EF_{zt-1} + \{FE - \tau_t, Controls\} + \varepsilon_{zt} \quad (9)$$

$$I_{X_{zt+1}^{RE}} (|I_{X_{zt}^{RE}} = 1, I_{X_{zt-1}^{RE}} = 0 = \dots = I_{X_{z1999}^{RE}} = 0) = \alpha EF_{zt-1} + \{FE - \tau_t, Controls\} + \varepsilon_{zt} \quad (10)$$

$$\left[\frac{X_{zt+1}^{RE} - X_{zt}^{RE}}{(X_{zt}^{RE} + X_{zt+1}^{RE})/2} \right] (|X_{zt-1}^{RE} = X_{zt-2}^{RE} = \dots = X_{z1999}^{RE} = 0) = \alpha EF_{zt-1} + \{FE - \tau_t, Controls\} + \varepsilon_{zt} \quad (11)$$

$$I_{D_{zt+1}^{RE,-i}} (|I_{D_{zt}^{RE,i}} = 1, I_{D_{zt-1}^{RE}} = 0 = \dots = I_{D_{z1999}^{RE}} = 0) = \alpha EF_{zt-1} + \{FE - \tau_t, Controls\} + \varepsilon_{zt} \quad (12)$$

¹⁶ Consistent with this, (initial) *Exporta Fácil* exports have lower survival rates both at the firm and the firm-product-destination levels. Estimation results showing this pattern are available from the authors upon request.

where $I_{X_{zt+1}}^{RE}$ ($I_{X_{zt}}^{RE} = 1, I_{X_{zt-1}}^{RE} = 0 = \dots = I_{X_{z1999}}^{RE} = 0$) is a binary indicator that takes the value of one if z corresponds to new regular exports in t that is still present in $t + 1$ and zero otherwise and $I_{D_{zt+1}}^{RE,-i}$ ($I_{D_{zt}}^{RE,i} = 1, I_{D_{zt-1}}^{RE} = 1 = \dots = I_{D_{z1999}}^{RE} = 0$) is a binary indicator that takes the value of one if a new regular destination $-i$, different from current regular destination i , is incorporated and zero otherwise.

Estimates of these equations are reported in Tables 9-12. Regardless of the set of conditioning fixed effects used, these estimates reveal that previous export experience through *Exporta Fácil* tends to be associated with both larger initial regular exports and lower failure rate of these exports both at the firm and at the firm-product-destination level. Interestingly, unit values of new regular exports with *Exporta Fácil* antecedents are higher than those exported for the first time altogether (see Tables 9 and 10, respectively). In addition, while regular foreign sales from firms that previously used *Exporta Fácil* do not appear to grow faster than their counterparts that did not resort to this scheme in the past, there is some evidence indicating that firm-product-destination exports with *Exporta Fácil* antecedents have higher growth rates than those lacking this antecedent (see Table 11). Moreover, exporters who became regular after resorting to the *Exporta Fácil* channel seem to be better prepared to diversify their destinations (see Table 12).

Again, this is consistent with the intuition that especially small firms producing highly differentiated, small batched, high value-to-weight products and facing costly intermediation due to double markups take advantage of the postal export regime to strengthen their competitive position and expand in foreign markets.

Hypothesis 4: There are local spillovers from Exporta Fácil exports.

It is possible that export knowledge generated when venturing abroad through *Exporta Fácil*, although smaller relative to that derived from direct export activities, may disseminate to other firms, which can then in turn become regular exporters. To investigate the existence of such spillovers from the experimentation facilitated by *Exporta Fácil*, we regress a binary indicator of regular exports at the firm-product-destination level in a given year on a binary indicator of other firms' use of *Exporta Fácil* previous year along with alternative sets of controls and fixed effects as follows:

$$\begin{aligned}
 I_{X_{zt}}^{RE} (I_{X_{zt-1}}^{RE} = I_{X_{zt-2}}^{RE} = 1 = \dots = I_{X_{z1999}}^{RE} = 0) \\
 = \alpha EF_{zt-1} + \gamma EF_{z^{-1}t-1} + \{FE - \tau_t, Controls\} + \varepsilon_{zt}
 \end{aligned} \tag{13}$$

where EF_{zt-1} is a binary indicator that takes the value of one if the firm used *Exporta Fácil* to export the same product to the same destination the previous year and zero otherwise and $EF_{z^{-1}t-1}$ is a binary

indicator that takes the value of one if there are other firms that used *Exporta Fácil* to export the same product to the same destination the previous year and zero otherwise and can be geo-reference, e.g., it may refer to firms located in the same municipality, firms located in other municipalities of the same province, or firms located in other departments.

Evidence based on the estimates of these equations reported in Table 13 seems to suggest that trade facilitation induced by *Exporta Fácil* has indeed had positive indirect effect, thus benefiting export of firms others than those of the users themselves. In particular, firms located in the same municipality that peers that exported a given product to a given destination through *Exporta Fácil* are more likely to start exporting this product-destination combination via the regular channel.

7 Concluding Remarks

Consistent with the WTO Agreement on Trade Facilitation reached in Bali, many countries around the world are putting more emphasis on removing soft trade barriers such as those associated with customs procedures and administrative processing of trade flows in general to facilitate trade in addition to operating on more traditional impediments such as lowering tariffs or quotas.

Most of the theory in international trade that highlights the exporting success of large firms is disconnected from trade facilitation policies whose design makes them particularly relevant for small firms. In this paper, we combine recent academic theoretical and empirical results related to export intermediation and new insights on the sources of firm heterogeneity with a recent policy to facilitate the export process directly aimed at small exports.

Intermediates spread high fixed costs of exporting over multiple firms and exports to realize economies of scope and allow small firms to realize benefits from international markets. *Exporta Fácil* allows postal offices to take over some of the intermediation services along with streamlined export procedures. This is especially relevant for small firms selling specialty products as described in Holmes and Stevens (2014).

In this paper, we employ highly detailed transaction level data from Peru to show that this policy is effective. We find that regional exports expanded as a consequence of *Exporta Fácil*, primarily thanks to the entry of new firms into foreign markets. These firms start to export under *Exporta Fácil* with lower values and can thereby realize the benefits from international markets sooner. Our results also suggest that the scheme allows firms to test the destination demand by shipping small quantities at low costs via posts, thus helping them introduce new products and entering new destination markets. Next, we provide evidence for dynamic effects. Firms that begin as postal exporters realize high trade value when they become regular exporters, tend to be more stable, grow faster, and diversify their destinations. Furthermore, there seems to be local external effects: non-*Exporta Fácil* user appear to benefit from the

export knowledge generated by *Exporta Fácil*-users they are colocated with to start new regular exports. This provides evidence on the benefits and the mechanisms of trade facilitation programs that have not been examined across the firms' distribution.

References

- Ahn, J.; Kandelwhal, A.; and Wei, S.J., 2011. The role of intermediaries in facilitating trade. *Journal of International Economics*, 84, 1.
- Akerman, A., 2010. A theory of the role of wholesalers in international trade based on economies of scope. Working Paper 2010:1, Department of Economics, Stockholm University.
- Albornoz, F.; Calvo Pardo, H.; Corcos, G.; and Ornelas, E., 2012. Sequential exporting. *Journal of International Economics*, 88, 1.
- Angrist, J. and Imbens, G., 1994. Identification and estimation of local average treatment effects. *Econometrica*, 62, 2.
- Antràs, P. and Costinot, A., 2010. Intermediation and economic integration. *American Economic Review*, 100, 2.
- Antràs, P. and Costinot, A., 2011. Intermediated trade. *Quarterly Journal of Economics*, 126, 3.
- Arkolakis, C.; and Papageorgiou, T.; and Timoshenko, O., 2015. Firm learning and growth. Yale University, mimeo.
- Arkolakis, C. and Papageorgiou, T., 2010. Firm selection, growth, and learning. Yale University, mimeo.
- Artopoulos, A.; Friel, D.; and Hallak, J., 2013. Export emergence of differentiated goods from developing countries: Export pioneers and business practices in Argentina. *Journal of Development Economics*, 105.
- Bernard, A. and Jensen, B., 2004. Why some firms export. *Review of Economics and Statistics*, 86, 2.
- Bernard, A. and Jensen, B. 2007. Firm structure, multinationals, and manufacturing plant deaths. *Review of Economics and Statistics*, 89, 2.
- Bernard, A.; Jensen, B.; Redding, S.; and Schott, P., 2010. Wholesalers and retailers in US trade. *American Economic Review*, 100, 2.
- Bernard, A; Grazi, M.; and Tomasi, C., 2014. Intermediaries in international trade: Products and destinations. *Review of Economics and Statistics*, forthcoming.
- Bernard, A.; Massari, R.; Reyes, J.; and Taglioni, D., 2015. Exporter dynamics and partial-year effects. Dartmouth College, mimeo.
- Carballo, J.; Graziano, A.; Schaur, G.; and Volpe Martincus, C., 2016. Transit Trade. IDB, mimeo.
- Caron, J. and Ansón, J., 2008. Trade facilitation through postal networks. In Toledano, J. and Ansón, J. *Postal economics in developing countries: Post, infrastructure of the XXIst century?* UPU, Bern.
- Castillo, M.; Petrie, R.; Torero, M.; and Viceisza, A., 2014. Lost in the mail: A field experiment on crime. *Economic Inquiry*, 52, 1.
- Chen, M. and Wu, M., 2015a. International trade and the Internet: Evidence from Alibaba. George Washington University, mimeo.
- Chen, M. and Wu, M., 2015b. Earning reputation in trade. George Washington University, mimeo.
- Chong, A.; La Porta, R.; Lopez-de-Silanes, F.; and Shleifer, A., 2014. Letter grading government efficiency. *Journal of the European Economic Association*, 12, 2.
- Clotteau, N., 2010. Trade finance and the postal service. UPU, mimeo.
- Crozet, M.; Lalanne, G.; and Poncet, S., 2014. Wholesalers in international trade. *European Economic Review*, 58, C.
- Das, S.; Roberts, M.; and Tybout, R., 2007. Market entry costs, producer heterogeneity, and export dynamics. *Econometrica*, 75, 3.
- Defever, F. and Riaño, A., 2015. Protectionism through exporting: Subsidies with export share requirements in China. University of Nottingham, mimeo.
- Eaton, J.; Kortum, S.; and Kramarz, F., 2011. An anatomy of international trade: Evidence from French firms. *Econometrica*, 79, 5.
- Eaton, J.; Eslava, M.; Jenkins, D.; Krizan, C.; and Tybout, J., 2014 A search and learning model of export dynamics. Pennsylvania State University, mimeo.
- Feenstra, R. and Hanson, G., 2004. Intermediaries in entrepot trade: Hong Kong re-exports of Chinese goods. *Journal of Economics and Management Strategy*, 13, 1.

- Felbermayr, G. and Jung, B., 2011. Trade intermediation and the organization of exporters. *Review of International Economics*, 19, 4.
- Freund, C. and Pierola, D., 2010. Global patterns in exporter entry and exit. World Bank, mimeo.
- Holmes T. and Stevens J., 2014, An Alternative Theory of the Plant Size Distribution, with Geography and Intra- and International Trade, *Journal of Political Economy*, 122, 2.
- Hornok, C. and Koren, M., 2015. Administrative barriers and the lumpiness of trade. *Journal of International Economics*, 96, Supplement 1.
- Hummels, D. and Schaur, G., 2010. Hedging price volatility using fast transport. *Journal of International Economics*, Elsevier, 82, 1.
- Johansen, J. and Vahlne, J., 1997. The internationalization process of the firm – A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8.
- Koenig P., 2009. Agglomeration and the export decision of French firms. *Journal of Urban Economics*, 66, 3.
- Koenig P.; Mayneris, F.; and Poncet, S., 2010. Local export spillovers in France. *European Economic Review*, 54.
- Lendle, A.; Olarreaga, M.; Schropp, S.; and Vézina, P., 2015. There goes gravity: eBay and the death of distance. *Economic Journal*, forthcoming.
- Monarch, R. and Schmidt-Eisenlohr, T., 2016. Learning and the value of trade relationships. Federal Reserve Board, mimeo.
- Moxnes, A., 2010. Are sunk costs in exporting country-specific? *Canadian Journal of Economics*, 43, 2.
- Petropoulou, D., 2008. Information costs, networks and intermediation in international trade. CEP Discussion Paper 848.
- Rauch, J. and Trindade, V., 2002. Ethnic Chinese networks in international trade. *Review of Economics and Statistics*, 84, 1.
- Rauch, J. and Watson, J., 2004. Network intermediaries in international trade. *Journal of Economics and Management Strategy*, 13, 1.
- Roberts, M. and Tybout, J., 1997. The decision to export in Colombia: An empirical model of entry with sunk costs. *American Economic Review*, 87, 4.
- Schminke, A. and van Biesebroeck, J., 2013. Using export market performance to evaluate regional preferential policies in China. *Review of World Economics*, 149, 20.
- Superintendencia Nacional de Administración Tributaria (SUNAT), 2009. Envíos o paquetes transportados por concesionarios postales: Procedimiento específico. Exportación con fines comerciales a través del servicio postal. SUNAT, Lima.
- Superintendencia Nacional de Administración Tributaria (SUNAT), 2015. Qué es Exporta Fácil? (http://www.sunat.gob.pe/exportaFacil/que_es.htm). SUNAT, Lima.
- Timoshenko, O., 2015a. Product switching in a model of learning. *Journal of International Economics*, 95, 2.
- Timoshenko, O., 2015b. Learning versus sunk costs explanations of export persistence. *European Economic Review*, 79.
- Universal Postal Union (UPU), 2013. Development of postal services in 2013. UPU, mimeo.
- Volpe Martincus, C. and Carballo, J., 2008. Is export promotion effective in developing countries? Firm-level evidence on the intensive and the extensive margins of exports. *Journal of International Economics*, 76, 1.
- Volpe Martincus, C.; Carballo, J.; Graziano, A.; and Garcia, P., 2014. How do transport costs affect firms' exports? Evidence from a vanishing bridge. *Economics Letters*, 123, 2.

Table 1

| Number of Employees and Median Shipment Size by Exporter Type | | | | | | |
|---|---------------------|-----|---------------------|------|----------------------------|-----|
| Percentage Shares | | | | | | |
| Number of Employees | | | | | | |
| Year | Firms Using Only EF | | Firms Using Only RE | | Firms Using Both EF and RE | |
| | 1-50 | >50 | 1-50 | >50 | 1-50 | >50 |
| 2006 | N/A | N/A | 83.5 | 16.5 | N/A | N/A |
| 2007 | 100.0 | 0.0 | 82.5 | 17.5 | 100.0 | 0.0 |
| 2008 | 100.0 | 0.0 | 82.4 | 17.6 | 92.9 | 7.1 |
| 2009 | 100.0 | 0.0 | 82.8 | 17.2 | 95.2 | 4.8 |
| 2010 | 100.0 | 0.0 | 82.0 | 18.0 | 94.3 | 5.7 |
| 2011 | 99.7 | 0.3 | 82.4 | 17.6 | 92.9 | 7.1 |
| 2012 | 99.8 | 0.2 | 82.2 | 17.8 | 93.5 | 6.5 |
| 2013 | 100.0 | 0.0 | 81.2 | 18.8 | 96.5 | 3.5 |
| 2014 | 99.8 | 0.2 | 81.0 | 19.0 | 91.0 | 9.0 |

| Median Shipment Size | | | | | | |
|----------------------|---------------------|-------|---------------------|-------|----------------------------|-------|
| Year | Firms Using Only EF | | Firms Using Only RE | | Firms Using Both EF and RE | |
| | <=5000 | >5000 | <=5000 | >5000 | <=5000 | >5000 |
| 2006 | N/A | N/A | 64.1 | 35.9 | N/A | N/A |
| 2007 | 100.0 | 0.0 | 61.8 | 38.2 | 91.8 | 8.2 |
| 2008 | 100.0 | 0.0 | 57.0 | 43.0 | 90.5 | 9.5 |
| 2009 | 99.8 | 0.2 | 57.4 | 42.6 | 89.9 | 10.1 |
| 2010 | 99.7 | 0.3 | 57.1 | 42.9 | 88.5 | 11.5 |
| 2011 | 100.0 | 0.0 | 54.4 | 45.6 | 93.0 | 7.0 |
| 2012 | 100.0 | 0.0 | 50.9 | 49.1 | 88.8 | 11.2 |
| 2013 | 100.0 | 0.0 | 50.0 | 50.0 | 92.0 | 8.0 |
| 2014 | 100.0 | 0.0 | 48.9 | 51.1 | 86.0 | 14.0 |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

The upper panel of the table presents the share of *Exporta Fácil* exporters, regular exporters, and exporters using both *Exporta Fácil* and the regular channel with 1-50 employees and with more than 50 employees over the period 2006-2014. The lower panel of the table presents the share of *Exporta Fácil* exporters, regular exporters, and exporters using both *Exporta Fácil* and the regular channels whose median shipments are up to USD 5,000 and whose median shipments are larger than USD 5,000 over the period 2006-2014.

Table 2

| Selected Sample and Share of <i>Exporta Fácil</i> | | | | | | |
|---|---------|-------|----------|--------------|----------------------|--|
| Share of Selected Sample in Total Exports | | | | | | |
| Year | Exports | Firms | Products | Destinations | Product-Destinations | |
| 2007 | 0.8 | 40.6 | 48.6 | 58.2 | 38.0 | |
| 2008 | 0.8 | 45.1 | 53.8 | 64.4 | 43.4 | |
| 2009 | 0.7 | 41.5 | 55.2 | 67.2 | 39.3 | |
| 2010 | 1.0 | 41.6 | 57.6 | 71.0 | 43.2 | |
| 2011 | 1.0 | 44.1 | 57.6 | 67.6 | 42.6 | |
| 2012 | 1.0 | 38.5 | 57.2 | 68.8 | 40.1 | |
| 2013 | 0.7 | 35.6 | 56.6 | 68.4 | 37.9 | |
| 2014 | 0.7 | 35.4 | 52.1 | 69.8 | 36.2 | |
| Share of <i>Exporta Fácil</i> in Selected Sample | | | | | | |
| Year | Exports | Firms | Products | Destinations | Product-Destinations | |
| 2007 | 0.4 | 6.0 | 11.4 | 47.7 | 4.6 | |
| 2008 | 1.2 | 17.6 | 22.1 | 65.8 | 12.1 | |
| 2009 | 2.0 | 19.3 | 25.5 | 68.1 | 16.1 | |
| 2010 | 2.4 | 21.8 | 24.6 | 73.1 | 16.0 | |
| 2011 | 1.7 | 25.3 | 27.0 | 78.0 | 17.8 | |
| 2012 | 1.5 | 22.8 | 25.2 | 74.6 | 16.1 | |
| 2013 | 2.3 | 24.1 | 26.2 | 78.1 | 17.1 | |
| 2014 | 1.0 | 24.1 | 27.6 | 72.7 | 17.6 | |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

The upper panel of the table reports the percentage share of total export aggregates accounted for by the selected sample (i.e., air-shipped exports by small firms with less than 5,000 USD median shipments). The lower panel of the table reports the percentage share of total export aggregates for the selected sample (i.e., air-shipped exports by small firms with less than 5,000 USD median shipments) accounted for by *Exporta Fácil* exports.

Table 3

| Average and Median Regular (RE) and <i>Exporta Fácil</i> (EF) Exporters in the Selected Sample | | | | | | | | | |
|--|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| Average Regular (RE) and <i>Exporta Fácil</i> (EF) Exporters in the Selected Sample | | | | | | | | | |
| Variable | Exporter | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Exports | EF | 46,131.7 | 30,906.5 | 36,441.6 | 42,012.1 | 33,195.2 | 32,783.8 | 36,157.8 | 22,586.0 |
| | RE | 82,966.8 | 91,419.8 | 93,003.7 | 112,018.9 | 142,142.8 | 184,618.2 | 136,602.1 | 118,818.6 |
| Number of Products | EF | 6.4 | 5.1 | 5.9 | 5.7 | 3.9 | 4.2 | 4.3 | 3.6 |
| | RE | 8.3 | 8.1 | 8.2 | 8.7 | 9.0 | 10.1 | 9.1 | 8.3 |
| Number of Destinations | EF | 2.3 | 2.6 | 2.9 | 2.9 | 2.5 | 2.6 | 2.5 | 2.3 |
| | RE | 1.8 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 |
| Number of Product-Destinations | EF | 9.9 | 8.4 | 9.4 | 9.2 | 6.6 | 6.8 | 7.0 | 5.7 |
| | RE | 11.1 | 10.9 | 10.8 | 11.2 | 11.4 | 12.5 | 11.6 | 10.8 |
| Number of Employees | EF | 3.7 | 3.3 | 3.5 | 3.3 | 3.1 | 3.1 | 3.5 | 2.8 |
| | RE | 8.6 | 8.7 | 8.2 | 9.4 | 9.4 | 9.4 | 9.8 | 10.2 |
| Age | EF | 6.1 | 6.0 | 6.5 | 6.7 | 4.6 | 5.6 | 6.3 | 6.4 |
| | RE | 8.9 | 9.3 | 8.8 | 9.4 | 9.1 | 9.1 | 9.7 | 9.9 |
| Lima | EF | 0.8 | 0.8 | 0.8 | 0.7 | 0.6 | 0.7 | 0.7 | 0.6 |
| | RE | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| Median Regular (RE) and <i>Exporta Fácil</i> (EF) Exporters in the Selected Sample | | | | | | | | | |
| Variable | Exporter | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| Exports | EF | 2,692.0 | 1,873.0 | 4,871.0 | 3,478.0 | 1,148.0 | 1,612.0 | 1,888.0 | 792.0 |
| | RE | 9,450.0 | 9,874.5 | 11,027.0 | 12,052.5 | 12,543.0 | 16,041.0 | 14,685.0 | 15,949.0 |
| Number of Products | EF | 2.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | RE | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Number of Destinations | EF | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | RE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Number of Product-Destinations | EF | 2.5 | 2.0 | 3.0 | 2.0 | 1.0 | 2.0 | 2.0 | 2.0 |
| | RE | 4.0 | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 |
| Number of Employees | EF | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | RE | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Age | EF | 4.0 | 4.0 | 4.0 | 4.0 | 2.0 | 3.0 | 4.0 | 4.0 |
| | RE | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 7.0 | 7.0 |
| Lima | EF | 0.8 | 0.8 | 0.8 | 0.7 | 0.6 | 0.7 | 0.7 | 0.6 |
| | RE | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

The upper panel of the table presents the average export value, number of products, number of destinations, number of product-destination combinations, number of employees, age, and the share of Lima among possible locations in Peru for both *Exporta Fácil* and regular exporters. The lower panel of the table presents the median export value, number of products, number of destinations, number of product-destination combinations, number of employees, age, and the share of Lima among possible locations in Peru for both *Exporta Fácil* and regular exporters. Sample: Air-shipped exports by small firms with less than 5,000 USD median shipments.

Table 4

Exporta Fácil and Regular Exports: Main Products and Main Destination, Selected Years

Main Product Categories

| Rank | 2007 | | | | 2010 | | | | 2013 | | | |
|------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| | EF | | RE | | EF | | RE | | EF | | RE | |
| | HS2 | Share |
| 1 | 71 | 25.77 | 61 | 59.61 | 61 | 27.22 | 61 | 53.36 | 61 | 36.17 | 61 | 57.05 |
| 2 | 61 | 18.27 | 62 | 9.97 | 71 | 23.77 | 62 | 15.24 | 71 | 18.33 | 62 | 10.70 |
| 3 | 64 | 12.26 | 3 | 3.04 | 95 | 6.85 | 84 | 5.97 | 42 | 7.67 | 85 | 3.59 |
| 4 | 13 | 9.12 | 71 | 2.69 | 62 | 6.18 | 3 | 1.99 | 95 | 6.39 | 71 | 3.52 |
| 5 | 42 | 7.13 | 85 | 2.45 | 42 | 5.86 | 71 | 1.99 | 62 | 4.18 | 84 | 3.28 |
| 6 | 62 | 6.41 | 84 | 2.03 | 96 | 3.65 | 88 | 1.88 | 21 | 3.84 | 88 | 1.67 |
| 7 | 65 | 5.70 | 43 | 1.48 | 65 | 3.60 | 63 | 1.57 | 65 | 3.64 | 63 | 1.50 |
| 8 | 63 | 5.22 | 65 | 1.47 | 69 | 3.15 | 65 | 1.50 | 63 | 2.28 | 43 | 1.41 |
| 9 | 95 | 1.84 | 7 | 1.18 | 63 | 2.45 | 43 | 1.45 | 69 | 1.73 | 3 | 1.26 |
| 10 | 58 | 1.44 | 42 | 1.11 | 97 | 2.07 | 85 | 1.31 | 96 | 1.45 | 90 | 1.26 |
| 11 | Others | 6.83 | Others | 14.96 | Others | 15.20 | Others | 13.74 | Others | 14.30 | Others | 14.76 |

Main Products in Relevant Categories

| HS2 | 2007 | | | | 2010 | | | | 2013 | | | |
|-----|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| | EF | | RE | | EF | | RE | | EF | | RE | |
| | HS6 | Share |
| 61 | 611710 | 17.84 | 611710 | 2.13 | 611019 | 33.66 | 611019 | 4.92 | 611019 | 19.16 | 611019 | 4.51 |
| 61 | 610910 | 3.31 | 610910 | 28.89 | 610910 | 5.79 | 610910 | 27.50 | 610910 | 7.15 | 610910 | 18.05 |
| 62 | 621420 | 32.04 | 621420 | 0.89 | 621420 | 29.41 | 621420 | 0.51 | 621420 | 31.17 | 621420 | 2.05 |
| 62 | 620630 | 0.00 | 620630 | 11.33 | 620630 | 1.11 | 620630 | 16.16 | 620640 | 0.50 | 620640 | 13.71 |
| 71 | 711311 | 50.86 | 711311 | 18.03 | 711311 | 69.18 | 711311 | 16.25 | 711790 | 60.88 | 711790 | 54.13 |
| 71 | 711790 | 7.35 | 711790 | 28.86 | 711790 | 21.86 | 711790 | 42.94 | 711311 | 29.41 | 711311 | 18.72 |

Main Destinations

| Rank | 2007 | | | | 2010 | | | | 2013 | | | |
|------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| | EF | | RE | | EF | | RE | | EF | | RE | |
| | Code | Share |
| 1 | US | 57.92 | VE | 34.21 | US | 31.82 | VE | 35.38 | US | 38.93 | VE | 32.11 |
| 2 | CA | 7.02 | US | 26.48 | JP | 10.97 | US | 23.22 | JP | 8.68 | US | 25.98 |
| 3 | EC | 5.81 | ES | 4.43 | GB | 6.84 | CO | 6.86 | GB | 7.24 | CO | 5.26 |
| 4 | AU | 5.69 | FR | 3.82 | FR | 6.73 | CR | 2.67 | AU | 7.23 | EC | 2.68 |
| 5 | JP | 3.48 | MX | 3.55 | CL | 5.40 | MX | 2.53 | FR | 5.82 | MX | 2.37 |
| 6 | ES | 2.47 | CO | 2.98 | CA | 4.59 | DO | 2.47 | CL | 4.76 | FR | 2.26 |
| 7 | GB | 2.45 | GB | 2.66 | AU | 4.53 | ES | 2.45 | DE | 3.27 | CL | 2.18 |
| 8 | FR | 2.24 | IT | 2.25 | IT | 3.15 | IT | 2.33 | CA | 3.15 | ES | 2.17 |
| 9 | CR | 1.84 | EC | 2.13 | DE | 2.92 | FR | 2.30 | NO | 2.44 | DE | 1.90 |
| 10 | NO | 1.43 | JP | 1.97 | ES | 2.66 | DE | 1.95 | ES | 1.69 | CR | 1.87 |
| 11 | Others | 9.65 | Others | 15.53 | Others | 20.39 | Others | 17.84 | Others | 16.81 | Others | 21.21 |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

Sample: Air-shipped exports by small firms with less than 5,000 USD median shipments.

Product Categories (HS2 Chapters)

3: Fish And Crustaceans, Molluscs And Other Aquatic Invertebrates; 7: Vegetables And Certain Roots And Tubers, Edible; 11: Products Of The Milling Industry, Malt, Starches, Inulin, Wheat Gluten; 13: Lac, Gums, Resins And Other Vegetable Saps And Extracts; 21: Miscellaneous Edible Preparations; 42: Articles Of Leather, Saddlery And Harness, Travel Goods, Handbags And Similar Containers, Articles Of Animal Gut (other Than Silk-worm Gut); 43: Furskins and Artificial Fur, Manufactures Thereof; 49: Printed Books, Newspapers, Pictures And Other Products Of The Printing Industry, Manuscripts, Typescripts And Plans; 58: Fabrics, Special Woven Fabrics, Tufted Textile Fabrics, Lace, Tapestries, Trimmings, Embroidery; 61: Apparel And Clothing Accessories, Knitted Or Crocheted; 62: Apparel And Clothing Accessories, Not Knitted Or Crocheted; 63: Textiles, Made Up Articles, Sets, Worn Clothing And Worn Textile Articles, Rags; 64: Footwear, Gaiters And The Like, Parts Of Such Articles; 65: Headgear And Parts Thereof; 69: Ceramic Products; 71: Natural, Cultured Pearls, Precious, Semi-precious Stones, Precious Metals, Metals Clad With Precious Metal, And Articles Thereof, Imitation Jewelry, Coin; 84: Nuclear Reactors, Boilers, Machinery And Mechanical Appliances, Parts Thereof; 85: Electrical Machinery And Equipment And Parts Thereof, Sound Recorders And Reproducers, Television Image And Sound Recorders And Reproducers, Parts And Accessories Of Such Articles; 88: Aircraft, Spacecraft And Parts Thereof; 90: Optical, Photographic, Cinematographic, Measuring, Checking, Medical Or Surgical Instruments And Apparatus, Parts And Accessories 95: Toys, Games And Sports Requisites Parts And Accessories Thereof; 96: Miscellaneous Manufactured Articles; 97: Works of Art, Collectors' Pieces And Antiques.

Products

611710: Shawls, Scarves, Mufflers, Mantillas, Veils and the Like; 610910: T-shirts, Singlets, Other Vests, Knitted or Crocheted, of Cotton; 611019: Jerseys, Pullovers, Cardigans, Waist-Coats Knitted or Crochet; 621420: Shawls, Scarves, Mufflers, Mantillas, Veils and the Like of Wool or Fine Animal Hair, Not Knitted or Crocheted; 620630: Women's or Girls' Blouses, Shirts, of Cotton; 620640: 620640 Women's or Girls' Blouses, Shirts, of Man-made Fibers; 711311: Articles of Jewelry and Parts Thereof, of silver, Whether or not Plated or Clad with other Precious Metal; and 711790: Other Imitation Jewelry.

Destinations

AR: Argentina; AU: Australia; CA: Canada; CH: Switzerland; CL: Chile; CN: China, People's Republic of; CO: Colombia; CR: Costa Rica; DE: Germany; DO: Dominican Republic; EC: Ecuador; ES: Spain; FR: France; GB: United Kingdom; HK: Hong Kong; IT: Italy; JP: Japan; MX: Mexico; NO: Norway; PA: Panama; RU: Russia; US: United States; VE: Venezuela.

Table 5

| The Impact of <i>Exporta Fácil</i> on Municipal Exports | | | | | | | | | |
|---|-------------------------------|---------------------|---------------------|--------------------|---|---------------------|--------------------|---------------------|-------------------|
| Export Outcomes | OLS | RF | IV | Placebo | OLS | RF | | IV | Placebo |
| | | | | | | (1) | (2) | | |
| | Municipality Intensive Margin | | | | Municipality-Destination Intensive Margin | | | | |
| Export Value | -0.116 (0.174) | 0.683*** (0.239) | 1.675** (0.768) | -0.070 (0.177) | -0.608*** (0.050) | 0.597** (0.296) | 0.356 (0.576) | 1.774** (0.771) | -0.003 (0.056) |
| Number of Firms | 0.360*** (0.044) | 0.304** (0.117) | 0.744*** (0.286) | -0.149* (0.089) | 0.279*** (0.012) | 0.113 (0.085) | 0.490** (0.224) | 0.711*** (0.202) | 0.003 (0.018) |
| Number of Destinations | 0.359*** (0.056) | 0.333*** (0.128) | 0.818** (0.318) | -0.136 (0.091) | | | | | |
| Number of Products | 0.217*** (0.080) | 0.186 (0.150) | 0.456 (0.350) | -0.056 (0.078) | 0.026 (0.024) | -0.118 (0.176) | 1.003** (0.501) | 0.601 (0.395) | 0.020 (0.034) |
| Export Value per Firm | -0.476*** (0.167) | 0.379 (0.263) | 0.930 (0.744) | 0.079 (0.162) | -0.887*** (0.046) | 0.484* (0.287) | -0.134 (0.505) | 1.063 (0.727) | -0.006 (0.050) |
| Export Value per Destination | -0.475*** (0.151) | 0.349 (0.254) | 0.857 (0.715) | 0.066 (0.161) | | | | | |
| Export Value per Product | -0.332** (0.149) | 0.497* (0.254) | 1.219 (0.776) | 0.049 (0.188) | -0.635*** (0.041) | 0.715*** (0.235) | -0.647 (0.486) | 1.173* (0.606) | -0.024 (0.050) |
| First Stage | | | | | | | | | |
| Postal Office in Province (1) | | | 0.408*** (0.104) | | | | | 0.310*** (0.076) | |
| Postal Office in Province * Share of Air Shipping in Destination (2) | | | | | | | | 0.274* (0.156) | |
| Municipality Fixed Effects | Yes | Yes | Yes | Yes | No | No | No | No | No |
| Municipality-Destination Fixed Effects | No | No | No | No | Yes | Yes | Yes | Yes | Yes |
| Department-Year Fixed Effect | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Destination-Year Fixed Effect | No | No | No | No | Yes | Yes | Yes | Yes | Yes |
| F-Statistics | | | 15.5 [0.000] | | | | | 17.2 [0.000] | |
| Number of Observations | 1,393 | 1,393 | 1,393 | 841 | 16,055 | 16,055 | 16,055 | 6,333 | |
| First Stage | | | | | | | | | |
| Postal Office in Province | | | 0.327*** (0.044) | | | | | 0.132*** (0.016) | |
| Postal Office in Province * Share of Air Shipping in Destination (2) | | | | | | | | 0.068** (0.033) | |
| Municipality Fixed Effects | Yes | Yes | Yes | Yes | No | No | No | No | No |
| Municipality-Destination Fixed Effects | No | No | No | No | Yes | Yes | Yes | Yes | Yes |
| Department-Year Fixed Effect | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Destination-Year Fixed Effect | No | No | No | No | Yes | Yes | Yes | Yes | Yes |
| F-Statistics | | | 56.1 [0.000] | | | | | 52.8 [0.000] | |
| Number of Observations | 2,565 | 2,565 | 2,565 | | 41,211 | 41,211 | 41,211 | | |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

Columns 1-3 and 5-7 of the table report OLS, reduced-form, and IV estimates of Equations (1) and (2) along with estimates of the first stage equation (Equations (3) and (4)) and the F test statistics for the latter. Columns 4 and 8 of the table present OLS estimates of placebo exercises. The sample only includes air-shipped exports by small firms with less than 5,000 USD median shipments. In the upper panel, the dependent variables are the natural logarithm of export value, number of exporting firms, number of destinations, number of products, export value per firm, export value per destination, and export value per product (municipality-level data - left side) and the natural logarithm of export value, number of exporting firms, number of products, export value per firm, and export value per product (municipality-destination level data - right side). In the upper lower panel, the dependent variable is a binary indicator that takes the value of one if the municipality exports in the year in question and zero otherwise (municipality-level data - left side) and a binary indicator that takes the value of one if the municipality exports to the destination in the year in question and zero otherwise (municipality-destination level data - right side). The explanatory variable is a binary indicator that takes the value of one if *Exporta Fácil* was used in the municipality (left side) or in the municipality-destination combination (right side) in the year in question and zero otherwise. In the IV estimations, this variable is instrumented with a binary indicator that takes the value of one if there is a postal office handling *Exporta Fácil* in the province to which the municipality belongs and zero otherwise (left side) or this variable and this variable interacted with a binary indicator that takes the value of one if the share of air transportation in Peru's total export to the destination is in question above the median of the respective distribution across destination in 2006 and zero otherwise (right side). Placebo estimates are those obtained when estimating Equations (1) and (2) on data over the period 1999-2006 and applying the actual time profile of *Exporta Fácil*'s use over the period 2007-2014. Standard errors clustered by municipality (left panel) and municipality-destination (right panel) are reported in parentheses below the estimated coefficients. *** significant at the 1% level, ** significant at the 5% level, and * significant at the 10% level.

Table 6

| The Size of Initial Exports with and without <i>Exporta Fácil</i> | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|
| Firm-Level | | | | | | |
| EF | -2.538*** | -2.451*** | -2.455*** | -2.609*** | -2.510*** | -2.490*** |
| | (0.079) | (0.086) | (0.090) | (0.081) | (0.089) | (0.092) |
| Both | 0.651*** | 0.758*** | 0.796*** | 0.568*** | 0.669*** | 0.742*** |
| | (0.160) | (0.172) | (0.187) | (0.162) | (0.169) | (0.181) |
| Firm-Level Controls | No | No | No | Yes | Yes | Yes |
| 2-Digit Sector-Year Fixed Effect | Yes | Yes | No | Yes | Yes | No |
| 4-Digit Sector-Year Fixed Effect | No | No | Yes | No | No | Yes |
| Region-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Municipality-Year Fixed Effect | No | Yes | Yes | No | Yes | Yes |
| Observations | 6,685 | 6,685 | 6,685 | 6,685 | 6,685 | 6,685 |
| Firm-Product-Destination Level | | | | | | |
| Export Value | | | | | | |
| EF | -0.282*** | -0.238*** | -0.149*** | -0.213*** | -0.175*** | -0.090** |
| | (0.027) | (0.032) | (0.044) | (0.027) | (0.032) | (0.044) |
| Both | 2.161*** | 2.116*** | 1.899*** | 2.175*** | 2.107*** | 1.893*** |
| | (0.117) | (0.123) | (0.164) | (0.116) | (0.125) | (0.165) |
| Export Weight | | | | | | |
| EF | -1.006*** | -0.801*** | -0.685*** | -1.002*** | -0.787*** | -0.663*** |
| | (0.027) | (0.032) | (0.043) | (0.027) | (0.032) | (0.043) |
| Both | 1.653*** | 1.646*** | 1.573*** | 1.661*** | 1.642*** | 1.571*** |
| | (0.112) | (0.122) | (0.162) | (0.109) | (0.121) | (0.161) |
| Export Unit Value | | | | | | |
| EF | 0.726*** | 0.564*** | 0.537*** | 0.791*** | 0.614*** | 0.575*** |
| | (0.017) | (0.018) | (0.024) | (0.017) | (0.018) | (0.023) |
| Both | 0.509*** | 0.471*** | 0.328*** | 0.514*** | 0.465*** | 0.324*** |
| | (0.071) | (0.066) | (0.074) | (0.071) | (0.066) | (0.074) |
| 2-Digit Product-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Product-Year Fixed Effect | No | Yes | No | No | Yes | No |
| Destination-Year Fixed Effect | Yes | Yes | No | Yes | Yes | No |
| Product-Destination-Year Fixed Effect | No | No | Yes | No | No | Yes |
| Firm-Level Controls | No | No | No | Yes | Yes | Yes |
| 2-Digit Sector-Year Fixed Effect | Yes | No | No | Yes | No | No |
| 4-Digit Sector-Year Fixed Effect | No | Yes | Yes | No | Yes | Yes |
| Region-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Municipality-Year Fixed Effect | No | Yes | Yes | No | Yes | Yes |
| Observations | 119,666 | 119,666 | 119,666 | 119,666 | 119,666 | 119,666 |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

The table reports estimates of alternative specifications of Equation (5) as obtained from data at the firm-year level (first panel) and at the firm-product-destination-year level (second panel) that correspond to the selected sample, i.e., air-shipped exports by small firms with less than 5,000 USD median shipments. The dependent variables are the natural logarithm of the export value in the first year in which the respective export appears (first and second panels) and the natural logarithm of export weight and unit value (second panel). The main explanatory variables are a binary indicator *EF* that takes the value of one if *Exporta Fácil* was used and zero otherwise and binary indicator *Both* that takes the value of one if both *Exporta Fácil* and regular export channels were used the same year and zero otherwise. Standard errors clustered by firms (first panel) and firm-product-destination (second panel) are reported in parentheses below the estimated coefficients. *** significant at the 1% level, ** significant at the 5% level, and * significant at the 10% level.

Table 7

| Experimentation and <i>Exporta Fácil</i> | | | | | | |
|---|----------|----------|----------|----------|----------|----------|
| Firm-Level | | | | | | |
| EF | 0.097*** | 0.094*** | 0.092*** | 0.067*** | 0.063*** | 0.061*** |
| | (0.006) | (0.006) | (0.006) | (0.007) | (0.007) | (0.007) |
| Firm-Level Controls | No | No | No | Yes | Yes | Yes |
| 2-Digit Sector-Year Fixed Effect | Yes | Yes | No | Yes | Yes | No |
| 4-Digit Sector-Year Fixed Effect | No | No | Yes | No | No | Yes |
| Department-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Municipality-Year Fixed Effect | No | Yes | Yes | No | Yes | Yes |
| Observations | 19,816 | 19,816 | 19,816 | 19,816 | 19,816 | 19,816 |
| Firm-Product-Destination Level | | | | | | |
| EF | 0.023*** | 0.022*** | 0.022*** | 0.012*** | 0.012*** | 0.002*** |
| | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| Controlling for Previous Export Experience | | | | | | |
| EF | 0.016*** | 0.015*** | 0.015*** | 0.012*** | 0.011*** | 0.005*** |
| | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| Export to the Same Destination the Previous Year | 0.238*** | 0.225*** | 0.222*** | 0.240*** | 0.229*** | 0.082*** |
| | (0.006) | (0.006) | (0.007) | (0.006) | (0.006) | (0.010) |
| Export the Same Product the Previous Year | 0.454*** | 0.413*** | 0.387*** | 0.455*** | 0.425*** | 0.188*** |
| | (0.007) | (0.008) | (0.009) | (0.007) | (0.007) | (0.009) |
| Export to the Same Destination with <i>Exporta Fácil</i> the Previous Year | 0.289*** | 0.272*** | 0.262*** | 0.287*** | 0.272*** | 0.102*** |
| | (0.006) | (0.006) | (0.007) | (0.006) | (0.006) | (0.010) |
| Export the Same Product with <i>Exporta Fácil</i> the Previous Year | 0.469*** | 0.423*** | 0.399*** | 0.466*** | 0.433*** | 0.186*** |
| | (0.007) | (0.008) | (0.009) | (0.007) | (0.008) | (0.009) |
| 2-Digit Product-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Product-Year Fixed Effect | No | Yes | No | No | Yes | No |
| Destination-Year Fixed Effect | Yes | Yes | No | Yes | Yes | No |
| Product-Destination-Year Fixed Effect | No | No | Yes | No | No | Yes |
| Firm-Level Controls | No | No | No | Yes | Yes | No |
| 2-Digit Sector-Year Fixed Effect | Yes | No | No | Yes | No | No |
| 4-Digit Sector-Year Fixed Effect | No | Yes | Yes | No | Yes | No |
| Department-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Municipality-Year Fixed Effect | No | Yes | Yes | No | Yes | No |
| Firm-Year Fixed Effect | No | No | No | No | No | Yes |
| Observations | 211,180 | 211,180 | 211,180 | 211,180 | 211,180 | 211,180 |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

The table reports estimates of alternative specifications of Equation (6) as obtained from data at the firm-year level (first panel) and at the firm-product-destination-year level (second panel) that correspond to the selected sample, i.e., air-shipped exports by small firms with less than 5,000 USD median shipments. The dependent variable is a binary indicator that takes the value of one if the export firm or the firm-product-destination flow is new (i.e., it did not appear in previous years). The main explanatory variable is a binary indicator *EF* that takes the value of one if *Exporta Fácil* was used and zero otherwise. In the second panel, control variables are: a binary indicator that takes the value of one if the firm exported to the same destination the previous year and zero otherwise, a binary indicator that takes the value of one if the firm exported the same product the previous year and zero otherwise, a binary indicator that takes the value of one if the firm exported to the same destination through *Exporta Fácil* the previous year and zero otherwise, and a binary indicator that takes the value of one if the firm exported the same product through *Exporta Fácil* the previous year and zero otherwise. Standard errors clustered by firms (first panel) and firm-product-destination (second panel) are reported in parentheses below the estimated coefficients. *** significant at the 1% level, ** significant at the 5% level, and * significant at the 10% level.

Table 8

| Experimentation: Entry and Exit Rates | | | |
|---------------------------------------|----------------------|----------------------|---------------------|
| Entry Rates | | | |
| EF | 0.136*** (0.012) | 0.122*** (0.013) | 0.121*** (0.013) |
| Both | -0.034*** (0.007) | -0.037*** (0.007) | 0.025*** (0.007) |
| 2-Digit Product-Year Fixed Effect | Yes | No | Yes |
| Destination-Year Fixed Effect | No | Yes | Yes |
| Observations | 22,396 | 22,396 | 22,396 |
| Exit Rates | | | |
| EF | 0.079*** (0.014) | 0.037** (0.015) | 0.055*** (0.015) |
| Both | -0.036*** (0.007) | -0.060*** (0.007) | 0.007 (0.007) |
| 2-Digit Product-Year Fixed Effect | Yes | No | Yes |
| Destination-Year Fixed Effect | No | Yes | Yes |
| Observations | 19,753 | 19,753 | 19,753 |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

The first panel of the table reports estimates of alternative specifications of Equation (7) as obtained on the selected sample, i.e., air-shipped exports by small firms with less than 5,000 USD median shipments. The dependent variable is the entry rate of *Exporta Fácil* exporters, regular exporters, and exporters using both *Exporta Fácil* and the regular channels as computed at the HS 2-digit product-destination-year level. The main explanatory variables are a binary indicator that takes the value of one for pure *Exporta Fácil* exporters and zero otherwise and a binary indicator that takes the value of one for firms using both *Exporta Fácil* and the regular channels and zero otherwise. The second panel of the table reports estimates of alternative specifications of Equation (8) as obtained on the selected sample, i.e., air-shipped exports by small firms with less than 5,000 USD median shipments. The dependent variable is the exit rate of *Exporta Fácil* exporters, regular exporters, and exporters using both *Exporta Fácil* and the regular channels as computed at the HS 2-digit product-destination-year level. The main explanatory variables are a binary indicator that takes the value of one for pure *Exporta Fácil* exporters and zero otherwise and a binary indicator that takes the value of one for firms using both *Exporta Fácil* and the regular channels and zero otherwise. Standard errors clustered by firms (first panel) and firm-product-destination (second panel) are reported in parentheses below the estimated coefficients. *** significant at the 1% level, ** significant at the 5% level, and * significant at the 10% level.

Table 9

| Learning: Level of New Regular Exports, with and without previous <i>Export Fácil</i> | | | | | | |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Firm-Level | | | | | | |
| EF | 0.019 (0.200) | 0.202 (0.241) | 0.327 (0.258) | 0.340* (0.205) | 0.481** (0.244) | 0.525** (0.261) |
| Firm-Level Controls | No | No | No | Yes | Yes | Yes |
| 2-Digit Sector-Year Fixed Effect | Yes | Yes | No | Yes | Yes | No |
| 4-Digit Sector-Year Fixed Effect | No | No | Yes | No | No | Yes |
| Department-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Municipality-Year Fixed Effect | No | Yes | Yes | No | Yes | Yes |
| Observations | 5,206 | 5,206 | 5,206 | 5,206 | 5,206 | 5,206 |
| Firm-Product-Destination Level | | | | | | |
| Export Value | | | | | | |
| EF | 1.450*** (0.153) | 1.258*** (0.160) | 1.079*** (0.191) | 1.568*** (0.155) | 1.366*** (0.162) | 1.203*** (0.192) |
| Export Weight | | | | | | |
| EF | 1.009*** (0.157) | 0.901*** (0.166) | 0.760*** (0.199) | 1.085*** (0.158) | 0.970*** (0.167) | 0.845*** (0.199) |
| Export Unit Value | | | | | | |
| EF | 0.442*** (0.088) | 0.356*** (0.079) | 0.318*** (0.106) | 0.483*** (0.088) | 0.397*** (0.080) | 0.357*** (0.105) |
| 2-Digit Product-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Product-Year Fixed Effect | No | Yes | No | No | Yes | No |
| Destination-Year Fixed Effect | Yes | Yes | No | Yes | Yes | No |
| Product-Destination-Year Fixed Effect | No | No | Yes | No | No | Yes |
| Firm-Level Controls | No | No | No | Yes | Yes | No |
| 2-Digit Sector-Year Fixed Effect | Yes | No | Yes | Yes | No | No |
| 4-Digit Sector-Year Fixed Effect | No | Yes | Yes | No | Yes | No |
| Department-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Municipality-Year Fixed Effect | No | Yes | Yes | No | Yes | No |
| Firm-Year Fixed Effect | No | No | No | No | No | Yes |
| Observations | 116,605 | 116,605 | 116,605 | 116,605 | 116,605 | 116,605 |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

The table reports estimates of alternative specifications of Equation (9) as obtained from data at the firm-year level (first panel) and at the firm-product-destination-year level (second panel) that correspond to the selected sample, i.e., air-shipped exports by small firms with less than 5,000 USD median shipments. The dependent variables are the natural logarithm of the export value in the first year in which the respective export appears as regular (first and second panels) and the natural logarithm of weight and unit value for this first regular exports (second panel). The main explanatory variable is a binary indicator *EF* that takes the value of one if *Exporta Fácil* before the flow first appears as regular and zero otherwise. Standard errors clustered by firms (first panel) and firm-product-destination (second panel) are reported in parentheses below the estimated coefficients. *** significant at the 1% level, ** significant at the 5% level, and * significant at the 10% level.

Table 10

| Learning: Failure of New Regular Exports, with and without previous <i>Export Fácil</i> | | | | | | |
|---|----------------------|---------------------|--------------------|----------------------|----------------------|---------------------|
| Firm-Level | | | | | | |
| EF | -0.095 (0.070) | -0.131* (0.077) | -0.140* (0.084) | -0.166** (0.069) | -0.195*** (0.075) | -0.188** (0.082) |
| Firm-Level Controls | No | No | No | Yes | Yes | Yes |
| 2-Digit Sector-Year Fixed Effect | Yes | Yes | No | Yes | Yes | No |
| 4-Digit Sector-Year Fixed Effect | No | No | Yes | No | No | Yes |
| Department-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Municipality-Year Fixed Effect | No | Yes | Yes | No | Yes | Yes |
| Observations | 4,609 | 4,609 | 4,609 | 4,609 | 4,609 | 4,609 |
| Firm-Product-Destination Level | | | | | | |
| EF | -0.138*** (0.045) | -0.103** (0.046) | -0.103* (0.057) | -0.155*** (0.045) | -0.121*** (0.046) | -0.145** (0.070) |
| 2-Digit Product-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Product-Year Fixed Effect | No | Yes | No | No | Yes | No |
| Destination-Year Fixed Effect | Yes | Yes | No | Yes | Yes | No |
| Product-Destination-Year Fixed Effect | No | No | Yes | No | No | Yes |
| Firm-Level Controls | No | No | No | Yes | Yes | No |
| 2-Digit Sector-Year Fixed Effect | Yes | No | Yes | Yes | No | No |
| 4-Digit Sector-Year Fixed Effect | No | Yes | Yes | No | Yes | No |
| Department-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Municipality-Year Fixed Effect | No | Yes | Yes | No | Yes | No |
| Firm-Year Fixed Effect | No | No | No | No | No | Yes |
| Observations | 98,481 | 98,481 | 98,481 | 98,481 | 98,481 | 98,481 |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

The table reports estimates of alternative specifications of Equation (10) as obtained from data at the firm-year level (first panel) and at the firm-product-destination-year level (second panel) that correspond to the selected sample, i.e., air-shipped exports by small firms with less than 5,000 USD median shipments. The dependent variable is a binary indicator that takes the value if an export flow that first appear as regular in a given year remains present as such the following year and zero otherwise. The main explanatory variable is a binary indicator *EF* that takes the value of one if *Exporta Fácil* was used the year before the flow first appears as regular and zero otherwise. Standard errors clustered by firms (first panel) and firm-product-destination (second panel) are reported in parentheses below the estimated coefficients. *** significant at the 1% level, ** significant at the 5% level, and * significant at the 10% level.

Table 11

| Learning: Growth of New Regular Exports, with and without previous <i>Export Fácil</i> | | | | | | |
|--|--------------------|------------------|------------------|---------------------|-------------------|------------------|
| Firm-Level | | | | | | |
| EF | -0.009 (0.113) | 0.037 (0.122) | 0.081 (0.144) | 0.077 (0.111) | 0.114 (0.122) | 0.136 (0.143) |
| Firm-Level Controls | No | No | No | Yes | Yes | Yes |
| 2-Digit Sector-Year Fixed Effect | Yes | Yes | No | Yes | Yes | No |
| 4-Digit Sector-Year Fixed Effect | No | No | Yes | No | No | Yes |
| Department-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Municipality-Year Fixed Effect | No | Yes | Yes | No | Yes | Yes |
| Observations | 5,206 | 5,206 | 5,206 | 5,206 | 5,206 | 5,206 |
| Firm-Product-Destination Level | | | | | | |
| EF | 0.182** (0.075) | 0.106 (0.078) | 0.060 (0.096) | 0.221*** (0.075) | 0.141* (0.078) | 0.161 (0.135) |
| 2-Digit Product-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Product-Year Fixed Effect | No | Yes | No | Yes | Yes | No |
| Destination-Year Fixed Effect | Yes | Yes | No | Yes | Yes | No |
| Product-Destination-Year Fixed Effect | No | No | Yes | No | No | Yes |
| Firm-Level Controls | No | No | No | Yes | Yes | No |
| 2-Digit Sector-Year Fixed Effect | Yes | No | Yes | Yes | No | No |
| 4-Digit Sector-Year Fixed Effect | No | Yes | Yes | No | Yes | No |
| Department-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Municipality-Year Fixed Effect | No | Yes | Yes | No | Yes | No |
| Firm-Year Fixed Effect | No | No | No | No | No | Yes |
| Observations | 112,093 | 112,093 | 112,093 | 112,093 | 112,093 | 112,093 |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

The table reports estimates of alternative specifications of Equation (11) as obtained from data at the firm-year level (first panel) and at the firm-product-destination-year level (second panel) that correspond to the selected sample, i.e., air-shipped exports by small firms with less than 5,000 USD median shipments. The dependent variable is the change in the natural logarithm of the export value between the first year in which the export flow appears as regular and the following year. The main explanatory variable is a binary indicator *EF* that takes the value of one if *Exporta Fácil* was used the year before the flow first appears as regular and zero otherwise. Standard errors clustered by firms (first panel) and firm-product-destination (second panel) are reported in parentheses below the estimated coefficients. *** significant at the 1% level, ** significant at the 5% level, and * significant at the 10% level.

Table 12

| New Regular Destinations with and without Previous <i>Exporta Fácil</i> | | | | | | |
|---|----------|----------|----------|----------|----------|----------|
| Firm-Level | | | | | | |
| EF | 0.065** | 0.053** | 0.056** | 0.068*** | 0.055** | 0.057** |
| | (0.026) | (0.026) | (0.028) | (0.026) | (0.026) | (0.028) |
| Firm-Level Controls | No | No | No | Yes | Yes | Yes |
| 2-Digit Sector-Year Fixed Effect | Yes | Yes | No | Yes | Yes | No |
| 4-Digit Sector-Year Fixed Effect | No | No | Yes | No | No | Yes |
| Department-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Municipality-Year Fixed Effect | No | Yes | Yes | No | Yes | Yes |
| Observations | 5,206 | 5,206 | 5,206 | 5,206 | 5,206 | 5,206 |
| Firm-Product Level | | | | | | |
| EF | 0.079*** | 0.067*** | 0.071*** | 0.081*** | 0.068*** | 0.072*** |
| | (0.017) | (0.018) | (0.018) | (0.017) | (0.018) | (0.018) |
| 2-Digit Product-Year Fixed Effect | Yes | No | No | Yes | No | No |
| Product-Year Fixed Effect | No | Yes | Yes | No | Yes | Yes |
| Firm-Level Controls | No | No | No | Yes | Yes | Yes |
| 2-Digit Sector-Year Fixed Effect | Yes | No | No | Yes | No | No |
| 4-Digit Sector-Year Fixed Effect | No | Yes | Yes | No | Yes | Yes |
| Department-Year Fixed Effect | Yes | Yes | No | Yes | Yes | No |
| Municipality-Year Fixed Effect | No | No | Yes | No | No | Yes |
| Observations | 90,506 | 90,506 | 90,506 | 90,506 | 90,506 | 90,506 |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

The table reports estimates of alternative specifications of Equation (12) as obtained from data at the firm-year level (first panel) and at the firm-product-year level (second panel) that correspond to the selected sample, i.e., air-shipped exports by small firms with less than 5,000 USD median shipments. The dependent variable is a binary indicator that takes the value of one if a new destination is added in the following year an export flow first appears as regular and zero otherwise. The main explanatory variable is a binary indicator *EF* that takes the value of one if *Exporta Fácil* was used the year before the flow first appears as regular and zero otherwise. Standard errors clustered by firms (first panel) and firm-product-destination (second panel) are reported in parentheses below the estimated coefficients. *** significant at the 1% level, ** significant at the 5% level, and * significant at the 10% level.

Table 13

| Spillovers from <i>Exporta Fácil</i> | | | | | | | | |
|--|---------------------|----------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
| Own Use of <i>Exporta Fácil</i> in the Previous Period | 0.092*** (0.017) | 0.161*** (0.013) | 0.229*** (0.029) | 0.194*** (0.033) | 0.231*** (0.028) | 0.195*** (0.032) | 0.323*** (0.016) | 0.223*** (0.012) |
| Other Firms' Use of <i>Exporta Fácil</i> in the Previous Period | | | | | | | | |
| <i>Any Location and Product-Destination Combination</i> | 0.644*** (0.007) | 0.412*** (0.0027) | | | | | | |
| <i>Same Region and Same Product-Destination Combination</i> | | | 0.594*** (0.034) | 0.353*** (0.040) | | | | |
| <i>Other Region but Same Product-Destination Combination</i> | | | -0.300*** (0.083) | -0.130** (0.060) | -0.299*** (0.083) | -0.129** (0.060) | -0.034** (0.013) | -0.015 (0.010) |
| <i>Same Province and Same Product-Destination Combination</i> | | | | | 0.594*** (0.034) | 0.354*** (0.039) | | |
| <i>Other Province but Same Region and Same Product-Destination Combination</i> | | | | | 0.0855*** (0.024) | 0.0558 (0.047) | | |
| <i>Same Municipality and Same Product-Destination Combination</i> | | | | | | | 0.621*** (0.005) | 0.362*** (0.005) |
| <i>Other Municipality but Same Region and Same Product-Destination Combination</i> | | | | | | | -0.024*** (0.007) | 0.005 (0.006) |
| Product-Destination-Year Fixed Effect | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Firm-Year Fixed Effect | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Firm-Product-Destination Fixed Effect | No | Yes | No | Yes | No | Yes | No | Yes |
| Observations | 211,180 | 211,180 | 211,180 | 211,180 | 211,180 | 211,180 | 211,180 | 211,180 |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

The table reports estimates of alternative specifications of Equation (13) as obtained from data at the firm-product-destination-year level that correspond to the selected sample, i.e., air-shipped exports by small firms with less than 5,000 USD median shipments. The dependent variable is a binary indicator that takes the value of one if the export flow is new as regular. The main explanatory variables are a binary indicator that takes the value of one if *Exporta Fácil* was used in the year before the flow appears as regular and zero otherwise and a binary indicator that takes the value of one if other firms (located in the same or other regions, provinces or municipalities) use *Exporta Fácil* to export (the same product to the same destination market) in that previous year and zero otherwise. Standard errors clustered by region are reported in parentheses below the estimated coefficients. *** significant at the 1% level, ** significant at the 5% level, and * significant at the 10% level.

Figure 1
Spread of *Exporta Fácil* in South America



Source: Authors' preparation based on Messere (2014).
EF was originally launched in Brazil in 2001. It was then implemented in Peru (2007), Uruguay (2009), Colombia (2011), and Ecuador (2011), and is being currently introduced in Argentina. Diagnostic studies have been finished in Chile, Bolivia, and Venezuela.

Figure 2
Typical Regular Export Declaration (DUA) and Typical Simplified Export Declaration (DEF)

DECLARACION UNICA DE ADUANAS (A)

1 IDENTIFICACION

2 TRANSITO

3 DECLARACION DE MERCANCIAS

4 DECLARACION DE VALORES

5 DECLARACION DE IMPUESTOS

6 DECLARACION DE OTRAS CARGAS

7 DECLARACION DE OTRAS CARGAS

8 DECLARACION DE OTRAS CARGAS

9 DECLARACION DE OTRAS CARGAS

10 DECLARACION DE OTRAS CARGAS

11 DECLARACION DE OTRAS CARGAS

12 DECLARACION DE OTRAS CARGAS

13 DECLARACION DE OTRAS CARGAS

14 DECLARACION DE OTRAS CARGAS

15 DECLARACION DE OTRAS CARGAS

16 DECLARACION DE OTRAS CARGAS

17 DECLARACION DE OTRAS CARGAS

18 DECLARACION DE OTRAS CARGAS

19 DECLARACION DE OTRAS CARGAS

20 DECLARACION DE OTRAS CARGAS

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94 DECLARACION DE OTRAS CARGAS

95 DECLARACION DE OTRAS CARGAS

96 DECLARACION DE OTRAS CARGAS

97 DECLARACION DE OTRAS CARGAS

98 DECLARACION DE OTRAS CARGAS

99 DECLARACION DE OTRAS CARGAS

100 DECLARACION DE OTRAS CARGAS

DECLARACION EXPORTA FACIL
 Guía Postal (CP-22, EM-1, CM-22, CM-23)

ExportaFácil

D. SE. N°
 Alfores Fecha:

Código de Barras
 Número de Guía Postal

1 Exportador (Entregante) R.U.C. del Exportador

2 Importador (Destinatario)

3 DESCRIPCION DE MERCANCIA

4 Oficina de Aduanas

5 Instrucciones del Exportador en caso de no efectuarse la entrega

6 Oficina de Origen de SERPOST

7 Entrega en Destino

8 Persona que Entregó el Envío a SERPOST

9 PRESTADOS (SERPOST)

10 VALORES (SERPOST)

11 VALORES (SERPOST)

12 VALORES (SERPOST)

13 VALORES (SERPOST)

14 VALORES (SERPOST)

15 VALORES (SERPOST)

16 VALORES (SERPOST)

17 VALORES (SERPOST)

18 VALORES (SERPOST)

19 VALORES (SERPOST)

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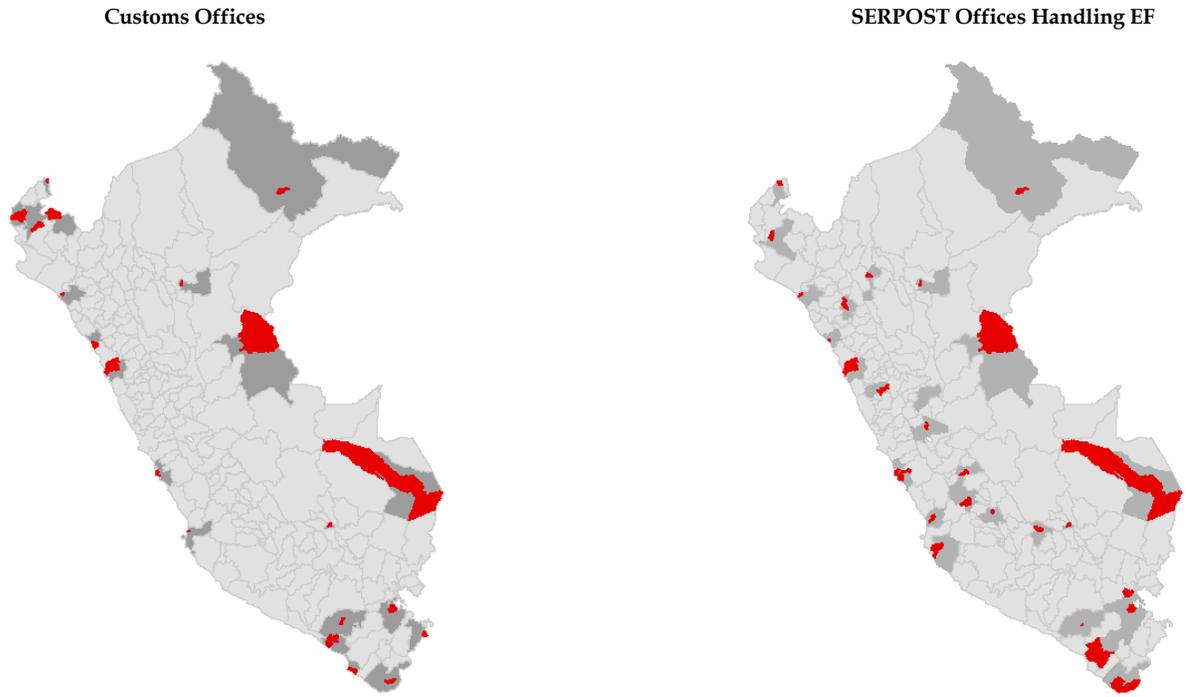
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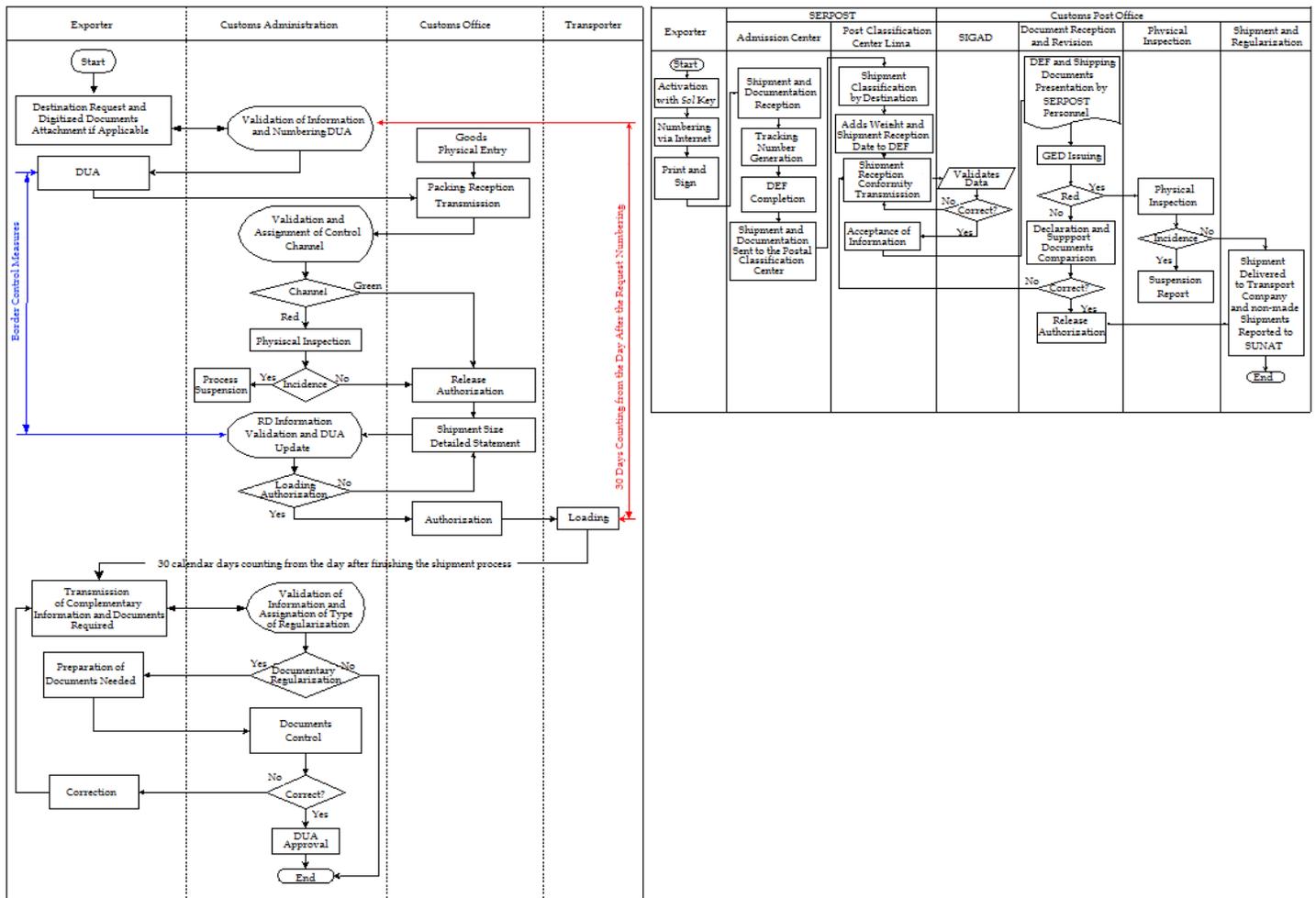
Source: SUNAT.

Figure 3
Location of Customs Branches and of SERPOST Offices Handling *Exporta Fácil* Shipments



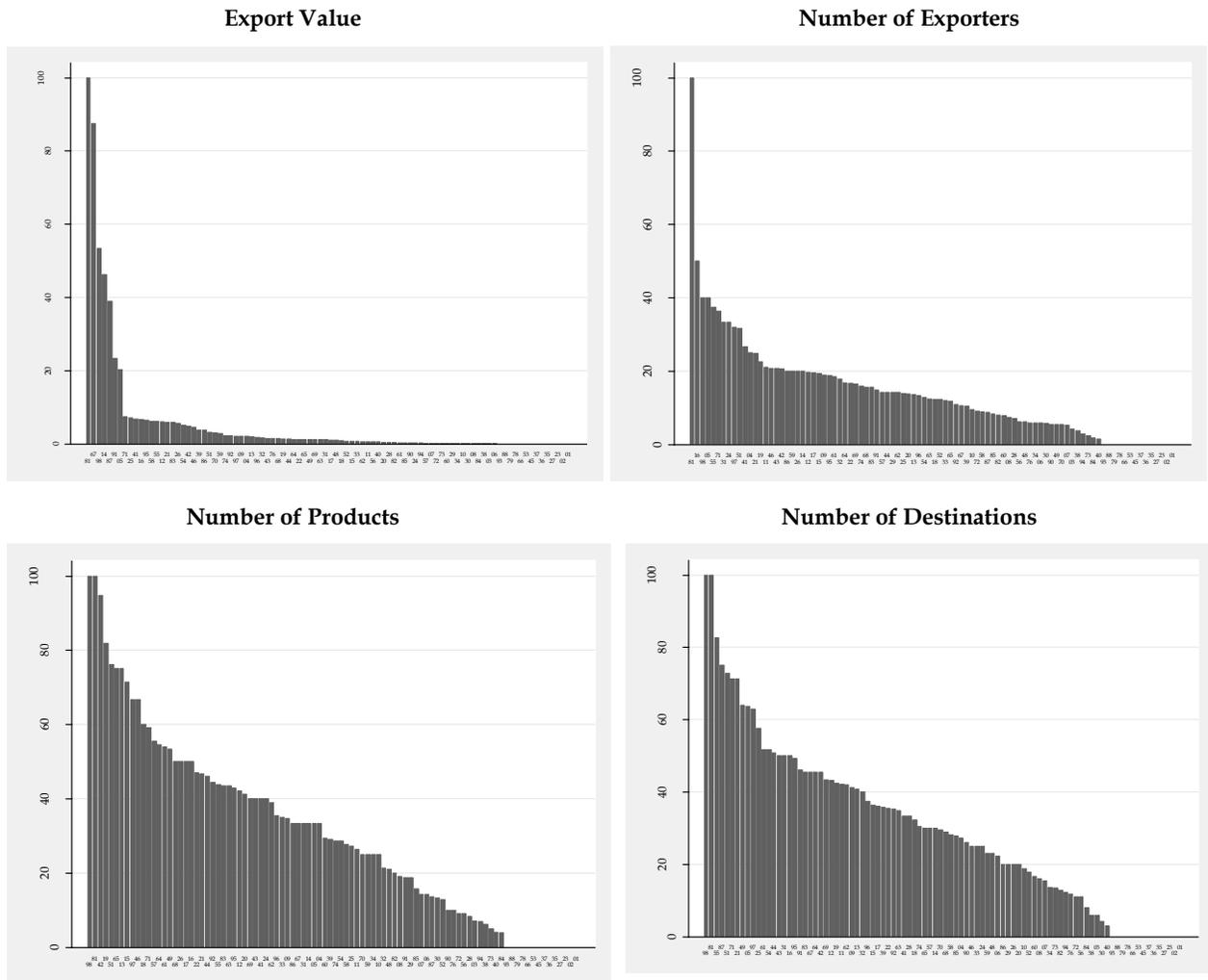
Source: Authors' preparation based on SUNAT AND SERPOST.
Provinces (municipalities) with customs branches and SERPOST offices handling EF shipments are marked with dark grey (red).

Figure 4
Typical Regular Export Process and Typical *Exporta Fácil* Process



Source: SUNAT.

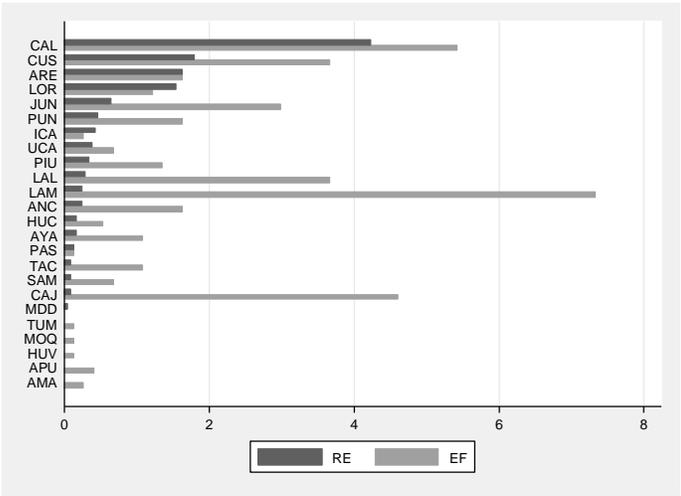
Figure 5
Share of *Exporta Fácil* by HS 2 Chapters, 2014



Source: Authors' calculations based on data from SUNAT and PROMPERU.

The figure shows the percentage share accounted for by *Exporta Fácil* in each HS2 Chapter total export value, number of exporting firms, number of exported products, and number of destinations.

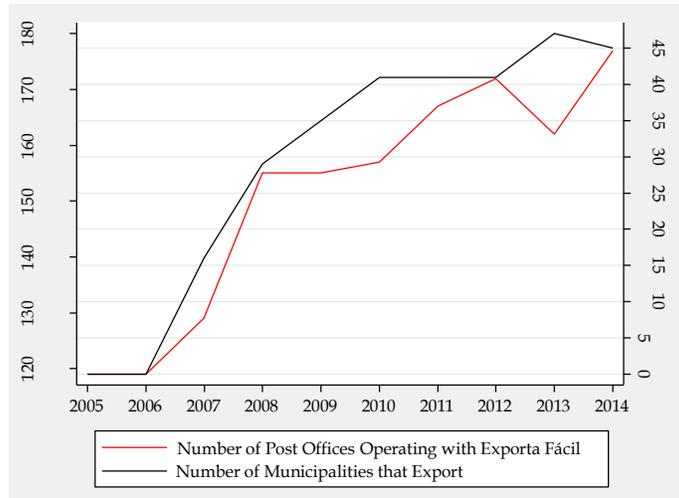
Figure 6
Geographical Distribution of Regular *Exporta Fácil* Exporters, 2014



Source: Authors' calculations based on data from SUNAT and PROMPERU.

The figure shows the percentage of each department in the total number of *Exporta Fácil* and regular exporters. Lima is not included.

Figure 7
Evolution of the Number of Exporting Municipalities and the Number of Offices of SERPOST with *Exporta Fácil*



Source: Authors' calculations based on data from SUNAT, PROMPERU, and SERPOST.

Appendix

Table A1

| Main Products: <i>Exporta Fácil</i> and Regular Exports, Selected Years | | | | | |
|---|---|-------|---------------|--|-------|
| 2007 | | | | | |
| <i>Exporta Fácil</i> | | | Regular | | |
| HS6 Code | Description | Share | HS6 Code | Description | Share |
| 711311 | Articles of jewelry and parts thereof of silver | 13.11 | 610910 | T-shirts, singlets and other vests, of cotton, | 17.22 |
| 640399 | Footwear with rubber soles, leather uppers | 12.17 | 611020 | Jerseys, pullovers, etc, of cotton, knitted or | 5.36 |
| 130219 | Other vegetable saps and extracts, nes | 9.12 | 610610 | Women's or girls' blouses, etc, of cotton | 3.88 |
| 711719 | Imitation jewelry nes of base metal | 6.05 | 611019 | Jerseys, pullovers, cardigans, others | 3.81 |
| 650590 | Hats and other headgear, knitted or crocheted | 5.54 | 610422 | Women's or girls' ensembles, of cotton, knitted | 3.15 |
| 420100 | Saddlery and harness for animal, any material | 4.88 | 611120 | Babies' garments, etc, of cotton | 3.01 |
| 630120 | Blankets (excl. electric blankets) | 4.60 | 611030 | Jerseys, pullovers, etc, of man-made fibres, kn | 2.87 |
| 611710 | Shawls, scarves, mufflers, mantillas, veils | 3.26 | 030110 | Live ornamental fish | 2.13 |
| 611019 | Jerseys, pullovers, cardigans, others | 2.48 | 610821 | Women's or girls' briefs and panties of cotton | 2.08 |
| 711411 | Art. of gold or silversmiths and parts of silver | 2.29 | 610510 | Men's or boys' shirts of cotton, knitted or cro | 1.98 |
| Others | | 36.52 | Others | | 54.51 |
| 2010 | | | | | |
| <i>Exporta Fácil</i> | | | Regular | | |
| HS6 Code | Description | Share | HS6 Code | Description | Share |
| 711311 | Articles of jewelry and parts thereof of silver | 16.44 | 610910 | T-shirts, singlets and other vests, of cotton, | 14.68 |
| 611019 | Jerseys, pullovers, cardigans, others | 9.16 | 610610 | Women's or girls' blouses, etc, of cotton | 4.90 |
| 950390 | Toys nes | 6.60 | 611020 | Jerseys, pullovers, etc, of cotton | 3.87 |
| 711790 | Imitation jewelry nes | 5.19 | 611019 | Jerseys, pullovers, cardigans, others | 2.63 |
| 960200 | Wkd veg/mineral carving mat and art, carved art nes | 3.59 | 611120 | Babies' garments, etc, of cotton | 2.49 |
| 611710 | Shawls, scarves, mufflers, mantillas, veils | 3.36 | 620630 | Women's or girls' blouses, shirts, etc, of cott | 2.46 |
| 650590 | Hats and other headgear, knitted or crocheted | 2.99 | 610442 | Dresses of cotton, knitted or crocheted | 2.39 |
| 611120 | Babies' garments, etc, of cotton | 2.65 | 620442 | Dresses of cotton | 2.23 |
| 420100 | Saddlery and harness for animal, any material | 2.23 | 610620 | Women's or girls' blouses, etc, of man-made fibers | 2.22 |
| 611691 | Gloves, mittens and mitts, of wool | 2.03 | 610990 | T-shirts, singlets, etc, of other textiles, nes | 1.99 |
| Others | | 45.76 | Others | | 60.13 |
| 2013 | | | | | |
| <i>Exporta Fácil</i> | | | Regular | | |
| HS6 Code | Description | Share | HS6 Code | Description | Share |
| 711790 | Imitation jewelry nes | 11.16 | 610910 | T-shirts, singlets and other vests, of cotton, | 10.30 |
| 611019 | Jerseys, pullovers, cardigans, others | 6.93 | 610990 | T-shirts, singlets, etc, of other textiles, nes | 4.70 |
| 950390 | Toys nes | 5.85 | 610620 | Women's or girls' blouses, etc, of man-made fibers | 4.37 |
| 711311 | Art. of jewelry and pts thereof of silver | 5.39 | 611020 | Jerseys, pullovers, etc, of cotton | 3.87 |
| 210690 | Other food preparations, nes | 3.77 | 611120 | Babies' garments, etc, of cotton, knitted or cr | 3.51 |
| 611120 | Babies' garments, etc, of cotton | 3.48 | 610610 | Women's or girls' blouses, etc, of cotton | 2.74 |
| 611241 | Women's or girls' swimwear of synthetic fibers | 3.46 | 611019 | Jerseys, pullovers, cardigans, others | 2.57 |
| 420222 | Handbags with outer surface of plastic sheeting | 3.38 | 611030 | Jerseys, pullovers, etc, of man-made fibres, kn | 2.57 |
| 611710 | Shawls, scarves, mufflers, mantillas, veils | 3.16 | 610462 | Women's or girls' trousers, etc, of cotton, kni | 2.06 |
| 650590 | Hats and other headgear, knitted or crocheted | 2.99 | 711790 | Imitation jewelry nes | 1.91 |
| Others | | 50.43 | Others | | 61.42 |

Source: Authors' calculations based on data from SUNAT and PROMPERU.

The table reports the percentage share accounted for by the 10 most important HS6 products of the total *Exporta Fácil* and regular export values for selected years of the sample period. Sample: Air-shipped exports by small firms with less than 5,000 USD median shipments.