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Importing after exporting

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July 2026

Centre for Inclusive Trade Policy
Working Paper No.038

Economic
and Social
Research Council

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Abstract

Using a comprehensive database of Argentine firms, we show that exporting to a new destination increases the probability of a firm beginning to import from that market within mainly the lapse of one year. We develop a model of import and export decisions to study the effect of productivity and import costs on the intensive and extensive margins of importing. We show that "importing after exporting" implies that export entry reduces the fixed cost of importing from that market. This effect is more likely to occur in distant markets, and in situations where importing involves non-homogeneous and rarely imported goods. Furthermore, new import activities from a new export destination continue regardless of whether the firm remains as an exporter in the market. These patterns are consistent with a mechanism whereby exporting allows firms to acquire market-specific experience that lowers future sourcing costs in that market.The effect of export entry on sourcing costs has implications that go beyond qualitative insights: according to our quantitative exercise, import costs fall 15% after export entry.

Suggested citation

F, Albornoz; E, García-Lembergman (2026) Importing after exporting, Centre for Inclusive Trade Policy, Working Paper 038

Non-Technical Summary

This paper studies how firms' experience in export markets can help them become better importers. Exporting and importing are often treated as separate activities: exporters sell goods abroad, while importers source inputs, machinery, components, or materials from foreign suppliers. Yet many firms do both, and the way these activities interact matters for trade policy, industrial development, and productivity growth.

Using detailed customs data covering the universe of Argentine firms' export and import transactions, the paper documents a clear pattern: when a firm starts exporting to a new country, it becomes more likely to start importing from that same country in the following year. This is not simply because larger or more productive firms tend to trade more in general. The effect is specific to the country where the firm gained export experience. In other words, exporting to a new market makes a firm more likely to source from that same market later, rather than simply increasing imports from everywhere.

The paper argues that the main reason is learning. Entering a foreign market as an exporter exposes firms to local business networks, logistics providers, intermediaries, regulations, standards, and commercial practices. It also gives firms opportunities to identify reliable suppliers, understand input quality, and learn how to manage transactions in that country. This market-specific knowledge reduces the cost and uncertainty of importing from the same place later on.

This mechanism is important because importing is not a simple transaction. Firms need to find suitable suppliers, assess quality, negotiate contracts, manage customs procedures, comply with regulations, and organize transport and payments. These tasks are especially difficult when inputs are differentiated, technologically complex, rarely imported, or sourced from distant and unfamiliar markets. The paper finds that the effect of export experience is stronger precisely in these cases, supporting the idea that exporting helps firms overcome information and search barriers.

A key contribution of the paper is to distinguish this learning mechanism from other explanations. One possibility is that firms import after exporting simply because exporting makes them larger or more productive. But if this were the main explanation, export entry into one market should increase imports from many markets. The evidence does not support this. Another possibility is that exporting and importing share operational costs only when both activities happen at the same time. However, the paper shows that firms may start importing from a market even after they stop exporting there. This suggests that what matters is not only simultaneous cost sharing, but the lasting knowledge acquired through export experience.

The paper also quantifies the size of the effect. The estimates imply that export entry reduces the fixed cost of importing from the same market by about 15 percent. For the median firm, the estimated fixed cost of starting to import from a country falls from around US$110,800 without prior export experience to around US$94,000 after exporting to that country. This is an economically meaningful reduction, especially for firms facing high barriers to finding and establishing relationships with foreign suppliers.

The findings have important policy implications. Export promotion policies are often justified because they help firms reach new customers abroad. This paper suggests that they may also help firms improve their sourcing strategies. By entering new export markets, firms acquire knowledge that can later help them access better, cheaper, or more suitable foreign inputs. Since imported inputs can raise productivity, quality, and competitiveness, the benefits of export promotion may extend beyond export sales alone.

More broadly, the paper shows that internationalisation is a cumulative process. Exporting is not only a way to sell abroad; it can also be a way to learn about foreign suppliers. Policies that help firms enter new markets may therefore generate wider gains by improving their access to global supply chains.

Importing after Exporting

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January 2026

Abstract

Using a comprehensive database of Argentine firms, we show that exporting to a new destination increases the probability of a firm beginning to import from that market within mainly the lapse of one year. We develop a model of import and export decisions to study the effect of productivity and import costs on the intensive and extensive margins of importing. We show that "importing after exporting" implies that export entry reduces the fixed cost of importing from that market. This effect is more likely to occur in distant markets, and in situations where importing involves non-homogeneous and rarely imported goods. Furthermore, new import activities from a new export destination continue regardless of whether the firm remains as an exporter in the market. These patterns are consistent with a mechanism whereby exporting allows firms to acquire market-specific experience that lowers future sourcing costs in that market. The effect of export entry on sourcing costs has implications that go beyond qualitative insights: according to our quantitative exercise, import costs fall 15% after export entry.

JEL Classification Codes: F10, F12, F14
KEYWORDS: Importing, exporting, trading costs, export experience.

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1 Introduction

It is well documented that importers and exporters are more productive than firms serving only domestic markets. Firms engaged in international trade also employ more skilled labor and capital, pay higher wages, and meet higher quality standards. Firms involved in both activities ("global firms") score even higher on these margins (Bernard, Jensen, Redding, and Schott 2012, Kasahara and Lapham 2013, Manova and Zhang 2012, Bernard, Jensen, Redding, and Schott 2018). Yet, surprisingly, the international trade literature has largely examined exporting and importing in isolation.[1] As a result, little is known about how exporting and importing interact within the firm.

We begin by documenting a novel fact about the relationship between exporting and importing. Using customs records covering the universe of Argentine firms' export and import transactions, we find that firms that start exporting to a new country are 83% more likely to start importing from that same country within the following year. This fact is intriguing: why does a new export destination become a new source of imports, and why does the effect emerge with a lag? Because both activities may respond to productivity, "importing after exporting" could reflect a productivity-driven process through which firms become more efficient. An alternative explanation is that exporting reduces import costs. *A priori*, it is unclear whether the effect of export entry on sourcing reflects changes in productivity or in import costs. Moreover, if export entry lowers import costs, it is unclear whether this operates through concurrent complementarities between exporting and importing or through experience that makes establishing new import sources less costly. In this paper, we answer these questions and discuss their relevance for understanding firms' export and import dynamics in global markets.

We develop a *two-period* model of exporting and importing that *naturally links* the two trade decisions. As in Bernard, Jensen, Redding, and Schott (2018) and Blaum (2024), we combine a standard model of sourcing decisions (e.g. Antras, Fort, and Tintelnot 2017, Blaum, Lelarge, and Peters 2019, Gopinath and Neiman 2014, Halpern, Koren, and Szeidl 2015) with the canonical model of exporting. The innovation is dynamic and destination-specific: export entry in Period 1 builds destination-specific relationship capital—information about suppliers, compliance know-how, and intermediary links—that lowers the firm's per-unit cost of importing from that same destination in Period 2. This timing makes the decisions interdependent in a natural way. Although the cost reduction runs from exporting in Period 1 to importing in Period 2, the Period 1 choices are jointly determined: the decision to export *internalizes the expected Period 2 payoff* from cheaper sourcing

[1] Redding (2011), Bernard, Jensen, Redding, and Schott (2012), Melitz and Redding (2014) review the literature on exporting. There is far less work on importing: Halpern, Koren, and Szeidl (2015) and Amiti and Konings (2007) link importing to higher productivity; Goldberg, Khandelwal, Pavcnik, and Topalova (2010) show that importing expands product scope; and Blaum, Lelarge, and Peters (2019) and Antras, Fort, and Tintelnot (2017) model firms' sourcing decisions. Early studies considering both import and export decisions include Kasahara and Lapham (2013), who find a positive association between importing and exporting sunk costs, and Bas (2012), Bas and Strauss-Kahn (2014), who show that importing increases the probability of becoming an exporter. More recent examples are Blaum (2024) and Bernard, Jensen, Redding, and Schott (2018).

created by export experience, and the decision to import weighs the prospect of such future cost reductions if the firm exports now. Because the key informational and contracting frictions are largely resolved at first entry, re-entry into the same destination need not lower costs again; the accumulated relationship capital may also depreciate slowly without continued engagement.

We first use the model's predictions to disentangle two mechanisms that could explain importing after exporting: (i) firm-wide productivity improvements and (ii) destination-specific reductions in import costs following export entry. If the latter mechanism is operative, the impact of export entry on subsequent imports should be concentrated in the same destination. By contrast, firm-wide productivity shocks would increase imports from all markets. We implement tests based on this distinction and find evidence most consistent with export entry reducing market-specific import costs. This result naturally raises a new set of questions.

Why does exporting reduce the cost of importing? Are import and export costs *complements*? This would be the case if, for example, both activities shared the same concurrent operational fixed costs. Does export experience in a market allows the firm to acquire information about the market and reduce import costs? Does this type of *complementarity* take place at the destination level? This would be the case if, for example, finding input sources in a particular market requires knowledge about potential suppliers, and such knowledge can be acquired through prior exporting experience in that market.

A central contribution of our analysis is to clarify the nature of the import-cost savings associated with export entry. Having ruled out firm-wide productivity gains as the main driver of "importing after exporting," we distinguish between two alternative mechanisms: concurrent complementarities in import and export costs, and informational or experience-based gains that lower the cost of establishing import relationships in the export destination.

The model delivers predictions that allow us to discriminate between these mechanisms. First, concurrent complementarities in fixed costs imply that exporting and importing must occur simultaneously. By contrast, under an experience-based mechanism, supplier relationships formed during export entry may persist even after exporting ceases. In line with this prediction, we find a higher probability of importing from the new export destination even when firms stop exporting immediately after entry. Second, concurrent operational cost savings should apply regardless of whether the export destination is new or previously served. This prediction is rejected by the data. Export entry affects subsequent importing only when the destination is new to the firm; the effect vanishes for re-entrants. Third, if exporting facilitates importing by providing information and easing supplier search, the effect should be stronger in markets where sourcing is more difficult ex ante. Consistent with this interpretation, we find larger effects (i) in more distant destinations, (ii) for varieties that are relatively unfamiliar within the firm's sector, (iii) for differentiated and medium- or high-technology inputs, and (iv) in culturally or linguistically more distant markets.

Our analysis underscores the role of *experience* in sourcing decisions, expressed as lower destination-specific import costs. Experience acquired in a market after export entry gives firms opportunities to learn about—and establish links with—potential suppliers. This is more than a qualitative insight: we use our model to *quantify* the effect of export entry on import fixed costs. For the median firm, import fixed costs in a destination *fall by 15%* after export entry. While the estimated fixed cost to start sourcing from a market without export experience is US$110,800, the corresponding cost for importing *after* export entry is US$94,000.[2] Notably, the entire distribution of estimated import fixed costs shifts downward for firms that enter a destination as exporters before importing from it. Importantly, estimated source-country fixed costs *vary with firms' recent export experience* in that market. As noted by Antras, Fort, and Tintelnot (2017), the literature generally assumes homogeneous import costs, an assumption at odds with the data and contradicted by our results. We rationalize the observed variation in import fixed costs as reflecting differences in destination-specific experience that can be acquired by exporting.

Our work contributes to understanding the connection between importing and exporting. Early research emphasizes how importing favors export performance. For example, Bas (2012), Bas and Strauss-Kahn (2014) show that importing intermediate goods (from any source) reduces marginal costs (or raises quality) and thereby expands the extensive margin of exports. Our findings are compatible with firms using imported intermediates to prepare for new export activities, but we stress different aspects of the import–export interplay. Closer to our approach, Amiti and Davis (2012), Bache and Laugesen (2006), and Kasahara and Lapham (2013) highlight complementarities between the costs of exporting and importing; for instance, Kasahara and Lapham (2013) provide evidence of concurrent complementarity in sunk costs. More recently, Bernard, Jensen, Redding, and Schott (2018) emphasize that exporting increases firm revenue, making it more likely that the firm will find it profitable to incur fixed costs of sourcing from *any* market. Similar to productivity gains, that mechanism generates interdependence between import and export decisions across markets. In contrast, our paper emphasizes a different facet of the interaction—one not driven by productivity, scale, or variable-cost reductions, but by interconnected activities confined to the *same* foreign market. In particular, we highlight the importance of experience acquired in the import market after export entry.

The existence of complementarities confined to the same market has important implications. Consider first the effect of currency devaluations on aggregate productivity. As noted above, the literature on importing (e.g. Halpern, Koren, and Szeidl 2015, Amiti and Konings 2007) finds that importing is associated with higher productivity. By increasing the cost of imported inputs, devaluations may depress aggregate productivity, as emphasized by Gopinath and Neiman (2014). However, assessing the net effect on importing—and hence on productivity—requires accounting for the expansion of exporters and the associated rise in demand for imported inputs. Blaum

[2] As a benchmark, Halpern, Koren, and Szeidl (2015) find that fixed costs of importing for local firms are about 50% higher than for foreign firms in Hungary; in our setting, exporting reduces import fixed costs by 15%.

(2024) make precisely this point: sufficiently large devaluations can raise import intensity and aggregate productivity. Our emphasis on destination-level complementarity adds an additional channel through which a devaluation may affect productivity: export entry in a market alters firms' sourcing decisions for that same market.

Second, as noted by Amiti, Itskhoki, and Konings (2014), when a firm sources from an export market, bilateral exchange-rate pass-through into destination prices is lower. Our paper emphasizes not only that large exporters are often large importers, but also that exporters are more likely to import inputs *from their new export markets*. According to our calculations, one year after export entry, new imports from that market amount to roughly 50% of the value generated by exports in the new destination. This market-specific connection between exporting and importing attenuates the effect of bilateral exchange-rate shocks on exporters' decisions.

Third, our findings caution against interpretations of "learning by exporting" that rely exclusively on improvements in core productivity after export entry (e.g., De Loecker (2013)). Part of the evidence commonly attributed to learning by exporting—even holding core productivity constant—can arise because a new export destination triggers a re-optimization of import sourcing that increases efficiency. At the same time, our results give new content to "learning by exporting" by identifying a specific channel of efficiency gains. Finally, although our analysis is purely positive, it could have normative implications if firms do not fully internalize how reaching new export destinations affects subsequent sourcing decisions. A full treatment is beyond our scope, but if such under-internalization exists, "importing after exporting" would provide a novel rationale for export-promotion policies.

Our paper highlights that importing is not a simple activity. In making import decisions, firms must evaluate how importing intermediate goods affects production costs and weigh these against the fixed costs of dealing with foreign suppliers. However, this decision requires knowledge about products and potential suppliers that is not fully available *ex ante*. Dasgupta and Mondria (2018) formalize the role of incomplete information with rationally inattentive importers and study the implications of information and trade costs for bilateral trade shares; in their quantitative exercise, information costs are large and magnify the effect of trade costs on trade flows. In our setting, experience in foreign markets is a way to overcome informational barriers to importing, and our results suggest that exporting is a source of such experience. This paper also connects to recent work on export dynamics that emphasizes the role of export experience in shaping firms' dynamics in international markets (e.g. Albornoz, Calvo Pardo, Corcos, and Ornelas 2012, Timoshenko 2015). While that literature focuses on uncertainty about demand and profitability abroad, our findings show that experience in new export markets also shapes firms' sourcing decisions. In addition, we provide quantitative estimates indicating that the cost-saving effect of experience is economically relevant.

There is also a large development literature on environments with limited information and on how agents overcome those frictions. Consistent with our mechanism, Startz (2023) documents that Nigerian small final-good importers expend substantial resources on travel to reduce informational barriers and contracting frictions. We show that even large, formal firms are not fully informed and can acquire information about foreign suppliers by exporting to new destinations.

Finally, when extending our analysis to analyze importing after exporting using non-linear probability models, we also make a methodological contribution that extends some of the insights in Head and Mayer (2019) and Guimarães, Figueirdo, and Woodward (2003). We show that a Poisson pseudo–maximum likelihood (PPML) estimator provides a useful local approximation to fixed-effects logit when the binary outcome is a rare event. In our application, the baseline probability of initiating imports from a given destination is below one percent. In this region, the the PPML closely approximates the logit function. We formalize the conditions under which the score equations of the two estimators coincide to first order, and show—both in simulations and in the data—that fitted probabilities and average marginal effects are nearly indistinguishable. Beyond our application, this approximation is attractive because PPML accommodates high-dimensional fixed effects and a large mass of zeros, without facing the incidental-parameters problem that arises in nonlinear fixed-effects logit models. For completeness, we also report fixed-effects logit estimates with analytical bias correction as a robustness check.

The remainder of the paper is organized as follows. Section 2 describes the data. Section 3 documents the main empirical fact. Section 4 presents the theoretical framework and derives main testable predictions that distinguish between import cost savings and firm-wide productivity shocks, as well as between contemporaneous operational cost reductions and import cost savings arising from accumulated experience in the market. Section 5 provides empirical evidence supporting the role of export experience in reducing importing fixed costs. Section 6 discusses other alternative explanations. Section 7 quantifies the implied decline in import costs associated with export entry. Section 8 concludes.

2 Data

Our analysis uses comprehensive Argentine customs data covering the universe of export and import transactions between 2002 and 2012. The data report, for each year and firm, the value of exports and imports (in U.S. dollars), disaggregated by origin or destination country and by product at the HS 6-digit level. We focus on manufacturing firms and restrict imports to intermediate goods inputs and capital goods, as defined by the Broad Economic Categories (BEC) classification.[3]

We merge the customs records with administrative data from the Federal Administration of Public Revenue (AFIP), which provide firm-level information on formal employment and the firm's main sector of activity. Since our analysis focuses on extensive-margin decisions at the firm level,

[3]For the median firm, these goods account for 89.5% of total import value.

we restrict attention to Argentina's top 50 trading partners. This restriction substantially reduces dimensionality and the prevalence of zero trade flows, while still accounting for more than 98% of Argentina's total trade.[4]

For the main analysis, our baseline unit of observation is the firm–country–year, which is the relevant variation given that the mechanism of interest operates through destination-specific fixed import costs.[5] To obtain this data, we aggregate HS 6-digit product lines at the firm-country-year level, which preserves the relevant extensive margin while avoiding high-dimensional, intermittent product-level trade spells and the large number of zeros generated by very thin flows. In Section 5, we extend the data to the firm–country–product–year level to study heterogeneity and to test the mechanisms underlying our main empirical findings.

The full manufacturing sample contains 22,662 firms. To abstract from firm entry and exit over the sample period, we further restrict attention to firms that are report positive employment every year between 2003 and 2012. This yields a balanced panel of 10,770 firms.[6] Table 1 reports summary statistics. In the average year, Argentine firms export a total of US$33,955 million and import intermediate goods worth US$18,223 million. Firms enter 5,760 new export destinations and establish 7,299 new import sources per year (firm-by-market combinations).

[4]As a robustness check, we replicate the analysis using an alternative aggregation into ten geographic regions: ASEAN+3 (ASEAN), Rest of Asia (RAsia), European Union (EU), Rest of Europe (REu), Africa, Australia, Mercosur, Rest of South America (RSA), North America (NA), and Central America (CA). Results are similar and are available in earlier versions of the paper or upon request.

[5]Such costs may capture learning about foreign suppliers, the development of logistics complementarities, or the accumulation of institutional knowledge specific to a country.

[6]Because international trade is highly concentrated among large firms, this restriction preserves the vast majority of aggregate trade flows. Main results are almost identical if all firms are included (See Appendix Table A7).

Table 1: Descriptive statistics: by year

Year	Imports (millions US$)	Exports (millions US$)	New sources #	New destinations #
2003	6449	16154	8038	6722
2004	9633	19998	7206	6427
2005	12316	24076	7876	6723
2006	14791	28098	7486	6270
2007	18943	34838	7515	6176
2008	24387	43768	7572	5865
2009	15098	34398	6397	5227
2010	23424	41385	7886	5115
2011	29443	49909	6925	4857
2012	27743	46925	6085	4213
Average	18223	33955	7299	5760

Exports and imports values are in millions of US$

In our analysis, we will exploit two additional features of exporting. First, around 25% of firms that enter a new export destination are re-entrants, defined as firms that exported to a market in year $t-2$ or earlier, did not export in $t-1$, and re-entered in t (see Appendix Table A1). Second, a remarkably large share of firms that reach a new destination exit within a year: only about 50% of firms that begin exporting to a new market in year t remain active there two years later.

3 The main fact: importing after exporting

In this section, we unconver a new fact about the relationship between exporting and importing at the country level. Specifically, we document how past export entry into a foreign market is associated with subsequent sourcing decisions from that same country. To do so, we exploit firm–country–year variation and study the extensive margin of importing following export entry.[7]

Our baseline specification is given by

$$New\ Origin_{ijt} = \alpha Export\ Entry_{ij,t-s} + \beta X_{i,t} + \{FE\} + \varepsilon_{ijt}. \tag{1}$$

The dependent variable, $New\ Origin_{ijt}$, is an indicator equal to one if firm i imports from market j in year t for the first time. $Export\ Entry_{ij,t-s}$ equals one if firm i exports to destination j for the

[7] In this section, we assess aggregate effects at the firm–country level, abstracting from the product dimension. In Section 5, we extend the analysis to the country–product level to examine the underlying mechanisms.

first time in $t-s$, where $s \in \{0,1,2,3,4\}$. For reasons explained below, our baseline specification focuses on the case $s = 1$. $X_{i,t}$ denotes a vector of time-varying firm characteristics. We exploit the multidimensional structure of the dataset and include a rich set of fixed effects, $\{FE\}$. In particular, $\{FE\}$ comprises firm, year, sector, and country fixed effects, as well as their interactions (firm–year, firm–market, and market-sector-year fixed effects).

Since, by definition, a firm can only *start* importing or exporting in a market if it was previously inactive, we restrict the sample to firm–market pairs (i,j) with no prior trade. After import entry, a pair is permanently excluded from the sample in all subsequent periods. For exports, instead, a pair is excluded only while the firm is actively exporting in $t-s-1$ (the period immediately preceding potential entry), but re-included if the firm stops exporting at some point, allowing us to also capture the effect of re-entry into export markets.[8] Finally, because errors may be correlated across markets and over time, we cluster standard errors at the firm level.

A challenge arises from the binary nature of the dependent variable. Linear probability models (LPMs) conveniently accommodate multiple fixed effects and offer a transparent interpretation of marginal effects, but they may yield predicted probabilities outside the $[0,1]$ range. Nonlinear probability models avoid this issue yet can suffer from small-sample bias in the presence of high-dimensional fixed effects. To ensure our findings are not driven by model choice, we implement three complementary estimation strategies.

First, we estimate a linear probability model (LPM) with a rich set of fixed effects. We take this as our benchmark specification because, in our setting, it offers several advantages: it avoids the finite-sample (incidental-parameters) bias that arises in nonlinear models with high-dimensional fixed effects, and it yields coefficients that are directly interpretable as average effects.

Second, we re-estimate our main specification using Poisson pseudo–maximum likelihood (PPML) with high-dimensional fixed effects, extending the approach in Head and Mayer (2019). Although PPML is typically applied to counts, our outcome—import entry into a market—is a rare binary event (baseline probability $< 1\%$), for which we show that the PPML exponential mean closely approximates the logistic link (Guimarães, Figueirdo, and Woodward 2003).[9] PPML is therefore well suited to our setting with a rare-event outcome and rich fixed effects: its separable likelihood accommodates extensive fixed-effect structures and avoids the incidental-parameters problem that affects fixed-effects logit.[10]

Third, in a sensitivity analysis we estimate a logit model with high-dimensional fixed effects, extending the approach of Martin, Mayer, and Thoenig (2008) and Martin, Mayer, and Thoenig (2012) to a setting with more than half a million fixed-effects. To address the incidental-parameters

[8] In Section 5, we show that the effect of export re-entrants is smaller.

[9] Appendix A.2.1 formalizes this equivalence and shows that, in our data, predicted probabilities from logit and PPML are nearly indistinguishable across the entire support when fixed effects are not included.

[10] This is crucial in our application and also provides a practical approach for other papers interested in similar high-dimensional panels.

problem, we implement the analytical bias corrections proposed by Fernández-Val and Weidner (2016) and Hinz and Stammann (2021). The corresponding estimates are reported in Appendix Table A5.

We begin by presenting the results of the linear probability model. Table 2 reports the LPM estimates from equation (1) for the case $s = 1$.[11] Across all specifications, we document a novel fact: firms that begin exporting to a market are significantly more likely to start importing from that same market in the subsequent year. Column (1) includes firm fixed effects to control for invariant firm characteristics and market–year fixed effects to absorb aggregate market-level shocks (e.g., changes in bilateral exchange rates, aggregate demand, or costs). The estimates indicate that export entry raises the probability of importing from the same market in the following year by 0.5 percentage points. Column (2) adds firm–market fixed effects to absorb time-invariant bilateral relationships that could jointly affect import and export decisions (e.g., a firm's long-term business ties with a market). Column (3) further introduces market–year–sector fixed effects to account for sector-specific demand or cost shocks within a given market (e.g., sectoral growth in Brazil that could induce both importing and exporting). The estimated coefficient remains stable at about 0.010.

While firm fixed effects capture time-invariant firm heterogeneity, a possibility is that importing after exporting might reflect changes in a firm's core productivity or scale that raise the likelihood of both exporting and importing. Columns (4)–(7) address this by controlling for such productivity shocks or scale changes. Columns (4)–(6) add changes in firm-level variables that, in most trade models, increase with productivity: exports, imports, and employment. The coefficient remains stable at roughly 0.009, indicating that even among firms with similar growth rates, those that started exporting to a new market are more likely to start importing from that same market in the following year. Finally, Column (7) replaces these proxies with more granular firm–year fixed effects, thereby comparing a given firm's decisions within the same year across countries. This specification absorbs all firm-specific shocks that vary over time but are common across markets (core productivity shocks in most trade models). The effect remains positive and significant: export entry increases the probability of importing from the same market in the following year by 0.7 percentage points. This is equivalent to an 83% increase relative to the baseline probability of importing from a new market. It is also reassuring that the main coefficient remains stable across specifications. Because the regression in Column (7) includes the full set of fixed effects, we adopt it as our preferred specification.

[11] Appendix reports results for $s = 2$,$s = 3$,$s = 4$.

Table 2: Probability of importing from a new market: LPM

Dep variable: New Origin$_{ijt}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$Export\ Entry_{ijt-1}$	0.00489***	0.00942***	0.00961***	0.00981***	0.00962***	0.00981***	0.00697***
	(0.00065)	(0.00069)	(0.00069)	(0.00069)	(0.00069)	(0.00069)	(0.00067)
$\Delta log(1 + Exports)_{it}$				0.00007***		0.00007***	
				(0.00001)		(0.00001)	
$\Delta log(1 + Imports)_{it}$				0.00059***		0.00059***	
				(0.00001)		(0.00001)	
$\Delta log(1 + Labor)_{it}$					0.00188***	0.00152***	
					(0.00029)	(0.00028)	
Observations	4,936,092	4,936,092	4,936,092	4,936,092	4,936,092	4,936,092	4,936,092
R-squared	0.03135	0.25871	0.26399	0.26474	0.26402	0.26476	0.30086
Firm FE	yes	yes	yes	yes	yes	yes	yes
Market-Year FE	yes	yes	yes	yes	yes	yes	yes
Market-Year-Sector FE	no	no	yes	yes	yes	yes	yes
Firm-Market FE	no	yes	yes	yes	yes	yes	yes
Firm-Year FE	no	no	no	no	no	no	yes

A unit of observation is a firm × country × year for the period 2003–2012. The dependent variable, $New\ Origin_{ijt}$, equals 1 when the firm starts sourcing from a new origin in year t. The mean of this variable is 0.0084. $Export\ Entry_{ijt-1}$ equals 1 when the firm starts exporting to country j in year $t-1$. Variables in columns (3)–(6) are expressed as $log(1+x)$ to retain observations with zero trade values. Columns (1)–(7) report OLS estimations with alternative sets of controls and fixed effects. Standard errors are clustered at the firm level and reported in parentheses. ***, **, * denote statistical significance at the 1, 5, and 10 percent levels. Source: Exports and imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

After showing the main fact in the linear probability model, we estimate the PPML version of the main equation. Table 3 reports PPML estimates using fixed-effects structures that parallel the LPM specifications. In a discrete-time setting with an absorbing outcome, jointly including firm–market and year fixed effects induces perfect prediction (separation), in which case maximum likelihood estimates do not exist. We therefore exclude firm–market fixed effects in the nonlinear model estimations while retaining all other fixed effects equivalent to those in the main table.[12] Across all specifications, we again find the main fact: firms that start exporting to a new destination are significantly more likely to start importing from that same destination in the following year.

[12] For comparability, Appendix Table A8 shows that omitting firm–market fixed effects leaves the LPM coefficients virtually unchanged.

Table 3: Probability of importing from a new market: PPML

$NewOrigin_{ijt}$	(1)	(2)	(3)	(4)	(5)	(6)
$Export\ Entry_{ijt-1}$	0.260***	0.284***	0.321***	0.284***	0.321***	0.279***
	(0.032)	(0.033)	(0.032)	(0.033)	(0.032)	(0.035)
$\Delta log(1 + Exports)_{it}$			0.008***		0.007***	
			(0.002)		(0.002)	
$\Delta log(1 + Imports)_{it}$			0.151***		0.151***	
			(0.002)		(0.002)	
$\Delta log(1 + Labor)_{it}$				0.300***	0.172***	
				(0.030)	(0.032)	
Observations	4,936,092	4,936,092	4,936,092	4,936,092	4,936,092	4,936,092
Non-Sep	3,905,020	2,767,474	2,767,474	2,767,474	2,767,474	841,869
% Δ Prob.	29.66	32.91	37.91	32.87	37.79	32.16
Firm FE	yes	yes	yes	yes	yes	yes
Market FE	yes	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes	yes
Market-Year FE	no	yes	yes	yes	yes	yes
Market-Year-Sector FE	no	no	yes	yes	yes	yes
Firm-Year FE	no	no	no	no	no	yes

A unit of observation is a firm × country × year for the period 2003–2012. The dependent variable, $New\ Origin_{ijt}$, equals 1 when the firm starts sourcing from a new origin in year t. $Export\ Entry_{ijt-1}$ equals 1 when the firm starts exporting to country j in year $t-1$. Columns (1)–(7) report PPML model estimations with alternative sets of controls and fixed effects. % Δ Prob.= 100 × (exp(β) − 1) reports the percentage change in the probability of new origin after export entry relative to baseline probability. Standard errors clustered at the firm level are in parentheses. ***, **, * denote significance at the 1, 5, and 10 percent levels. Source: Official customs data; employment data from AFIP.

The main fact is robust to a set of sensitivity analyses. First, Appendix Table A5 reports fixed-effects logit estimates with analytical bias corrections. Second, the findings are robust to alternative productivity proxies (Appendix Table A12). Third, they hold when restricting to firms that always trade with at least one market (Appendix Table A10) and when we deal with zeros in firm-level controls by applying the inverse hyperbolic sine (Appendix Table A9. Fourth, they persist when including firms that are temporarily inactive (Appendix Table A7). Fifth, we obtain similar results when limiting the sample to the firm main export product to avoid concerns regarding multi-product firms (Appendix Table A6). Finally, relaxing the LPM fixed-effects structure by dropping firm–market fixed effects yields nearly identical estimates (Appendix Table A8).

Dynamic Effects of Export Entry Over Time.

Our baseline results show that export entry increases the probability of importing from the same market within one year. A natural question is whether this effect is confined to the first year after export entry or whether it persists, grows, or fades over time. Examining the dynamic pattern can also shed light on the channels behind importing after exporting. We therefore estimate an event-study specification in which the "event" is the first year a firm begins exporting to a given market. Formally, we estimate:

$$New\ Origin_{ij,t} = \sum_{\ell=-L}^{K} \beta_\ell \, \mathbb{I}\{t - t^*_{ij} = \ell\} + \gamma_{i,t} + \gamma_{sj,t} + \gamma_{ij} + \varepsilon_{ij,t},$$

where t^*_{ij} denotes the first year in which firm i exports to market j, and $\mathbb{I}\{\cdot\}$ are event-time indicators. We normalize $\beta_{-1} = 0$, so all coefficients are interpreted relative to the year prior to export entry. The regression includes the fixed effects of our baseline specification: firm–year, firm–market, and sector–market–year fixed effects. To avoid sparsity at the tails, leads and lags beyond $-L$ and K are binned.

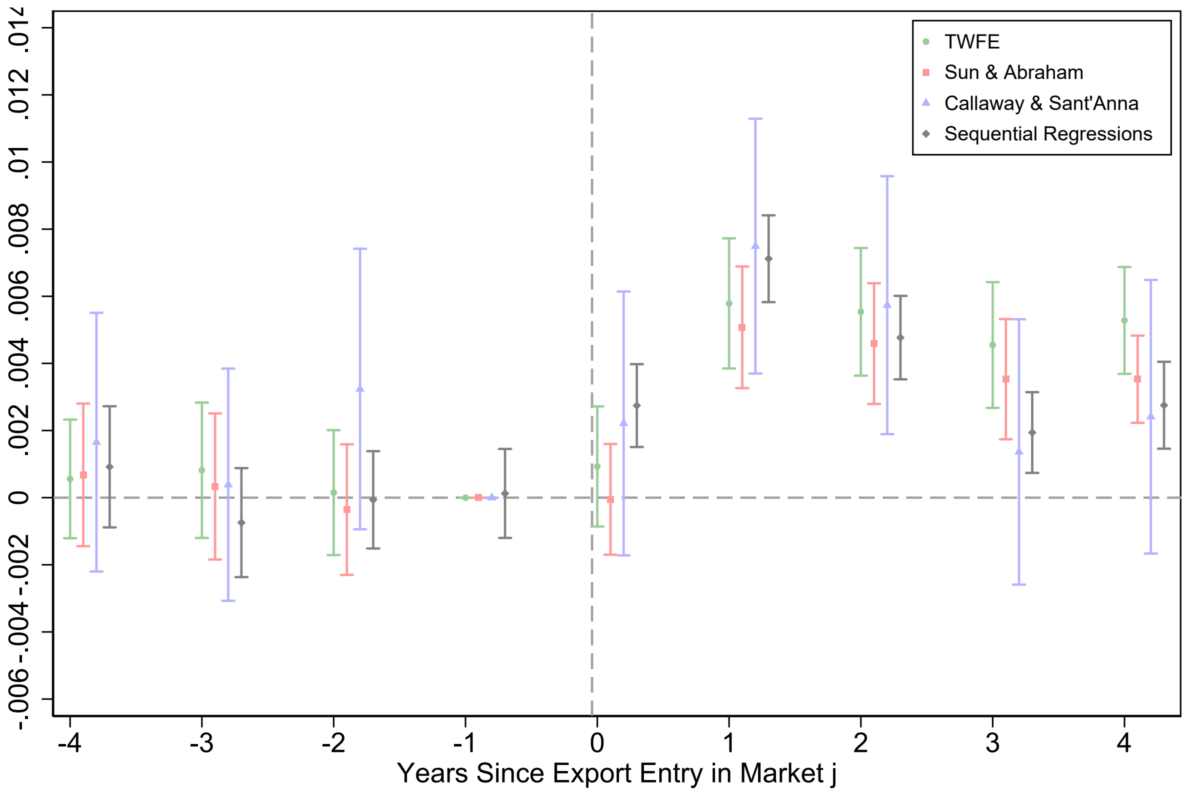
Figure 1 reports dynamic effects using three event-study estimators: the standard two-way fixed-effects (TWFE) estimator, the interaction-weighted estimator of Sun and Abraham (2021), and the group–time average treatment effect (ATT) estimator of Callaway and Sant'Anna (2021).[13] For completeness, and for comparison with the main table, we also report estimates based on a sequence of regressions of Equation 1, running separate regressions one at a time using $ExportEntry_{ij,t-s}$ as the regressor for each $s \in \{-4, -3, -2, -1, 0, 1, 2, 3, 4\}$. For example, $s = 1$ corresponds to the coefficient in Table 2 (See Appendix A.4.5 for details of the procedure).

Across the four methods, we observe similar patterns. First, we find no evidence of effects on the probability of new imports in the years preceding export entry to market j, indicating no pre-trends. At $s = 0$, some specifications show a contemporaneous effect, although it is not always statistically significant; this may reflect simultaneity of the two activities within a calendar year or partial-year timing, as emphasized by Bernard, Boler, Massari, Reyes, and Taglioni (2017). Importantly, across all methods, the effect one year after entry ($s = 1$) is more than three times larger than the contemporaneous effect.

The effect peaks one year after export entry ($s = 1$), which is the primary focus of our analysis. It remains substantial at $s = 2$, and then declines through the third and fourth years. This dynamic pattern suggests that most of the impact materializes within the first two years after entry. The evidence is consistent with a mechanism in which firms gain experience from exporting that subsequently facilitates importing from that market—a possibility we examine in subsequent sections. Firms that do not identify suitable suppliers within the first two years may simply lack opportunities in that market; moreover, the knowledge acquired upon entry may gradually depreciate over time.

[13] The latter is not suitable for absorbing states, so we do not drop observations after import entry in that specification.

Figure 1: Probability of starting to import from j in year t after export entry to j in year $t-s$



Note: The figure plots coefficients from regressions where the dependent variable is import entry from a new origin ($NewOrigin_{ij,t}$) and the regressors are indicators for years since export entry to destination j. All specifications include firm–year, firm–market, and market–year–sector fixed effects. Vertical bars denote 95% confidence intervals. Source: official customs data from Argentina.

4 A Two-Period Model of Importing and Exporting

4.1 The Environment

We develop a two-period model in which firms decide whether to export to and source inputs from a foreign market in each period, as well as the optimal quantities. By importing, the firm can have access to higher quality inputs which reduces its marginal costs. However, importing from a market requires to pay fixed import costs. These costs can be destination-specific and generate extensive-margin decisions that are central to the model.

A key feature of the environment is the presence of complementarities across the trade activities. Exporting and importing from the same destination share common fixed components, such as logistics and market-specific operational costs, so undertaking both activities simultaneously reduces fixed costs. In addition, export entry in a destination can lower future fixed costs of importing from that market through the accumulation of experience. For example, by allowing firms to learn about reliable input suppliers in that destination. As a result, fixed import costs can be firm–market specific and depend on the firm's export history in that destination.

We start from an equilibrium in which the firm i has a sourcing strategy, $\Omega_{i,1}$, and an optimal set of export destinations. We then focus in studying firms' decisions to enter new import and export markets following new shocks. Decisions from there are made sequentially. In period 1, firms decide whether to enter each market as exporters. In period 2, they choose whether to export, import, or engage in both activities, as well as the optimal values.

This timing structure simplifies the analysis and creates a tight empirical link between export entry into a destination and subsequent import entry from the same destination, while helping to distinguish some of the underlying mechanisms that could be at play.

We begin by characterizing the firm's optimal decisions and revenues in each period. We then solve the model by backward induction, first analyzing export and import decisions in period 2 and subsequently the export entry decision in period 1.

4.2 Per Period Export Revenues

Appendix B.3 presents a detailed characterization of the firm's per-period static problem. As is standard in the trade literature, we assume segmented export markets. Combining the global sourcing framework of Antras, Fort, and Tintelnot (2017) with the heterogeneous-firm model of Melitz (2003), we obtain that in each period $t \in 1, 2$ the revenue earned by firm i in market j, conditional on being active, denoted r_{ijt}, is given by

$$r_{ijt}(\Omega_{it}, \varphi_{it}) = \left[\frac{\varphi_{it}}{c(\Omega_{it})}\right]^{\sigma-1} A_{jt}\mu_{ijt},$$

where $\sigma > 1$ the demand elasticity of substitution. Here, φ_{it} is firm-wide core productivity. A_{jt} captures market-specific demand conditions, and μ_{ijt} captures an idiosyncratic demand shock for the firm product in a market, which be refer to as "firm market profitability".

Ω_{it} denotes the firm's sourcing strategy, defined as the set of countries from which the firm i imports. The function $c(\Omega_{it})$ represents the firm's optimal marginal cost associated with that sourcing strategy. As shown in the Appendix, access to imported inputs from better sources could improve input quality in the production function and thereby reduce $c(\Omega_{it})$, capturing the potential benefit of importing in terms of revenues.

There are three key determinants of firm revenues in a market j which can incentivize export entry. First, firms with higher firm-wide core productivity (φ_{it}) are more likely to export to any destination j. Second, firms are more likely to export to markets with higher demand A_{jt}. Third, firms are more likely to export to destinations with higher firm-market specific idyiosincratic demand (firm-market profitability), μ_{ijt}. Given these features of export entry, it follows:

REMARK **1** *Conditional on firm-wide core productivity φ_{it}, and market-demand, A_{jt}, a positive* *shock to market profitability of a firm i in market j, μ_{ijt}, increases the probability of export entry in market j.*

This remark is crucial to understand the underlying variability in our empirical preferred specification, reported in column (7) of Table 2 in Section 3. As we include firm-year fixed effects, we control for shocks to firm-wide productivity. In addition, sector-market-year fixed effects control for any shock in time to a specific destination, $A_{j,t}$. Therefore, we exploit variability in export entry coming from shocks to the firm's profitability in a given market.[14]

Aggregating across destinations, firm total revenues are given by:

$$r_{it}(\Omega_{it}, \varphi_{it}) = \left[\frac{\varphi_{it}}{c(\Omega_{it})}\right]^{\sigma-1} \sum_{j \in \Omega^X} A_{jt}\mu_{ijt}.$$

where $\Omega_{it}^X \equiv \{j : r_{ijt} > 0\}$ as the set of export markets in which firm i is active as exporter in a given year. It will be convenient to define $B_{it} = \sum_{j \in \Omega^X} A_{jt}\mu_{ijt}$ as firm-wide demand scale in period t. Note that this term captures the size of the firm in a given year and does not vary across markets.

After characterizing per-period revenues, that depend on the per-period sourcing strategy and its associated costs, we solve the extensive margin decisions by backward induction, beginning with firms' decisions in period $t = 2$ and then turning to period $t = 1$.

4.3 Decisions in Period 2

Conditional on its period-1 decisions, in period $t = 2$ the firm decides, for each market j, whether to export, import, or engage in both activities.

Exporting Decision in Period 2

A firm will export to market j in period 2 if the revenue from exporting exceeds the associated fixed costs of exporting. Formally, a firm exports in period 2 if:

$$\left[\frac{\varphi_{i,2}}{c(\Omega_{i,2})}\right]^{\sigma-1} A_{j,2}\mu_{ij,2} \geq F_j^x - \kappa F_j^x\, \mathbb{I}[m_{ij,2} > 0],$$

The fixed cost of exporting to market j is denoted by F_j^x. The term $\kappa \in [0, 1]$ captures the percentage reduction in fixed export costs due to concurrent complementarities between exporting and importing. $m_{ij,2}$ is the level of imports from j in period 2. Finally, $\mathbb{I}[\cdot]$ is an indicator function that accounts for relevant conditions in the firm's export decision.

[14] Appendix Table A14 provides a variance decomposition of the extensive margin of exporting into firm–year, firm–market, and market–sector–year components, along with the residual shocks to firm-market profitability $\mu_{ij,t}$.

Importing Decision in Period 2

A firm imports from market j in period 2 if the resulting increase in total revenues—driven by the reduction in marginal costs $c(\Omega_{i,t})$ from access to the foreign variety in j—exceeds the additional fixed costs required to source from that market.

Formally, a firm will import from j in period 2 if:

$$\left\{\left[\frac{1}{c(\Omega_{i,2} \cup M_j)}\right]^{\sigma-1} - \left[\frac{1}{c(\Omega_{i,2})}\right]^{\sigma-1}\right\} \varphi_{i,2}^{\sigma-1} \sum_{k \in \Omega_{i,2}^X} A_{k,2}\mu_{ik,2} \geq F_j^m - \kappa F_j^m \, \mathbb{I}[r_{ij,2} > 0] - F_j^m g(\cdot) \, \mathbb{I}[r_{ij,1} > 0], \tag{2}$$

where $c(\Omega_{i,2} \cup M_j)$ denotes the optimal firm-level sourcing strategy that includes imports from the new source j and $c(\Omega_{i,2})$ is the optimal sourcing strategy without j. F_j^m denotes the fixed costs of importing if the firm has no export experience. κ denotes the percentage reduction in fixed costs from concurrent importing and exporting activities, while $g(.)$ denotes the fixed cost savings due to experience in the market acquired by exporting in the previous period. The argument of $g(.)$ depends on the firm's knowledge about a market and is defined in the next section where it becomes more relevant for the analysis.

A novel feature of the framework is that the presence of $g(\cdot)$ and κ generates firm–market–specific fixed import costs that vary across firms according to their export history in market j. The model clear distinguish these distinct channels. First, there are concurrent cost complementarities between exporting and importing, captured by κ, whereby firms that export and import from the same market face lower joint fixed costs. An example of this type of costs are operational costs that can be used for both activities when undertaken simulatenously. Second, the model allows for a dynamic export-experience effect on fixed import costs, captured by the function $g(\cdot)$. For example, past exporting experience in market j reduces the future fixed cost of sourcing from that market by lowering informational and search frictions, such as learning about potential suppliers in the foreign market.

4.4 Exporting Decision in Period 1

In this period, the firm decides whether to export from market j. As this decision can affect period $t = 2$ profits, the firm internalizes that export entry affects future import costs when making this decision.

Formally, the firm exports in period 1 if

$$\left[\frac{\varphi_{i,1}}{c(\Omega_{i,1})}\right]^{\sigma-1} A_{j,1}\mu_{ij,1} \geq F_j^x - \Big[E\big(\pi_{i,2} \mid r_{ij,1} > 0\big) - E\big(\pi_{i,2} \mid r_{ij,1} = 0\big)\Big],$$

where the bracketed term represents the increase in period 2 expected profits resulting from exporting in period 1.

Although we keep the model deliberately simple, this condition makes clear that firms internalize the interdependence between their export and import decisions across periods. The expected reduction in future import costs enters the current export-entry decision through the term $\big[E(\pi_{i,2}\,|\,r_{ij,1}>0)-E(\pi_{i,2}\,|\,r_{ij,1}=0)\big]$.

4.5 Model Predictions

4.5.1 Import Fixed Cost Savings or Firm-Wide Productivity Shocks

We now characterize the model's predictions for importing behavior following export entry. In particular, we start by contrasting two cases: a case in which importing after exporting is driven mainly by destination-specific reductions in fixed import costs with an alternative in which it reflects firm-wide changes, such as shocks to firm-wide productivity or firm-wide demand scale changes induced by new export activity.

Suppose that the firm-wide productivity, $\varphi_{i,t}$, is constant . Suppose there is a positive shock to a firm's profitability in destination j. A marginal increase in $\mu_{ij,1}$ raises contemporaneous revenues in market j, thereby relaxing the export entry condition and increasing the firm's incentive to export to j in period 1. In addition, by lowering period-2 importing fixed costs from j through $g(.)$, it strengthens the incentive to import from market j in period 2. We formalize this intuition in the following proposition.

PROPOSITION **1 (Import After Exporting as Fixed Cost Savings)** *Holding constant firm-wide productivity, $\varphi_{i,t}$, suppose that $\kappa>0$ and $g(\cdot)>0$. A positive shock to firm-market profitability $\mu_{ij,1}$ increases firm i's incentive to start exporting to market j in period 1 and, through the import fixed cost savings channel, also increases its incentive to source inputs from j in period 2.*

Proof Let total expected profit of firm i be

$$\Pi_i=\pi_{i,1}+E\big(\pi_{i,2}\big).$$

Period-1 export decision: In period 1, the firm exports to market j if

$$\left[\frac{\varphi_{i,1}}{c(\Omega_{i,1})}\right]^{\sigma-1}A_{j,1}\mu_{ij,1}\;\geq\;F^x_j-\Delta, \tag{3}$$

where

$$\Delta\equiv E\big(\pi_{i,2}\mid r_{ij,1}>0\big)-E\big(\pi_{i,2}\mid r_{ij,1}=0\big)$$

captures the expected gain in period-2 profits associated with exporting in period 1, i.e. the expected reduction in future fixed costs of exporting and importing.

It is immediate that the left-hand side of Equation (3) is strictly increasing in $\mu_{ij,1}$. Therefore, a positive shock to $\mu_{ij,1}$ makes the export condition in period 1 strictly easier to satisfy and increases the incentives for the firm to start exporting to j.

Period-2 import decision: In period 2, firm i imports from market j if the gain in variable profits from sourcing from j exceeds the relevant fixed import costs:

$$\left\{\left[\frac{1}{c(\Omega_{i,2}\cup M_j)}\right]^{\sigma-1}-\left[\frac{1}{c(\Omega_{i,2})}\right]^{\sigma-1}\right\}\varphi_{i,2}^{\sigma-1}\sum_{k\in\Omega_{i,2}^X}A_{k,2}\mu_{ik,2}\geq\ F_j^m-\kappa F_j^m\,\mathbb{I}[r_{ij,2}>0]-F_j^m g(\cdot)\,\mathbb{I}[r_{ij,1}>0]. \tag{4}$$

The term in brackets captures the gains from switching from the optimal sourcing strategy that excludes j to the optimal sourcing strategy that includes it. The last term on the right-hand side captures the reduction in fixed import costs due to export experience in period 1: if the firm exported in period 1 ($r_{ij,1}>0$), fixed import costs in period 2 are lower by $F_j^m g(\cdot)>0$. The second term on the right-hand side captures the potential reduction in fixed cost due to concurrent complementarities through κ if the firm also continues exporting in period 2.

Export experience channel, $g(.)$: For a given realization of period-2 fundamentals, the left-hand side of Equation (4) is invariant to the firm's export status in period 1. By contrast, the right-hand side is strictly lower when $\mathbb{I}[r_{ij,1}>0]=1$, since past exporting reduces fixed import costs through the export-experience term $F_j^m g(\cdot)>0$. Therefore, importing from j is more likely.

Concurrent complementarities channel, κ: to generate new imports in the second period through this channel, it requires the additional condition that the firm-market profitability shock $\mu_{ij,1}$ is persistent, so that it carries over to period 2 (i.e., $\mu_{ij,2}$ increases as well). In this case, the firm can continue exporting to market j in period $t=2$, which relaxes the RHS of the importing condition in that period through concurrent fixed-cost complementarities κ, thereby increasing the likelihood of importing from market j.

Hence, if $g(\cdot)>0$ or $\kappa>0$, a positive shock to $\mu_{ij,1}$ increases export incentives in period 1 and, through lower fixed import costs, raises the incentive to import from j in period 2. The export-experience channel ($g(\cdot)>0$) operates regardless of export continuation, whereas the concurrent complementarity channel ($\kappa>0$) requires the export relationship to persist. Proposition 3 exploits this distinction. ■

Alternatively, the observed link between export entry and subsequent importing may reflect firm-wide productivity shocks or expansions in firm-wide demand scale following export entry, rather than reductions in market specific fixed import costs. We consider two such mechanisms, which yield similar empirical predictions and summarize most mechanisms that operate through firm-wide changes in a given year.

One possibility is a firm-wide productivity shock $\varphi_{i,t}$, simultaneously raising the profitability of exporting and importing across all markets. A similar possibility is a firm-wide demand scale effect. A shock to firm–market profitability, $\mu_{ij,1}$, can induce export entry in period $t = 1$. If the shock is persistent and also increases $\mu_{ij,2}$, then it can also influence export activity in period $t = 2$. In that case, the resulting expansion in firm-wide export scale in period $t = 2$ also increases the likelihood of importing from any source in the subsequent period, but not specifically from j.

Importantly, unlike the import-cost-saving mechanisms discussed in Proposition 1, these mechanisms that operate through firm-wide effects do not imply that new imports should originate from the same destination to which the firm has begun exporting in the previous year. We formalize this in the following proposition.

PROPOSITION **2 (Firm-wide Productivity and Firm-Wide Demand Scale Effects)** *Suppose $\kappa = 0$ and $g(.) = 0$ and provided $\sigma > 1$. Suppose that there is either*

1. *a firm-wide core productivity $\varphi_{i,t}$ shock, or*

2. *a positive firm–market profitability shock $\mu_{ij,1}$ that is persistent and also induces an increase in firm-wide exports in $t = 2$.*

Then, conditional on export entry into market j in $t = 1$, the incentives for the firm to begin importing from any new origin m in $t = 2$ increase, independently of whether $m = j$ or $m \neq j$.

Proof

Importing decision in period 2: Provided $\sigma > 1$. Assume $\kappa = g(\cdot) = 0$, and suppose the firm entered export market j in period $t - 1$.

A firm imports from a market m in period 2 if the following condition holds:

$$\left\{ \left[\frac{1}{c(\Omega_{i,2} \cup M_m)} \right]^{\sigma-1} - \left[\frac{1}{c(\Omega_{i,2})} \right]^{\sigma-1} \right\} \varphi_{i,2}^{\sigma-1} \sum_{k \in \Omega_{i,2}^X} A_{k,2} \mu_{ik,2} \geq \; F_m^m. \tag{5}$$

In all cases, the RHS is constant. Consider the LHS of Equation 5, which captures the revenue gain from the reduction in marginal costs induced by access to inputs from a market j.

1. Firm-wide productivity, $\varphi_{i,2}$: Provided $\sigma > 1$, an increase in firm-wide productivity $\varphi_{i,2}$ raises the LHS for any market m, thereby relaxing the import profitability condition for all potential markets. As a result, firm-wide productivity shocks increase the likelihood of importing from any market, not necessarily from the market in which exporting began in the previous period.

2. Firm-wide demand scale, $\sum_{k \in \Omega_{i,2}^X} A_{k,2} \mu_{ik,2}$: Consider a positive firm–market profitability shock that is persistent, affecting both $\mu_{ij,1}$ and $\mu_{ij,2}$. Such a shock can induce export entry

into market j in period 1 and also positive exports in period 2, so that $j \in \Omega^X_{i,2}$. As a result, total firm-wide demand scale in period 2 increases through the term $\sum_{k\in\Omega^X_{i,2}} A_{k,2}\mu_{ik,2}$. This raises the LHS of Equation 5 uniformly across all potential sourcing markets m, increasing the likelihood of import entry from any market m, not necessarily from j.

Importantly, in both cases the increase in the LHS in period 2 is market-invariant and does not generate differential import responses tied to a specific export destination in the previous period.

As a remark, in part (2) of this proposition we focus on persistent shocks to firm–market profitability $\mu_{ij,t}$ that affect both periods because it is the interesting case to contrast against import cost savings. Transitory shocks cannot generate importing after exporting: conditional on period-2 fundamentals, a transitory shock to $\mu_{ij,1}$ may induce export entry in $t = 1$ but does not imply exporting to j in $t = 2$, and thus does not affect firm-wide export scale in $t = 2$. Therefore transitory shocks cannot generate the patterns in the data. ■

Propositions 1 and 2 yield contrasting predictions about the empirical patterns to expect of importing after exporting, depending on whether the underlying mechanism is mainly (a) import-cost savings or (b) firm-wide productivity shock or changes in the firm-wide demand scale following export entry. Notably, Proposition 2 indicates that any mechanism that operates through firm-wide effects in period 2 should induce new imports from any market, and not necessarily from the export market. In contrast, Proposition 1 predicts that, when the mechanism operates mostly through import-cost reductions, importing after exporting is confined to the same market.

In the empirical Section 3, we already addressed firm-wide shocks by including firm-year fixed effects or using firm-level variables that proxy for changes in firm-year productivity. Here we complement the analysis by using the model contrasting predictions to design a test to further disentangle destination-specific import-cost savings from firm-wide effects. We evaluate whether export entry into destination j also predicts import entry from other origins ($m \neq j$). Specifically, we estimate the following equation:

$$NewOrigin_{ijt} = \alpha\, ExportEntry_{i,-j,t-1} + \beta\Delta\log(1 + labor_{i,t}) + \{FE\} + \mu_{ijt}, \tag{6}$$

where $ExportEntry_{i,-j,t-1}$ is an indicator that takes value 1 if the firm started to export to any market $m \neq j$ in the previous year.

Table 4 reports the estimates. We find that entering an export market $m \neq j$ has little to no effect on a firm's probability of importing from j. These coefficients are more than an order of magnitude smaller—about 5% of the main effect—and become statistically insignificant if we control for scale or firm-year fixed effects.

This result helps to rule out explanations related to firm-wide productivity shocks or any change in the scale of the firm as the main driver of importing after exporting, since such changes would raise the likelihood of importing from any market, not only in the export destination. Instead, the evidence is more consistent with Proposition 1, indicating that new sourcing from a new export destination primarily reflects reductions in import costs specific to that market. Interestingly, employment-based proxies for firm-wide changes have a positive effect on the probability of importing from any market as predicted by 2.

Table 4: The effect of export entry in market k on importing from market $-j \neq m$

Dep Variable: $New\ Origin_{ijt}$	(1)	(2)	(3)
$Export\ Entry_{i,-j,t-1}$	0.0000	0.0003*	-0.0013**
	(0.0002)	(0.0002)	(0.0006)
$\log(1 + Labor)_{it}$	0.0042***		
	(0.0003)		
$\Delta \log(1 + Labor)_{it}$		0.0021***	
		(0.0003)	
Observations	4,991,876	4,991,876	4,991,876
R-squared	0.2628	0.2626	0.2989
Firm-Market FE	yes	yes	yes
Market-Year-Sector FE	yes	yes	yes
Firm-Year FE	no	no	yes

Estimates are obtained from a linear probability model. A unit of observation is a firm $\times$ country $\times$ year for the period 2003-2012. The dependent variable, $New\ Origin_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin in year t. $Export\ Entry_{i,-j,t-1}$ is an indicator that takes value 1 when the firm starts exporting to country a m$\neq j$ in year $t-1$. Columns (1) to (4) report results for OLS estimations with alternative sets of controls and fixed effects. Column 1 includes firm-market and market-year fixed effects. Remaining columns also include combinations of firm and year FE. Standard errors clustered at the firm level are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

Finally, this exercise complements the analysis in Section 3, Columns (4)–(7) of Table 2, which also reinforces the interpretation in Proposition 1 based on reductions in import costs. Columns (4)–(6) control for firm-level employment, import, and export growth as proxies for firm-wide changes, effectively comparing firms with similar changes in scale or productivity. As predicted by Proposition 1, we find that export entry into a new destination significantly raises the probability of subsequently importing from that same market. Column (7) further includes firm–year fixed effects, exploiting within-firm-year variation across potential destinations and fully absorbing any firm-wide productivity or demand shocks. Even under this stringent comparison, prior exporting increases the likelihood of importing from the same market in the following year.

4.5.2 Import Cost Savings: Concurrent Complementarities or Dynamic Trade Experience?

Once we have established that importing after exporting is more consistent with a reduction in import costs rather than firm-wide productivity shocks, we explore the nature of the reduction in fixed costs. The model distinguish two channels. First, via concurrent cost complementarities ($\kappa > 0$), export entry reduces the fixed costs for both exporting and importing, thereby relaxing entry conditions. Second, through dynamic trading experience effects ($g(\cdot) > 0$), exporting in period 1 allows the firm to acquire market specific knowledge, which subsequently lowers the fixed costs of importing from that market in period 2.

This distinction is crucial for understanding whether the strategic value of export entry lies in its ability to generate immediate cost complementarities or in providing valuable market-specific experience that facilitates future sourcing decisions.[15]

The dynamic model provides a first way to distinguish between the two mechanisms, which we complement with further evidence in the next section. The concurrent cost–complementarity channel requires exporting and importing to occur simultaneously, whereas the export experience channel does not. Consequently, concurrent complementarities imply that to increase the probability of start importing the firm must survive in the export market in the year after export entry. In contrast, the experience channel does not require such export survival.

Building on this intuition, the following proposition introduces a test that helps identify which mechanism is more consistent with the patterns in the data.

PROPOSITION **3 (Concurrent Complementarity or Dynamic Export Experience)** *If a firm starts importing from market j in period 2 after exporting to j in period 1, but does not export to j in period 2, then this behavior cannot be rationalized by concurrent cost complementarities (i.e., $\kappa > 0$). Instead, it must be driven by the dynamic export-experience channel, whereby the firm accumulates experience through past exporting which reduces current import fixed costs ($g(.) > 0$).*

Proof Consider firm i's importing decision in period 2. Let $(\Omega_{i,2} \cup M_j)$ denote a sourcing strategy that includes importing from j and $c(\Omega_{i,2})$ the strategy that does not.

[15] Note that several explanations based on concurrent operational cost complementarities are already unlikely. Most operational cost complementarities are not destination-specific, and standard cost-complementarity mechanisms typically imply a contemporaneous link between importing and exporting, not a sequential one. We therefore focus on specific conditions under which such a channel could operate and generate market-specific sequential importing after exporting and assess whether they are supported by the data.

Firm i will choose to import from j in period 2 whenever

$$\left[\frac{\varphi_{i,2}}{c(\Omega_{i,2} \cup M_j)}\right]^{\sigma-1} \sum_{k\in\Omega^X_{i,2}} A_{k,2}\mu_{ik,2} - \left[\frac{\varphi_{i,2}}{c(\Omega_{i,2})}\right]^{\sigma-1} \sum_{k\in\Omega^X_{i,2}} A_{k,2}\mu_{ik,2} \geq F^m_j - \kappa F^m_j \,\mathbb{I}[r_{ij,2} > 0] - F^m_j g(\cdot)\,\mathbb{I}[r_{ij,1} > 0].$$

As long as the firm export in period $t = 1$ and $t = 2$ the RHS will decline through the two cost savings channels. Now suppose that in period 2 firm i ceases to export to market j, so that $r_{ij,2} = 0$. Then the term involving κ in $t = 2$, which captures cost reductions due to *simultaneous* exporting and importing, drops out and the condition becomes

$$\left[\frac{\varphi_{i,2}}{c(\Omega_{i,2} \cup M_j)}\right]^{\sigma-1} \sum_{k\in\Omega^X_{i,2}} A_{ik}\mu_{ik,2} - \left[\frac{\varphi_{i,2}}{c(\Omega_{i,2})}\right]^{\sigma-1} \sum_{k\in\Omega^X_{i,2}} A_{k,2}\mu_{ik,2} \geq F^m_j - F^m_j g(\cdot)\,\mathbb{I}[r_{ij,1} > 0].$$

It is immediate to see that for firms that do not survive in the export market there is no role for concurrent cost savings through κ in the RHS. In contrast, since the firm exported in period 1 ($r_{ij,1} > 0$), the fixed cost is still reduced by the export-experience term $F^m_j g(\cdot)$. Therefore, in the absence of simultaneous exporting in period 2 (i.e., when $r_{ij,2} = 0$), any observed reduction in import fixed costs must therefore stem from the dynamic export experience channel $g(\cdot)$, not from the complementarity parameter κ. ■

The proposition delivers a sharp empirical test to discriminate between the two mechanisms. If firms begin importing in period 2 despite having exited export markets by then, the simultaneous cost complementarity channel cannot account for the observed cost reductions.

We implement this test by examining whether the effect of export entry on subsequent import entry depends on firms' continued presence in export markets.[16] Specifically, we estimate:

$$\begin{aligned} NewOrigin_{ijt} \quad = \quad & \alpha_1 Export\ Entry_{ij,t-1} + \alpha_2 Exporter_{ijt} + \alpha_3\big(Export\ Entry_{ij,t-1} \times Exporter_{ijt}\big) \\ & + \{FE\} + \mu_{ijt}, \end{aligned}$$

where $Exporter_{ijt}$ equals 1 if firm i exports a positive amount to destination j in year t (and 0 otherwise), and $ExportEntry_{ij,t-1}$ equals 1 if the firm entered the export market j in $t-1$. The parameters of interest are α_1 and α_3. Under concurrent cost complementarities, we would expect $\alpha_1 = 0$: import cost savings arise only when the firm is *currently* exporting, so entry without survival should have no effect. In contrast, observing $\alpha_1 > 0$ cannot be explained by concurrent cost complementarities and instead supports a trading-experience mechanism, in which information acquired at export entry lowers sourcing costs even if the firm later stops exporting to that market.

[16] Identification exploits the substantial share of firms that exit exporting shortly after entry (see Table A1 in the Appendix).

The coefficient α_3 captures any additional premium for firms that *do* survive as exporters.

Results are presented in Table 5 and support the trading-experience mechanism. Across specifications, we estimate a positive α_1 in the range 0.006–0.008, indicating that firms that entered exporting to market j in $t-1$ are more likely to begin sourcing from j in t, even if they do not continue exporting in t. Because concurrent cost complementarities imply $\alpha_1 = 0$, finding $\alpha_1 > 0$ pattern is inconsistent with that mechanism and instead points to firms acquiring experience. In our preferred specification, α_3 is small and not always statistically significant at conventional levels, implying small or no additional premium for firms that survive in the export market. We interpret this as evidence in favor of the trading-experience mechanism.

Table 5: Does the persistence of the export relationship matter?

Dep variable: $NewOrigin_{ijt}$	(1)	(2)
$ExportEntry_{ijt-1}$	0.0075***	0.0059***
	(0.0009)	(0.0009)
$Export\ Entry_{ijt-1} * Exporter_{ijt}$	0.0028**	0.0016
	(0.0014)	(0.0014)
$\Delta log(1 + Labor)_{it}$	0.0019***	
	(0.0003)	
Observations	4,936,092	4,936,092
R-squared	0.2640	0.3009
Firm-Market FE	yes	yes
Market-Sector-Year FE	yes	yes
Firm-Year FE	no	yes

Estimates are obtained from a linear probability model. A unit of observation is a firm $\times$ country $\times$ year for the period 2003-2012. The dependent variable, $New\ Origin_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin in year t. $Export\ Entry_{ijt}$ is an indicator that takes value 1 when the firm starts exporting to country j in year t. $Exporter_{ijt}$ is an indicator that takes value 1 if the firm exports to market j in year t. Standard errors clustered at the firm level are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

In the next section, we investigate further the role of the import cost savings channel due to acquiring experience in the export market.

5 The Export Experience Channel: Empirical Implications

Previous results have ruled out cost concurrent complementarities and point to the dynamic export experience channel $g(\cdot)$ as the main mechanism through which exporting affects import costs. An increase in $\mu_{ij,1}$ raises the probability of export entry in period 1, and through $g(\cdot)$, exporting facilitates learning about market j which reduces the fixed costs of importing in period 2.

In this section, we extend the model to further evaluate the export-experience hypothesis. A key distinction is that concurrent cost complementarities should be independent of a firm's prior knowledge of a market, whereas experience-based mechanisms imply effects that vary systematically with prior product and market knowledge. Consequently, we expect stronger effects in previously unexplored destinations and for less familiar products. In particular, the impact of entry should differ between first time entry and re-entry, across destinations that are less commonly served by Argentine firms, and for infrequently traded or more differentiated varieties. Finally, if exporting improves information about suppliers, importing relationships initiated after exporting should exhibit higher survival rates.

To formalize these insights, we conjecture that the cost-saving function $g(\cdot)$ depends on the firm's prior knowledge of market j, denoted K_{ij}, with $g'(K_{ij}) > 0$ and $g''(K_{ij}) < 0$. We further assume that export entry into j increases K_{ij}. This formulation implies that export entry reduces future import costs, with larger effects in markets that are initially less familiar (i.e., with lower initial K_{ij}). The following proposition characterizes the implications of this mechanism.

PROPOSITION 4 *If $g'(K_{ij}) > 0$ and $g''(K_{ij}) < 0$, export entry that reduces the cost of acquiring information implies:*

1. *Market previous knowledge* ***does*** *matter for import decisions: a stronger effect in less explored markets.*

2. *Product specificity* ***does*** *matter for import decisions: a stronger effect when imports involve non-homogeneous goods or higher technological content.*

Proof The result follows directly from inspection of the functional form of $g(K_{ij})$, which satisfies $g'(K_{ij}) > 0$ and $g''(K_{ij}) < 0$. A formal proof is provided in Appendix B.4. ■

Proposition 4 delivers new predictions for the export-experience mechanism: (i) the effect of export entry on later importing is stronger when prior market knowledge is low; and (ii) the effect is stronger for inputs that are relatively unknown or more specific. In what follows, these predicitons guide the empirical analysis to design a set of tests. The remainder of this section implements these tests using different empirical measures of initial K_{ij}.

Testing Proposition 4 provides further evidence that entering a new export market generates knowledge about sourcing opportunities, leading to lower import costs. Although our model abstracts from the specific mechanisms behind this process, the short time frame of the observed effect—imports rising mainly within one year after export entry—is consistent with several realistic channels. Exporting immediately exposes firms to the new market's business environment through interactions with clients, logistics providers, and local intermediaries, participation in trade fairs, or contact with distribution and certification networks. These early experiences can quickly reveal reliable input suppliers and provide actionable information about product availability, cost, or quality. Consequently, firms may begin sourcing soon after export entry and may continue even after they stop exporting to that market. Although this argument is informal, it is consistent with export experience reducing market-specific import costs ($g(\cdot) > 0$), as captured by Proposition 4, rather than with cost complementarities that operate only when export and import activities occur simultaneously.

5.1 Market previous knowledge

We begin by testing Part (i) of Proposition 4, which states that the effect of export entry on subsequent importing should be stronger in markets where firms have less prior knowledge (lower initial K_{ij}). The underlying idea is that when initial knowledge is limited, there is more information to gain—such as learning about potential input suppliers–which in turn increases the likelihood of subsequent import entry. We design different exercises—using re-entry, geographic and cultural distance, and sector-level information about varieties—to explore the empirical relevance of this channel and to provide direct evidence on how initial level of K_{ij} shapes importing after exporting.

Knowledge about a destination may be accumulated through past export activity. If such knowledge persists, re-entering an export market after a temporary exit should generate smaller informational gains and therefore a weaker increase in the probability of subsequent import sourcing. We test this implication using firms that re-enter export markets—those that did not export to a given destination at $t-2$, had exported there earlier, and resume exporting at $t-1$.[17] Proposition 4 predicts that export re-entry has a smaller effect on import sourcing than first-time export entry, reflecting the lower scope for learning in destinations with prior experience.

To test this hypothesis, we augment the baseline specification by interacting Export Entry with $\textit{Re-entrant}_{ij,t-1}$, an indicator equal to one if the firm enters market j as an exporter in period t but had previously exported to that market prior to $t-1$. Table 6 reports the results. Consistent with export experience as the main mechanism, the effect of export entry on the probability of initiating imports is smaller for re-entrants, as indicated by the negative coefficient on the interaction term. When firm–year fixed effects are included in column (2), the sum of the export-entry and interaction

[17] As shown in Table A1 of the Appendix, about 25% of firms entering a destination are re-entrants.

coefficients is not statistically different from zero, implying that export re-entry has essentially no effect on subsequent import initiation.[18]

Table 6: Exporting does not affect importing for re-entrants

	$Pr[NewOrigin_{ijt} = 1]$
	(1)
$Export\ Entry_{ijt-1}$	0.0087***
	(0.0008)
$Export\ Entry_{ijt-1} \times Re - entrant_{ijt-1}$	-0.0089***
	(0.0019)
P-value: $\beta_1 + \beta_2 = 0$	0.89
Observations	4,378,295
R-squared	0.3128
Firm-Market FE	yes
Market-Sector-Year FE	yes
Firm-Year FE	yes

Estimates are from a lineal probability model. A unit of observation is a firm $\times$ country $\times$ year for the period 2003-2012. The dependent variable, $New\ Origin_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin j in year t. The mean of this variable is 0.011. $Re - entrant_{ijt-1}$ is an indicator that takes value 1 when the firm starts exporting again to a country j in $t-1$. Standard errors clustered at the firm level are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

Arguably, the fact that re-entry does not affect sourcing rules out the possibility of 'importing after exporting" being explained by complementarity in import-export costs. If our results reflected cost complementarity, the reduction in import costs should be associated with all types of export activities, not only with first time entry. Instead, the pattern is exactly what Proposition 4 predicts when experience is more valuable in less-explored markets.

[18]Notice that, even if self-selection into re-entry may bias our estimates, the fact remains that re-entry in an export market is likely a more informed decision than a first-entry (Albornoz, Calvo Pardo, Corcos, and Ornelas 2012, Albornoz, Fanelli, and Hallak 2016), which provides further evidence in favor of the experience-based channel highlighted in Proposition 4.

Next, we exploit cross-market variation in prior knowledge K_{ij}, which implies that the scope for learning from export entry differs across destinations. We proceed in two complementary ways. First, we exploit continuous variation in distance by estimating country-level regressions that interact export entry with bilateral distance with respect to Argentina (centered at the average distance). Columns (1) and (2) show that this interaction term is positive and statistically significant, indicating that the impact of export entry on import sourcing increases with distance. Since distance might reflect initial market knowledge, the exercise provides support for the export experience channel in Proposition 4.

Second, we estimate the baseline specification separately for groups of countries, including firm and year fixed effects and controlling for productivity proxies. Table 7 reveals substantial heterogeneity across regions: the effect of export entry on subsequent importing is strongest for distant and less familiar markets—such as North America, the EU, and ASEAN (columns 3–8)—and markedly weaker for nearby destinations, including Mercosur and the rest of the Americas.

Table 7: Importing after Exporting and Geographical Variation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	All	All	ASEAN+3	EU	NA	Mercosur	RAme
$Export\ Entry_{ijt-1}$	0.0134***	0.0106***	0.0187***	0.0233***	0.0224***	0.0030**	0.0037***
	(0.0011)	(0.0010)	(0.0039)	(0.0030)	(0.0053)	(0.0015)	(0.0009)
$Export\ Entry_{ijt-1}$	0.0033***	0.0031***					
$\times\ (log(Dist) - p50(log(Dist))_j$	(0.0005)	(0.0005)					
Observations	4,936,103	4,936,092	893,487	1,133,112	164,264	234,704	665,628
R-squared	0.2640	0.3009	0.0734	0.0630	0.1706	0.1179	0.0463
Firm FE	yes	-	yes	yes	yes	yes	yes
Firm-Market FE	yes	yes	yes	yes	yes	yes	yes
Market-Sector-Year FE	yes	yes	yes	yes	yes	yes	yes
Firm-year FE	no	yes	no	no	no	no	no
Employment control	yes	-	yes	yes	yes	yes	yes

Estimates are obtained from a linear probability model. A unit of observation is a firm × country × year for the period 2003-2012. The dependent variable, $New\ Origin_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin j in year t. $Export\ Entry_{ijt-1}$ is an indicator that takes value 1 when the firm starts exporting to a new destination j in $t-1$. Dist is distance in miles between Argentina and country j. Column (1) and (2) present results for the whole sample. Columns (3) to (7) report results for different regions. Standard errors clustered at the firm level are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

In the spirit of Proposition 4, this finding reflects that trading experience matters more to source from markets where Argentinian firms lack relevant information about potential suppliers.[19]

In order to test this explanation further, we create a measure that proxies knowledge about potential suppliers in a market at the firm level before export entry to a destination. For this exercise, we expand the data at the firm-country-product-year level. For each input variety (a combination of product k at the HS 6-digit level and origin j), we define whether it is 'known" or unknown" according to the following rule:

$$Unknown\ Variety_{vjk} = \begin{cases} 1, & \text{if } N_{vjk,0} < Median_v\left[N_{vjk}\right] \\ 0, & \text{if otherwise} \end{cases}$$

We can use $Unknown\ Variety_{vjk}$ to generate two types of imported inputs:

$$u = \{known, unknown\}$$

Thus, for each firm, we can distinguish imported inputs according to $Unknown\ input_{iju}$, which takes the value of 1 for imports of unknown varieties and 0 otherwise. This variable allows us to explore whether the probability of a new sourcing following an export entry in the same market depends on the type of input. The assumption is that knowledge available about a particular variety increases with the number of firms belonging to the same sector importing that variety. We then estimate

$$NewOrigin_{ijut} = \beta_1 ExportEntry_{ij,t-1} + \beta_2 ExportEntry_{ij,t-1} * Unknown_{iju} + \{FE\} + \epsilon_{iujt},$$

where the vector of fixed effects includes our baseline FE combined with the type of input u.

The estimated coefficients are reported in Table 8. The results are eloquent. Column 1 and Column 2 show that the effect of export entry on the likelihood of importing from the same market crucially depends on whether the firm has previous knowledge about the market. In particular, consistent with the experience channel, export entry has a stronger effect on import entry when the newly imported variety is relatively unknown in the sector where the firm operates.

[19] In general, Argentine firms have more experience with some markets than others. For example, even if a firm never exported to Mercosur, we expect that it has good enough information about inputs available there. In contrast, a firm that had never established trade with the European Union or ASEAN+3 might have less information about those markets, and thus more to learn.

Table 8: Importing after exporting: Unknown varieties

Dep variable: $NewOrigin_{ijt}$	(1)	(2)
‘ $Export\ Entry_{ijt-1}$	0.0011***	0.0018***
	(0.0004)	(0.0004)
$Export\ Entry_{ijt-1} \times Unknown$	0.0077***	0.0077***
	(0.0007)	(0.0007)
$\Delta log(Labor)_{it}$	0.0014***	
	(0.0002)	
Observations	10,182,295	10,182,295
R-squared	0.2438	0.2579
Mean dep variable	0.00559	0.00559
Firm-Market FE	yes	yes
Market-Sector-Unknown-Year FE	yes	yes
Firm-Year FE	no	yes
N Clusters	10742	10742

Estimates are obtained from a linear probability model. A unit of observation is a firm $\times$ country $\times$ pruducttype $\times$ year for the period 2003-2012. Product type can be known or unknown depending on the information about the product in Argentina. The dependent variable, $New\ Origin_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin j in year t. $Export\ Entry_{ijt-1}$ is an indicator that takes value 1 when the firm starts exporting to a new destination j in $t-1$. Unknown is an indicator that takes values 0 or 1 for unknown and known varieties, respectively. Standard errors clustered at the firm level are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

Finally, because Argentine firms are less likely to possess information about markets that are culturally different from Argentina, the effect should be more pronounced in countries that are more distant in terms of language, religion, and broader societal norms. Table 9 presents the results on whether the effect of export entry on subsequent import behavior intensifies when the foreign market is more culturally distant from Argentina. Because culture is inherently difficult to quantify, we report results using five alternative proxies. First is the Facebook (FB) cultural distance, based on revealed preferences and behaviors across nearly 60,000 interest dimensions derived from over two billion Facebook users (Obradovich, Özak, Martín, Ortuño-Ortín, Awad, Cebrián, Cuevas, Desmet, Rahwan, and Cuevas (2022)). Second, using measures from Pellegrino, Spolaore, and Wacziarg (2025), we include religious distance, defined as the expected normalized tree distance in the ancestry of religions between random individuals from the two countries. Third, we use

Table 9: The Effect of Export Entry on Importing: Cultural Difference

	$Pr(NewOrigin_{ijt} = 1)$					
	(1)	(2)	(3)	(4)	(5)	(6)
$ExportEntry_{ijt-1}$	0.000113	0.00298**	0.00166	0.00280**	0.00326***	0.00282***
	(0.00182)	(0.00151)	(0.00116)	(0.00111)	(0.00114)	(0.000689)
$ExportEntry_{ijt-1}$ × Cultural Dist.	0.0610***					
	(0.0158)					
$ExportEntry_{ijt-1}$ × Religious Dist.		0.0124***				
		(0.00412)				
$ExportEntry_{ijt-1}$ × Linguistic Dist. (Tree)			0.0133***			
			(0.00269)			
$ExportEntry_{ijt-1}$ × Linguistic Dist. (CogNet)				0.0118***		
				(0.00277)		
$ExportEntry_{ijt-1}$ × Linguistic Dist. (GLED)					0.0108***	
					(0.00282)	
$ExportEntry_{ijt-1}$ × Different Language						0.0121***
						(0.00162)
Observations	4738571	4738571	4738571	4738571	4738571	4738571
Firm-Market FE	yes	yes	yes	yes	yes	yes
Firm-Year FE	yes	yes	yes	yes	yes	yes
Market-Year-Sector FE	yes	yes	yes	yes	yes	yes

Notes: This table reports LPM estimates of the effect of export entry on the probability of sourcing from a new import origin in year t. Each column interacts $ExportEntry_{ijt-1}$ with a different proxy for cultural distance between Argentina and the partner country. Column (1) uses the Facebook (FB) Cultural Distance index from Obradovich, Özak, Martín, Ortuño-Ortín, Awad, Cebrián, Cuevas, Desmet, Rahwan, and Cuevas (2022). Column (2) uses the Religious Distance measure from Pellegrino, Spolaore, and Wacziarg (2025). Column (3) to (5) use religion and linguistic distance measures from Pellegrino, Spolaore, and Wacziarg (2025). Column (6) includes a binary indicator for whether the two countries have different official languages. All specifications include firm–market, firm–year, and market–year-sector fixed effects. Standard errors (in parentheses) are clustered at the firm level. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

different measures of linguistic distance from Pellegrino, Spolaore, and Wacziarg (2025): tree-based linguistic distance (Tree) and two lexical measures of language distance, CogNet and GLED, based on shared cognates across languages. Finally, we include a binary *DifferentLanguage* indicator, equal to 1 if the two countries have different official languages.

The coefficient estimates show a consistent pattern: all interaction terms with cultural distance are positive and statistically significant, indicating that the 'importing after export" effect is stronger when trading partners are more culturally distant.

5.2 Product specificity

We now turn to Part (ii) of Proposition 4, which predicts that the effect of export entry on later importing should be stronger for products with higher specificity u. In this subsection, we extend the dataset to consider the imported input at the HS6 level and exploit the fact that certain types of inputs may be more likely to require previous knowledge. For example, homogeneous goods do not require a specific supplier and are sold in relatively competitive markets, where information is more likely to be conveyed by the price. By contrast, non-homogeneous goods are differentiated across different attributes, such as quality, and typically require more information about the specific supplier. Similarly, low-technology inputs are easier to acquire than high-tech goods, for which knowledge about suppliers may be more valuable.

Formally, we consider two ways to distinguish between different inputs: product differentiation and technology differentiation. For product differentiation, we use the classification proposed by Rauch (1999). To distinguish products according to their technological content, we use the OECD classification. Thus, we generate two types to classify imported inputs:

$$u = \{\text{Differentiated, Non-Differentiated}\}$$

or alternatively,

$$u = \{\text{High-tech, low-tech}\}$$

We then run our baseline regression distinguishing between the differential effect of export entry on new imports, depending on whether the newly imported product is differentiated ($Diff_u$=1), or not ($Diff_u$=0) for both definitions of u:

$$New\ Origin_{ijut} = \beta_1 Export\ Entry_{ij,t-1} + \beta_2 Export\ Entry_{ij,t-1} * Diff_u + \{FE\} + \epsilon_{iujt},$$

where the vector of fixed effects includes those of our baseline regression, interacted with the input type u. In this case, we are interested in estimating β_2, which captures the effect of interacting $ExportEntry$ with the type of imported input and corresponds directly to the product-specific prediction in Proposition 4.

Results are reported in Table 10. We can observe that the effect of export entry on the probability of start importing is remarkably higher when the newly imported input is differentiated (columns 1 and 2). We obtain similar conclusions if we focus on technology differentiation of the newly imported input (columns 3 and 4). These findings provide direct empirical support for Proposition 4, Part (ii): export experience in a market is more valuable precisely when sourcing requires more product-specific information.

Table 10: Product specificity: stronger effect for differentiated and med-high tech inputs

$NewOrigin_{ijut}$	(1)	(2)	(3)	(4)
	Product Differentiation (Rauch)		Technology Differentiation (OECD)	
$Export\ Entry_{ijt-1}$	0.00208***	0.00060*	0.00310***	0.00168***
	(0.00034)	(0.00035)	(0.00036)	(0.00037)
$Export\ Entry_{ijt-1} \times Dif$	0.00660***	0.00660***	0.00501***	0.00501***
	(0.00072)	(0.00072)	(0.00070)	(0.00070)
$\Delta log(1 + Labor)_{it}$	0.00104***		0.00102***	
	(0.00017)		(0.00017)	
Observations	9,872,206	9,872,206	9,872,206	9,872,206
R-squared	0.25588	0.27549	0.25751	0.27695
Firm-Market-Diff FE	yes	yes	yes	yes
Market-Year-Sector-Diff FE	yes	yes	yes	yes
Firm-Year FE	no	yes	no	yes
Mean dep variable	0.00397	0.00397	0.00393	0.00393

Estimates are from a lineal probability model. A unit of observation is a firm × country × pruductdifferenciated × year for the period 2003-2012. Product type can be differentiated or non-differentiated according to Rauch or OECD technology classification. The dependent variable, $New\ Origin_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin j in year t. $Export\ Entry_{ijt-1}$ is an indicator that takes value 1 when the firm starts exporting to a new destination j in $t-1$. Dif is an indicator that takes values 0 or 1 for non-differentiated and differentiated variaties, respectively. Column (1) and (2) report results classifying products in differentiated and not according to Rauch classification. Column (3) and (4) report results classifying products according to technological content (OECD classification). Standard errors clustered at the firm level are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

5.3 Persistence of Import Relationships after Exporting

The export-experience mechanism embedded in $g(\cdot)$ has an additional implication. If firms learn about reliable suppliers when they enter a new export market, the resulting import relationships should be more durable. For example, the experience gained as an exporter could allow the firm to resolve a part of the uncertainty about suppliers in the foreign market. As sourcing decisions are made with more accurate information, we expect import relationships generated after export entry to last longer. This would be reflected in higher survival rates.[20] To test this implication, we compare the likelihood of being active in the import market for firms that start importing after

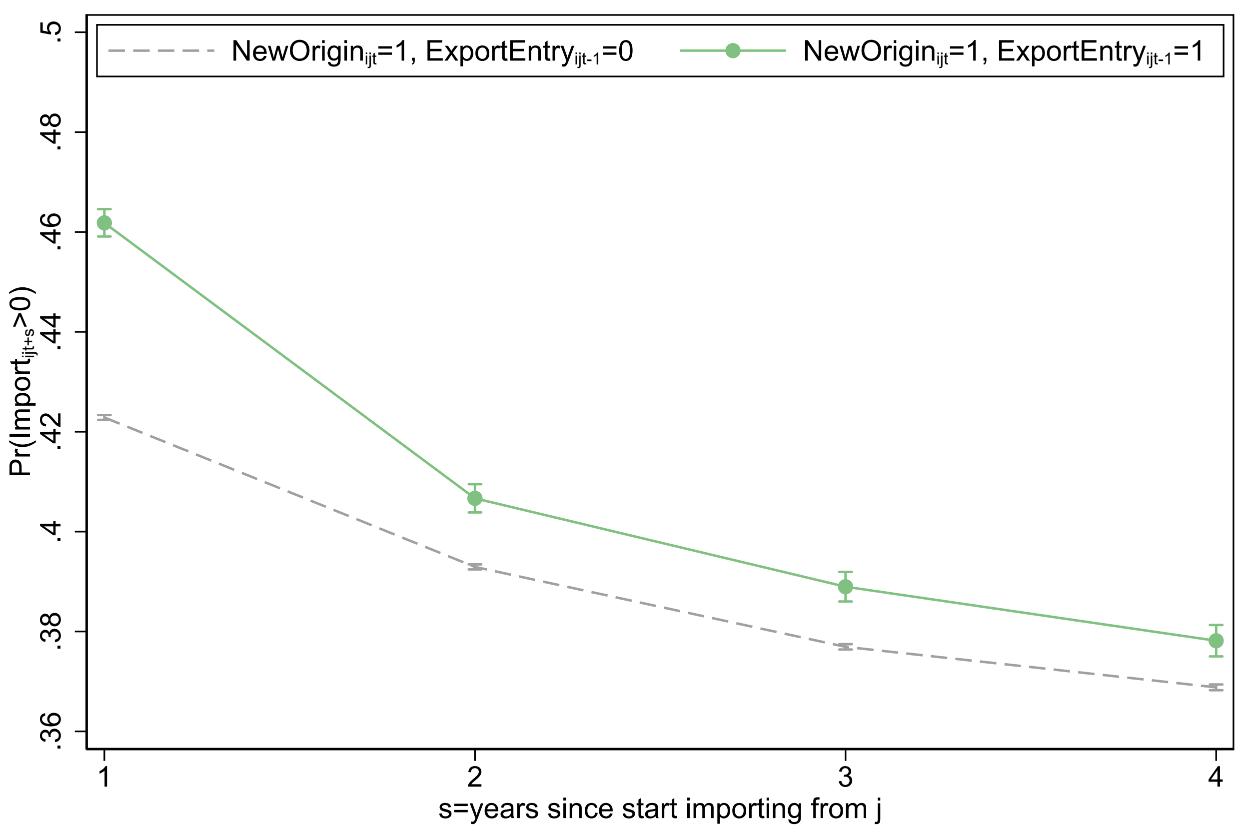
[20]For example, Besedeš (2008) shows that duration of relationships increases for more reliable suppliers.

export entry, relative to firms that start importing with no previous export experience. Formally,

$$ImportStatus_{ij,t+s} = \beta_0 + \beta_1 NewOrigin_{ij,t} + \beta_2 NewOrigin_{ij,t} * ExportEntry_{ij,t-1} + \delta_{kjt} + \delta_{it} + \epsilon_{ijt}.$$

For each $s = 1, 2, 3, 4$, where s denotes years since start exporting to market j. We report β_1 and $(\beta_1 + \beta_2)$ from sequential regressions in Figure 2. One year after initiating imports from a market, firms that started importing after export entry are 4 p.p. more likely to remain active there. This advantage narrows to 2 p.p. in the second year and then remains stable, consistent with surviving non-exporters gradually gaining experience because of importing from the market. These patterns indicate that importing after exporting fosters more durable and stable trading relationships, as expected under an experience-based mechanism.

Figure 2: Importers after exporting are more likely to remain active in the import market



Note: Estimates are obtained from a linear probability model. The Figure plots the probability of surviving profile in import market j for firms that start sourcing from that market after export entry to the market (red line) and for firms that start sourcing from the market without previous exporting experience in the market (dashed black line). We restrict the sample to firms that start sourcing from j in year t. Regressions include firm-year, firm-market, and market-year fixed effects. Source: Official administrative custom data from Argentina.

6 Further discussion on alternative explanations and sensitivity analysis

To conclude our comprehensive assessment of alternative explanations, we examine the possibility of product customization for the export market, as well as partial-year effects. While both are natural potential confounds, they cannot reproduce the empirical patterns. We also conduct sensitivity checks by estimating our interaction specifications using non-linear probability models.

6.1 Customization to the export market?

Even within a framework emphasizing the role of experience, firms may start importing new inputs after export entry for different reasons that have distinct policy implications. We distinguish two broad channels. The first is *customization to the export market*, where inputs are imported specifically to tailor products to the destination's preferences or regulations. This customization is only relevant to sell products in that destination market, so it sustains new imports only if the firm continues exporting there. The second is an *export-experience channel*, whereby entry into a foreign market exposes the firm to information about better suppliers whose inputs enhance its efficiency and can be used to produce for all markets.

Although both channels are interesting and involve learning, their implications differ sharply. The advantages of importing for customization to the export market are specific to that destination, so this channel requires continued export presence to sustain the associated imports. In contrast, the export-experience channel generates persistent changes in sourcing even after exports to the destination market stop. Our findings show that firms continue importing from a destination even after exiting it as exporters, suggesting that newly imported inputs are used more broadly across markets rather than solely for customization. Therefore, we conclude that importing after exporting reflects an informational channel with broader implications for firms, rather than a market-specific product customization channel.[21]

6.2 Robustness: Interactions in the Non-Linear Probability Model

In this section, we assess the robustness of our interaction effects when moving from a linear probability model to a nonlinear framework. Specifically, we estimate Poisson pseudo–maximum likelihood (PPML) models that parallel the specifications used in the previous section. Because coefficients on interaction terms in nonlinear models do not directly correspond to marginal effects

[21] In some cases, what begins as customization can evolve into broader experience-based sourcing. A firm may initially adopt a new input to meet a foreign market's requirement but realize that the input has broader applicability or efficiency gains, leading it to adopt the input permanently and across markets. As the firm is discovering more efficient suppliers, this is part of our definition of the export-experience mechanism and a potential explanation of our fact.

(Ai and Norton 2003), we report results using predicted probabilities, following Martin, Mayer, and Thoenig (2008).

For each variable of interest–such as geographic distance, knowledge of a variety, re-entrant status, or persistence of the export relationship–we estimate a PPML model that mirrors the preferred column of the corresponding LPM regression in the previous section, augmenting it with an interaction term:

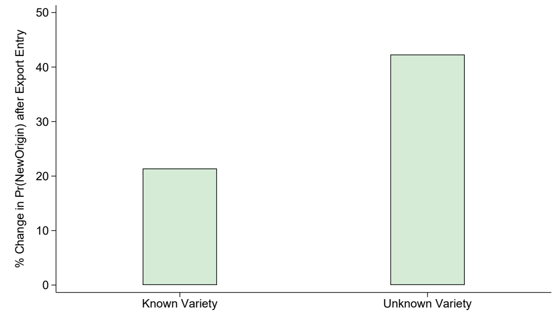
$$Pr(NewOrigin_{ijt}) = \Phi\Big(\beta_0 + \beta_1 ExportEntry_{ij,t-1} + \beta_2\big(ExportEntry_{ij,t-1} \times X\big) + \{FE\} + u_{ijt}\Big).$$

Using the estimated coefficients, we compute probabilities of initiating imports from country j following export entry. For each firm–country–year observation and variable interacted variable X, we hold all other covariates and fixed effects at their observed values and vary X to quantify how the probability of import entry changes. For example, we compare predicted probabilities for firms exporting to nearby versus distant destinations. We then average these predicted probabilities within bins of X, yielding a transparent and interpretable measure of how the "importing-after-exporting" effect varies across firm, product, and market characteristics.

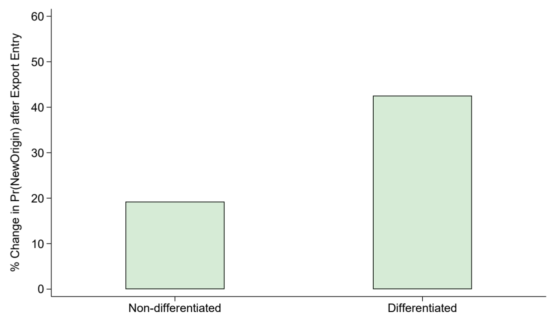
Figure 3 reports the percentage change in the probability of import entry relative to baseline characteristics, while Appendix Table A4 presents the estimates of the PPML regression. The pattern closely resembles the results from the LPM model and reinforces the interpretation of an experience-based mechanism rather than a reduction in operational costs. Export entry has a substantially larger effect for more distant destinations, previously unknown varieties, differentiated goods, and countries that are culturally more distant from Argentina. By contrast, as expected, the importing-after-exporting effect is weaker for re-entrants, and the continued survival of the export relationship is not a prerequisite for subsequent import entry.

Figure 3: Interaction Effects: Distance, Unknown, Persistence, and Differentiation

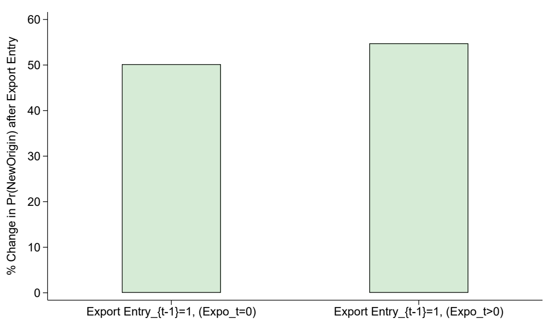
(a) Distance



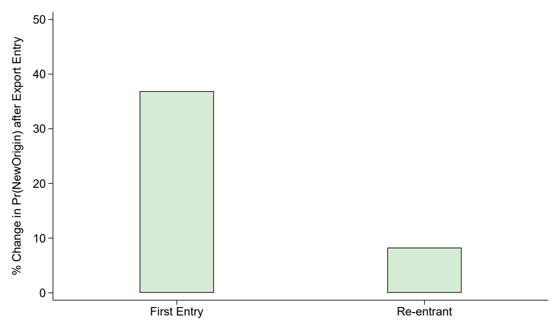
(b) Unknown Variety



(c) Differentiated



(d) Interaction Persistence



(e) Re-entrant

6.3 On the direction of the effect

Finally, we examine the reverse link as a complementary empirical exercise. In principle, import experience could facilitate export entry if interactions with foreign suppliers provide information about market conditions or potential demand. However, our mechanism does not require this channel to operate symmetrically. Exporting may generate information that is directly relevant for sourcing decisions without implying comparable learning about export demand. For example, selling cars abroad may reveal information about local input suppliers, whereas importing inputs from that market need not convey meaningful information about demand for the firm's final goods. For completeness, we therefore test exporting after importing explicitly in the data.

We estimate the probability of a firm starting to export to a new destination ($ExportEntry_{ij,t}$) on an indicator variable $NewOrigin_{ij,t-1}$ that takes the value of 1 if the firm started to source from market j in the previous year, and our battery of fixed effects. As reported in Table A13, sourcing from a new market does not affect the probability of exporting there the following year.

Note that this fact can also be interpreted as additional evidence against explanations based on contemporaneous cost complementarities between exporting and importing. If such complementarities were the primary mechanism, the relationship between exporting and importing should be bidirectional, which is not supported by the evidence.

6.4 Partial-year effects

A concern in our analysis is that importing after exporting could be an artifact of the way that the customs data is collected and the partial year problem that arises when using yearly data. For example, assume that concurrently a firm receives market-specific shocks that make it decide to export and import in December, but for some reason importing shipments take more time to arrive. With yearly data, you would observe that importing takes place the year after exporting even when the decisions were made concurrently.

First, we show that importing after exporting remains significant even two years after export entry, alleviating concerns that the pattern reflects timing in annual data. To further address this issue, we exploit half-year export data available for a subsample of firms. Using this information, we construct an indicator for export entry in the first half of the year, $Export\ Entry\ FH_{ij,t-1}$, and exclude cases in which export entry occurs in the second half. We then re-estimate the main specification using this variable, ensuring that import entry occurs at least six months after export entry. Appendix Table A11 reports the results. The coefficient remains positive and statistically significant.

6.5 Export Entry and the Intensive Margin of Imports

Given our focus on extensive-margin decisions, we have so far abstracted from potential effects on the amount of imports from pre-existing sources. However, the model delivers sharp predictions regarding how export entry affects import volumes, providing an additional test to distinguish between a firm-wide productivity/scale-driven mechanism and an import cost–savings mechanism. We derive a proposition regarding the intensive margin and test it in Appendix Section . The proposition establishes that conditional on a given sourcing strategy, if export entry operates through firm-wide expansion, then it should lead to higher import values from all pre-existing sources. In contrast, this does not need to be true if export entry operates through reductions in import costs.

We test this prediction in Table A15. Consistent with the import cost–savings mechanism, export entry has no significant effect on the intensive margin of imports. In contrast, variables that proxy firm-wide scale or productivity shocks–such as employment growth–have a large and positive effect on import values from pre-existing sources, as predicted.

Taken together, these results and the extensive margin results in previous sections indicate that importing after exporting is best explained by reductions in fixed import costs following export entry rather than changes in firm-wide productivity.

7 Backing up Fixed costs and Fixed cost savings g(.)

In previous sections, we showed that importing after exporting is consistent with a reduction in the fixed cost of importing following export entry. Although fixed import costs are not directly observable, we use the model to approximate them and to quantify the associated cost savings generated by recent export experience.

Our approach here requires the additional assumption that time is continuous. Under this assumption, a firm begins importing from a new source exactly when the revenue gains from importing equal the fixed import cost. This entails two limitations. First, because time is observed discretely, the revenue change at entry provides an upper bound on the fixed import cost. Second, revenues in period t reflect decisions taken after export entry. Accordingly, our objective is not to estimate the level of fixed import costs, but rather the cost savings from export experience.

In the model, fixed import costs depend on the firm's prior export experience in market j. Comparing firms that start importing from j without prior export experience to firms that exported to j in $t-1$ and begin importing in t allows us to recover the magnitude of the fixed cost savings induced by export experience, captured by $1 - g(\cdot)$.

Normalize $g(0) = 0$ and recall that $g'(\cdot) > 0$, so cost savings increase with export experience. Consider a firm that begins importing from market j at $t = 2$. The revenue gain from sourcing from j satisfies

$$\left\{ \left[\frac{1}{c(\Omega_{i,2} \cup M_j)} \right]^{\sigma-1} - \left[\frac{1}{c(\Omega_{i,2})} \right]^{\sigma-1} \right\} \varphi_{i,2}^{\sigma-1} \sum_{j \in \Omega_{i,2}^X} A_{ij} \mu_{ij,2} \geq F_j^m (1 - g(.)).$$

This expression implies that fixed-cost savings can be inferred by comparing the revenue change of a firm that starts importing after exporting to j (denoted MaX) with that of an otherwise similar firm that starts importing without prior export experience in j (denoted No-MaX). Taking logs and rearranging yields

$$ln\left\{\frac{\left[\left\{\left[\frac{1}{c(\Omega_{i,2}\cup M_j)}\right]^{\sigma-1}-\left[\frac{1}{c(\Omega_{i,2})}\right]^{\sigma-1}\right\}\varphi_{i,2}^{\sigma-1}\sum_{j\in\Omega_{i,2}^X}A_{ij}\mu_{ij,2}\right]^{MAX}}{\left[\left\{\left[\frac{1}{c(\Omega_{i',2}\cup M_j)}\right]^{\sigma-1}-\left[\frac{1}{c(\Omega_{i',2})}\right]^{\sigma-1}\right\}\varphi_{i',2}^{\sigma-1}\sum_{j\in\Omega_{i,2}^X}A_{i'j}\mu_{i'j,2}\right]^{No-MAX}}\right\}=ln(1-g(.)) \qquad (7)$$

To implement this expression empirically, two additional assumptions are required. First, changes in total exports in response to cost reductions are proportional to changes in revenues, consistent with the model and standard trade frameworks. Second, to avoid mechanically inflating total exports for firms that exported to j in $t-1$, the dependent variable excludes exports to j.[22]

Rearranging equation 7, the cost saving $g(.)$ can be estimated using the following linear specification:

$$ln\left(Exports_{it}-Exports_{it-1}\right)=\beta ExportEntry_{ijt-1}+X_{it}+\gamma_i+\gamma_{sjt}+\epsilon_{ijt}, \text{for } NewOrigin_{ijt}=1.$$

We include market-year-sector fixed effects and control for different sourcing strategies and firm productivity and scale by including the number of previous sources of the firm and total exports, employment, and imports. The estimate β approximates the savings in import costs due to recently acquired export experience: $\beta=ln(1-g(.))$.

As reported in Table A16 of the Appendix, the estimated coefficient is -0.14 and statistically significant at the 1% level. Using this estimate, we predict the outcome values for new importers and summarize the main results in Table 11, focusing on the predicted fixed costs for the year 2007. The median firm-level fixed cost of importing is approximately 110000. Prior export entry, however, reduces these fixed costs by 15%, implying a fixed cost of about $94,009$ for firms that begin importing after entering export markets. Importantly, the entire distribution of fixed import costs shifts downward for firms that start importing after export entry.

For comparison, Halpern, Koren, and Szeidl (2015) estimate that foreign firms in Hungary face fixed import costs roughly 40% lower than domestic firms. In our setting, export experience acquired before starting to import reduces fixed import costs by 15%.

[22]Because export flows upon entry are typically small, results are nearly unchanged if exports to j are included.

Table 11: Fixed costs and Fixed Costs savings

Percentile of Fixed Cost	Fixed Cost $ExportEntry_{ijt-1} = 0$	Fixed Cost $ExportEntry_{ijt-1} = 1$	g(.)
10th	69536	58831	0.15
25th	84925	71804	0.15
50th	110833	94009	0.15
75th	149834	132221	0.12
90th	203033	184131	0.09

Distribution of estimated importing fixed costs for firms that started exporting to market j in $t-1$, firms that not started exporting to market j in $t-1$ and the import cost savings for firms after export entry. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

8 Conclusion

We document a novel fact about the interrelationship between exporting and importing: exporting to a specific market increases the probability of importing from that same market within a year. We develop a framework in which firms make exporting and importing decisions that account for different aspects of import behavior and allow us to rationalize this fact, clarify the channels through which exporting affects importing, and establish qualitative and quantitative implications.

Our paper sheds new light on import behavior and motivates future research and policy design. We emphasize the complexity of importing activities. Importing requires knowledge about available inputs and potential suppliers. This knowledge is not readily available and depends on a firm's experience in foreign markets. Our paper shows that acquiring export experience helps firms reduce their costs of importing. For example, export experience may generate valuable information about suppliers in the foreign market, which, in turn, may facilitate the importing process. We estimate that the import-cost savings associated with export entry are, on average, around 15%. On this ground, our results encourage further research on the determinants of import costs, the role of informational barriers, and the policies that may help firms overcome these barriers.

Furthermore, we show that the duration of import relationships is longer for firms that start importing after exporting. This suggests that import relationships initiated with better information are more likely to succeed. This fact is important for designing policies that provide information about foreign markets to importers. We leave for future research the task of identifying the factors that determine the duration of import relationships.

Finally, if access to higher-quality foreign inputs fosters productivity and product quality, our finding that exporting eases the process of reaching the right suppliers opens new questions regarding the effectiveness of export-promotion policies.

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A Appendix

A.1 Descriptive statistics

We classify firm-market exports into 4 categories: Continuers, Exiters, Entrants and Re-entrants. Continuers are firms that export to a market in t and t-1. Exiters are firms that export to a market in $t-1$, but not in t. Entrants are firms that export to a market in t, but were not exporting to that market in $t-1$ and in any previous year. Finally, there is a considerable number of re-entrants: firms that exported to a market at $t-2$ or before, did not export in $t-1$ and export again in t. We summarize the number of firm-market combinations for each of these categories in Table A1. Notably, we can observe that by 2007, around 27% of export entries into a market are explained by re-entrants.

Table A1: Descriptive: Exporters

Year	*Exporters*	*Continuers*	*Exiters*	*Entrants*	*Reentrants*
2003	18,443				
2004	20,062	13,635	4,808	6,427	
2005	22,093	15,370	4,692	6,065	658
2006	23,036	16,766	5,327	5,095	1,175
2007	23,820	17,644	5,392	4,529	1,647
2008	23,928	18,063	5,757	3,854	2,011
2009	22,640	17,413	6,515	3,036	2,191
2010	22,382	17,267	5,373	2,593	2,522
2011	22,091	17,234	5,148	2,307	2,550
2012	20,637	16,424	5,667	1,989	2,224

Unit of observation is the firm–market pair. The sample is a balanced panel of firms present in every year from 2003 to 2012. *Exporter* is the number of active destination markets served by a firm in year t; the table reports the sum across firms (i.e., total active firm–market pairs). *Continuers* are firm–markets with exports in both $t-1$ and t. *Exiters* are firm–markets with exports in $t-1$ but not in t. *Entrants* are firm–markets with no prior exports before t that export in t. *Re-entrants* are firm–markets with no exports in $t-1$ that exported in some earlier year $t-n$ with $n>1$ and export again in t.

Similarly, we summarize the information according to different importer types:

Table A2: Descriptive: Importers

$Year$	$Importers$	$Continuers$	$Exiters$	$Entrants$
2003	19,031			
2004	21,311	14,103	4,928	7,208
2005	23,757	15,881	5,430	7,876
2006	24,802	17,314	6,443	7,488
2007	25,773	18,257	6,545	7,516
2008	26,543	18,970	6,803	7,573
2009	24,721	18,321	8,222	6,400
2010	26,641	18,751	5,970	7,890
2011	26,793	19,866	6,775	6,927
2012	24,983	18,898	7,895	6,085

Importers count the number of active markets for the firms in year t. Continuers are firm-markets for which the firms imported in $t-1$ and also import in t. Exiters are firm-markets that imported in $t-1$, but not in t. Entrants represent the number of markets from which the firms never imported and start to import in t.

A.2 Main Empirical Fact: Pseudo–Poisson Maximum Likelihood (PPML)

Beyond the Linear Probability Model, we estimate the main empirical fact using Pseudo–Poisson Maximum Likelihood (PPML), with results reported in Table 3. This section of the appendix discusses the theoretical relationship between PPML and logit models for rare binary outcomes, presents additional PPML estimates for interaction terms, and reports a set of robustness exercises based on this approach.

A.2.1 PPML Aproximation to Logit for Binary Rare Events

Proof of Approximation: Let the logistic probability be

$$p(\eta) = \frac{1}{1+e^{-\eta}} = \frac{e^{\eta}}{1+e^{\eta}}, \qquad \eta \in \mathbb{R}.$$

Define $t = e^{\eta}$. When the outcome probability is small, $\eta \ll 0$ and thus $0 < t \ll 1$. In this regime,

$$p(\eta) = \frac{t}{1+t} = t\,(1 - t + t^2 - t^3 + \cdots) = t - t^2 + t^3 - \cdots .$$

Keeping only the leading term gives the exponential approximation

$$p(\eta) \approx t = e^{\eta}.$$

The truncation error is

$$\left|p(\eta) - e^{\eta}\right| = \frac{t^2}{1+t} \le t^2, \quad \text{for } 0 < t < 1.$$

The relative error is

$$\frac{|p(\eta) - e^{\eta}|}{p(\eta)} = \frac{t}{1+t} \approx t = e^{\eta}.$$

Thus the relative error is of order $O(e^{\eta})$.

Numerical illustration. When $p \approx 0.01$, then

$$\eta = \log\left(\frac{p}{1-p}\right) \approx \log(0.0101) \approx -4.595, \qquad e^{\eta} \approx 0.0100.$$

The absolute error bound is at most $t^2 = 10^{-4}$ (i.e., at most 0.01 percentage points), and the relative error is approximately 1%.

PPML vs Logit in our data Next, we document that the predicted values obtained from PPML and logit estimations of models without fixed effects are virtually indistinguishable in our data. For 99.9% of the observations the predicted probabilities coincide almost exactly, differing only for a few outliers at the upper tail of the probability distribution.

Specifically, we estimate the following specification using both PPML and logit:

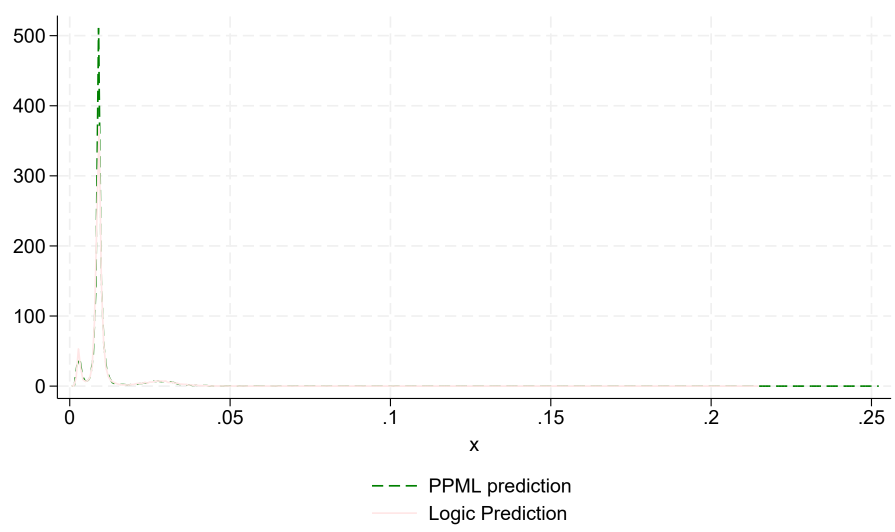
$$NewOrigin_{ijt} = \Phi\big(\beta\, ExportEntry_{ij,t-1} + \Delta \log Expo_{it} + \Delta \log Impo_{it} + \Delta \log Employment_{it} + u\big).$$

Table A3 reports the estimated coefficients under each estimator, which are nearly identical. Figure A1 displays the distribution of predicted probabilities under each method, again showing an almost perfect overlap between PPML and logit predictions in our setting in which probabilities are low.

Table A3: PPML Comparison to Logit

	(1)	(2)
Model	PPML	Logit
	$New\ Origin_{ijt}$	$New\ Origin_{ijt}$
$Export\ Entry_{ijt-1}$	1.027***	1.042***
	(0.034)	(0.035)
$\Delta log(1 + Labor)_{it}$	0.370***	0.379***
	(0.014)	(0.017)
$\Delta log(1 + Imports)_{it}$	0.108***	0.110***
	(0.001)	(0.001)
$\Delta log(1 + Exports)_{it}$	0.014***	0.015***
	(0.001)	(0.002)
Observations	4,936,092	4,936,092

Figure A1: Predicted Probability of New Origin: PPML vs Logit



A.2.2 PPML estimation with interaction terms

Table A4: Differential Effect of Export Entry on Import entry: PPML

Dep. Variable: *New Origin*$_{ijt}$	(1)	(2)	(3)	(4)	(5)
Interaction:	×ExportStatus	×Distance	×Differentiated	×Unknown	×Re-entrants
Export Entry$_{ijt-1}$	0.2304***	0.3088***	0.1340*	0.1937***	0.3140***
	(0.0486)	(0.0385)	(0.0704)	(0.0518)	(0.0419)
Export Entry$_{ijt-1}$	-0.0109	0.0502*	0.2530***	0.1590***	-0.2347**
×Interaction	(0.0766)	(0.0285)	(0.0755)	(0.0566)	(0.1107)
Pseudo R-Squared				0.2231	0.2112
Observations	841,303	841,303	1,153,211	770,445	704,247
Firm-Year FE	yes	yes	yes	yes	yes
Market-Sector-Year FE	yes	yes	yes	yes	yes
Market-Sector-Year-Diff	–	–	yes	–	–
Market-Sector-Year-Unknown	–	–	–	yes	–

Notes: Columns report Poisson pseudo–maximum likelihood (PPML) regressions. The dependent variable is import entry into a new market. Each column report the coefficients of a regression interacting *Export Entry*$_{ijt-1}$ with the variable named in the column header (ExportStatus, Distance, Differentiated, Unknown, or Re-entrants, respectively). All specifications include Firm–Year and Market–Sector–Year fixed effects; additional fixed effects (Market–Sector–Year–Diff/Unknown) are included where indicated. Standard errors, clustered at the firm level, are reported in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

A.3 Main Fact: Non-Linear Probability Models, Logit and alternative specifications

A.3.1 Logit with FE and bias correction

We estimate fixed-effects logit models using the high-dimensional FE algorithm of Stammann, Heiss, and McFadden (2018). Table A5 reports results across alternative FE specifications. Because FE logit suffers from incidental parameter bias—the number of fixed effects grows with the sample and MLE becomes biased in short panels—we report bias-corrected estimates based on Fernández-Val and Weidner (2016) and Hinz and Stammann (2021).

Main results remain qualitatively unchanged and stable across specifications with different set of fixed effects.

Table A5: Probability of importing from a new market: Logit with FE

	(1)	(2)	(3)	(4)	(5)	(6)
$Export\ Entry_{ijt-1}$	0.3248***	0.3617***	0.3860***	0.3626***	0.3825***	0.3297***
	(0.0338)	(0.0350)	(0.0353)	(0.0353)	(0.0356)	(0.0401)
$log(1 + Exports)_{it}$			0.0056***		0.0053***	
			(0.0016)		(0.0017)	
$log(1 + Imports)_{it}$			0.1639***		0.1644***	
			(0.0016)		(0.0016)	
$log(1 + Labor)_{it}$				0.3286***	0.1728***	
				(0.0224)	(0.0237)	
Obs	4,936,437	4,936,437	4,936,437	4,936,437	4,936,437	4,936,437
Non-Sep	3,904,897	2,766,958	2,766,958	2,766,958	2,766,958	841,303
Firm FE	yes	yes	yes	yes	yes	yes
Market FE	yes	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes	yes
Market-Year FE	no	yes	yes	yes	yes	yes
Market-Year-Sector FE	no	no	yes	yes	yes	yes
Firm-Year FE	no	no	no	no	no	yes

A unit of observation is a firm × country × year for the period 2003-2012. The dependent variable, $New\ Origin_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin in year t. $Export\ Entry_{ijt-1}$ is an indicator that takes value 1 when the firm starts exporting to country j in year $t-1$. Columns (1) to (7) report results for Logit estimations with alternative sets of controls and fixed effects and corrected bias. Standard errors clustered at the firm level are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

A.4 Main Fact: Sensitivity analysis

A.4.1 Only Main Export Product

It is possible that multi-product firms specialize some products in some regions and even when controlling for firm shocks, there can be firm-product productivity shocks that could translate importing after exporting from the same location if some of the firm products are specific to certain locations. To test this, we re-estimate our main specification focusing exclusively on each firm's main exported product, defined as the product with the highest sale during the sample period. On average, this product represents more than 75% of a firm total exports during the period.

Results are presented in Table A6 and are similar to those in the main table.

Table A6: Probability of importing from a new market, Only Main Export Product

Dep variable: New Origin$_{ijt}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Export Entry$_{ijt-1}$	0.00399***	0.00868***	0.00884***	0.00901***	0.00885***	0.00902***	0.00636***
	(0.00069)	(0.00072)	(0.00072)	(0.00072)	(0.00072)	(0.00072)	(0.00070)
$\Delta log(1 + Exports)_{it}$				0.00004***		0.00004***	
				(0.00001)		(0.00001)	
$\Delta log(1 + Imports)_{it}$				0.00060***		0.00059***	
				(0.00001)		(0.00001)	
$\Delta log(1 + Labor)_{it}$					0.00192***	0.00158***	
					(0.00029)	(0.00028)	
Observations	4,943,260	4,943,260	4,943,260	4,943,260	4,943,260	4,943,260	4,943,260
R-squared	0.03171	0.25835	0.26361	0.26435	0.26364	0.26436	0.30051
Firm FE	yes	yes	yes	yes	yes	yes	yes
Market-Year FE	yes	yes	yes	yes	yes	yes	yes
Firm-Market-Sector FE	no	no	yes	yes	yes	yes	yes
Firm-Market FE	no	yes	yes	yes	yes	yes	yes
Firm-Year FE	no	no	no	no	no	no	yes

A unit of observation is a firm × country × year for the period 2003-2012. Include only exports of the main product of the firm. The dependent variable, *New Origin*$_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin in year t. The mean of this variable is 0.009. *Export Entry*$_{ijt-1}$ is an indicator that takes value 1 when the firm starts exporting to country j in year $t-1$. Variables in columns (3)–(6) are expressed as $log(1+x)$ to retain observations with zero trade values. Columns (1) to (7) report results for OLS estimations with alternative sets of controls and fixed effects. Standard errors allow for 10,730 clusters at the firm level and are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

A.4.2 Sensitivity: Main Fact, all firms

In the main analysis, we restrict the sample to firms that are active in all years from 2003 to 2012. Table A7 reports results for the full sample, including firms that appear only in some years. Results are almost identical.

Table A7: Probability of importing from a new market, All firms

Dep variable: New Origin$_{ijt}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$Export\ Entry_{ijt-1}$	0.00833***	0.00910***	0.00907***	0.00934***	0.00912***	0.00936***	0.00668***
	(0.00075)	(0.00074)	(0.00075)	(0.00075)	(0.00075)	(0.00075)	(0.00074)
$\Delta log(1 + Exports)_{it}$				0.00007***		0.00007***	
				(0.00001)		(0.00001)	
$\Delta log(1 + Imports)_{it}$				0.00096***		0.00096***	
				(0.00001)		(0.00001)	
$\Delta log(1 + Labor)_{it}$					0.00203***	0.00138***	
					(0.00020)	(0.00019)	
Observations	6,970,917	6,970,917	6,970,917	6,970,917	6,970,917	6,970,917	6,970,917
R-squared	0.05025	0.32225	0.34301	0.34434	0.34304	0.34436	0.36955
% Δ Prob.	83.3	91	90.7	93.4	91.2	93.6	66.8
Firm FE	yes	yes	yes	yes	yes	yes	yes
Market-Year FE	yes	yes	yes	yes	yes	yes	yes
Firm-Market-Sector FE	no	no	yes	yes	yes	yes	yes
Firm-Market FE	no	yes	yes	yes	yes	yes	yes
Firm-Year FE	no	no	no	no	no	no	yes

A unit of observation is a firm $\times$ country $\times$ year for the period 2003-2012. Includes firms that are not present during some years of the panel. The dependent variable, $New\ Origin_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin in year t. The mean of this variable is 0.009. $Export\ Entry_{ijt-1}$ is an indicator that takes value 1 when the firm starts exporting to country j in year $t-1$. Variables in columns (3)–(6) are expressed as $log(1+x)$ to retain observations with zero trade values. Columns (1) to (7) report results for OLS estimations with alternative sets of controls and fixed effects. Standard errors allow for 18,975 clusters at the firm level and are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

Table A8: Probability of importing from a new market, no Firm-Market FE

Dep variable: New Origin$_{ijt}$	(1)	(2)	(3)	(4)	(5)	(6)
$Export\ Entry_{ijt-1}$	0.00638***	0.00742***	0.00761***	0.00742***	0.00760***	0.00694***
	(0.00071)	(0.00071)	(0.00071)	(0.00071)	(0.00071)	(0.00071)
$\Delta log(1 + Exports)_{it}$			0.00009***		0.00009***	
			(0.00001)		(0.00001)	
$\Delta log(1 + Imports)_{it}$			0.00106***		0.00106***	
			(0.00001)		(0.00001)	
$\Delta log(1 + Labor)_{it}$				0.00266***	0.00204***	
				(0.00031)	(0.00028)	
Observations	4,945,545	4,945,545	4,945,545	4,945,545	4,945,545	4,945,545
R-squared	0.03597	0.04387	0.04584	0.04392	0.04586	0.07513
Firm FE	yes	yes	yes	yes	yes	yes
Market-Year FE	yes	yes	yes	yes	yes	yes
Market-Sector-Year FE	no	yes	yes	yes	yes	yes
Firm-Year FE	no	no	no	no	no	yes
Mean dep variable	0.00851	0.00851	0.00851	0.00851	0.00851	0.00851

A unit of observation is a firm × country × year for the period 2003-2012. The dependent variable, $New\ Origin_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin in year t. The mean of this variable is 0.009. $Export\ Entry_{ijt-1}$ is an indicator that takes value 1 when the firm starts exporting to country j in year $t-1$. Variables in columns (3)–(6) are expressed as $log(1+x)$ to retain observations with zero trade values. Columns (1) to (7) report results for OLS estimations with alternative sets of controls and fixed effects. Standard errors allow for clusters at the firm level and are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

A.4.3 Dealing with Zeros in Controls: Exports, Imports, and Employment

In the main text, we handle zeros in productivity proxies by using $\log(1 + x)$ for the productivity controls. To assess the sensitivity of our results, we replace those controls with the first difference of the inverse hyperbolic sine, $\Delta \operatorname{asinh}(x_{it})$. The resulting coefficients are quantitatively similar to those in the main specification.

Table A9: Probability of importing from a new market: IHS

Dep variable: New Origin$_{ijt}$	(1)	(2)	(3)
$Export\ Entry_{ijt-1}$	0.00981***	0.00962***	0.00981***
	(0.00069)	(0.00069)	(0.00069)
$\Delta arsinh(Exports_{it})$	0.00007***		0.00007***
	(0.00001)		(0.00001)
$\Delta arsinh(Imports_{it})$	0.00059***		0.00059***
	(0.00001)		(0.00001)
$\Delta arsinh(Labor_{it})$		0.00191***	0.00154***
		(0.00030)	(0.00030)
Observations	4,936,092	4,936,092	4,936,092
R-squared	0.26474	0.26402	0.26476
Firm-Market FE	yes	yes	yes
Market-Year FE	yes	yes	yes
Mean dep variable	0.00835	0.00835	0.00835
N Clusters	10770	10770	10770

A unit of observation is a firm $\times$ country $\times$ year for the period 2003-2012. The dependent variable, $New\ Origin_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin in year t. The mean of this variable is 0.009. $Export\ Entry_{ijt-1}$ is an indicator that takes value 1 when the firm starts exporting to country j in year $t-1$. Variables in columns (3)–(6) are expressed as $arcsinh(x)$ to retain observations with zero trade values. Columns (1) to (3) correspond to columns (4) to (7) of the main table. Standard errors allow for clusters at the firm level and are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

Additionally, we run the regression for the subsample of firms that always import and export from at least one country. The main coefficient remains positive and significant.

Table A10: Probability of importing from a new market, always exporters and importers

Dep variable: New Origin$_{ijt}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$Export\ Entry_{ijt-1}$	0.00423***	0.00837***	0.00880***	0.00902***	0.00891***	0.00909***	0.00755***
	(0.00130)	(0.00141)	(0.00143)	(0.00143)	(0.00143)	(0.00143)	(0.00139)
$\Delta log(Exports)_{it}$				0.00096***		0.00087***	
				(0.00025)		(0.00024)	
$\Delta log(Imports)_{it}$				0.00211***		0.00206***	
				(0.00019)		(0.00019)	
$\Delta log(Labor)_{it}$					0.00999***	0.00849***	
					(0.00177)	(0.00174)	
Observations	621,236	621,236	621,236	621,236	621,236	621,236	621,236
R-squared	0.05331	0.27909	0.30068	0.30115	0.30081	0.30124	0.34197
Firm FE	yes	yes	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes	yes	yes
Market FE	yes	yes	yes	yes	yes	yes	yes
Firm-Market FE	no	yes	yes	yes	yes	yes	yes
Market-Year FE	no	no	yes	yes	yes	yes	yes
Firm-Year FE	no	no	no	no	no	no	yes
Mean dep variable	0.00835	0.00835	0.00835	0.00835	0.00835	0.00835	0.00835
N Clusters	1754	1754	1754	1754	1754	1754	1754

A unit of observation is a firm × country × year for the period 2003-2012. Sample of firms that always import and export from at least one country. The dependent variable, $New\ Origin_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin in year t. $Export\ Entry_{ijt-1}$ is an indicator that takes value 1 when the firm starts exporting to country j in year $t-1$. Standard errors allow for clusters at the firm level and are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

A.4.4 Excluding importing after exporting in the same half-year

We exploit half-year export data available for a subsample of firms. Using this information, we construct an indicator for export entry in the first half of the year, $Export\ Entry\ FH_{ij,t-1}$, and exclude cases in which export entry occurs in the second half. We then re-estimate the main specification using this variable, ensuring that import entry occurs at least six months after export entry. Appendix Table A11 reports the results. The coefficient remains positive and statistically significant.

Table A11: Importing after Exporting: Excluding Second-Half Export Starts

Dep variable: New Origin$_{ijt}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$ExportEntry_{ijt-1}$	0.00254***	0.00610***	0.00624***	0.00634***	0.00626***	0.00634***	0.00381***
(1st-Half)	(0.00085)	(0.00090)	(0.00090)	(0.00090)	(0.00090)	(0.00090)	(0.00089)
$\Delta log(1 + Exports)_{it}$				0.00003**		0.00003**	
				(0.00001)		(0.00001)	
$\Delta log(1 + Imports)_{it}$				0.00056***		0.00056***	
				(0.00001)		(0.00001)	
$\Delta log(1 + Labor)_{it}$					0.00206***	0.00172***	
					(0.00032)	(0.00031)	
Observations	4,392,732	4,392,732	4,392,732	4,392,732	4,392,732	4,392,732	4,392,732
R-squared	0.03010	0.27076	0.27566	0.27636	0.27569	0.27639	0.31213
Mean dep variable	0.0085	0.0085	0.0085	0.0085	0.0085	0.0085	0.0085
Firm FE	yes	yes	yes	yes	yes	yes	yes
Market-Year FE	yes	yes	yes	yes	yes	yes	yes
Firm-Market-Sector FE	no	no	yes	yes	yes	yes	yes
Firm-Market FE	no	yes	yes	yes	yes	yes	yes
Firm-Year FE	no	no	no	no	no	no	yes
N Clusters	10769	10769	10769	10769	10769	10769	10769

A unit of observation is a firm × country × year for the period 2003-2012. The dependent variable, $New\ Origin_{ijt}$, is an indicator that takes value 1 when the firm starts sourcing from a new origin in year t. $Export\ Entry_{ijt-1}$ is an indicator that takes value 1 when the firm starts exporting to country j in the first half of year $t-1$. We exclude observations with export entry in the second half of the year. Columns (1) to (7) report results for OLS estimations with alternative sets of controls and fixed effects. Standard errors clustered at the firm level are in parentheses. ***,**,* denotes statistical significance at the 1, 5, and 10 percent levels. Source: Exports and Imports are obtained from official customs administrative data. Employment is obtained from AFIP (Argentina Internal Revenue Service).

A.4.5 Sequential Regression Approach Versus Event Study Design

The Sequential regressions approach estimates separate regressions for each lag s:

$$New\_origin_{ijt} = \alpha_s\, Export\_entry_{ij,t-s} + FE + \epsilon_{ijt}, \quad s \in \{-4, \dots, 4\}, \tag{8}$$

Crucially, for each lag s, we can drop all observations after a firm experiences the import or the export event. This ensures that the risk set in each regression includes only firms that have not yet experienced the event, preserving variation in the independent and dependent variables.

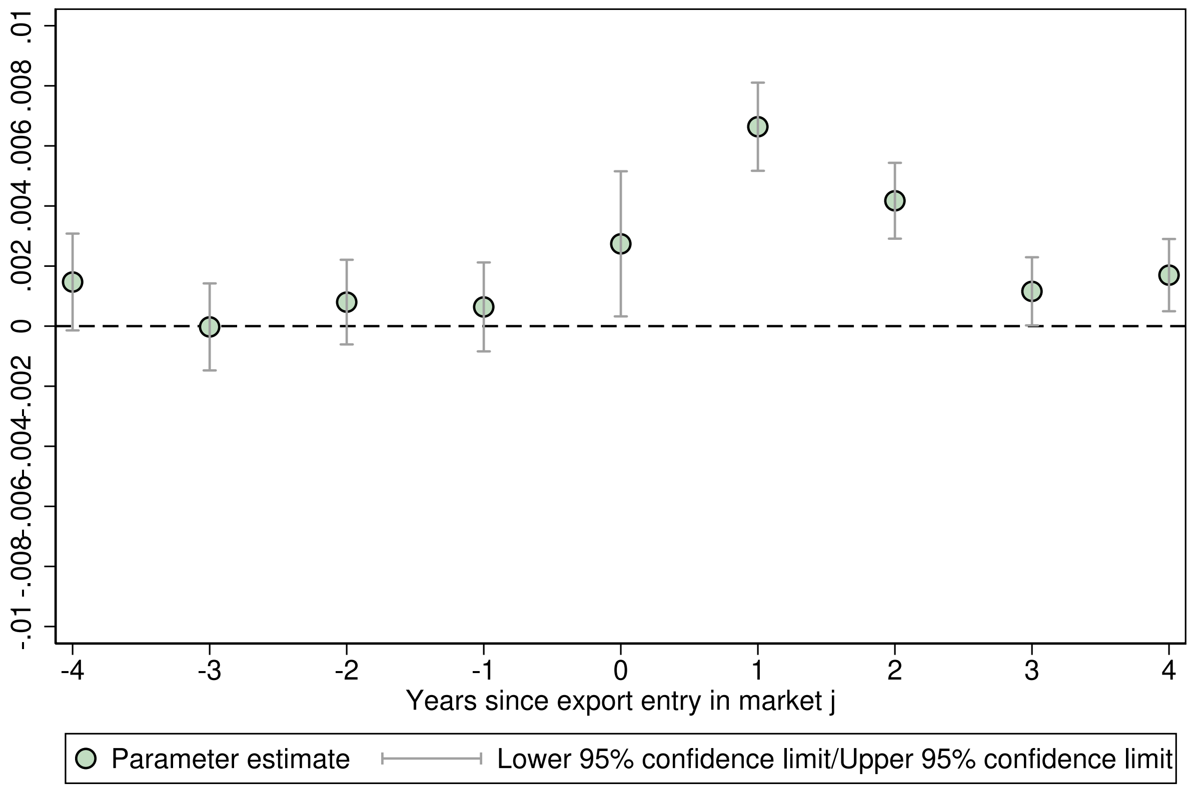
By construction, this sequential regression avoids the identification problems inherent in stagerred event studies and provides an interpretable measure of the temporal dynamics linking export and import entry.

Figure A2 plots the coefficients α from each separate regressions estimated for each value of

$s \in \{-4, -3, -2, -1, 0, 1, 2, 3, 4\}$. Each coefficient can be interpreted as the marginal effect of export entry s years ago on the probability of starting to import from that same market. First, note that we do not observe any effect on the probability of new imports in the years before the firm reaches the market j as an exporter. Now, focus on $s = 0$. Although not significant at 1%, the effect of an export entry also manifests within the same year. This could be reflecting simultaneity between both activities in a given market or partial year effects as emphasized by Bernard, Boler, Massari, Reyes, and Taglioni (2017) in the case of export entry. More importantly, note that the coefficient is considerably lower than in the case of $s = 1$.

The effect peaks at $s = 1$, which is the main focus of our analysis. It remains sizable at $s = 2$, although smaller, indicating that some firms start importing not in the year of export entry but in the following year. After three years, the effect stabilizes near zero. This dynamic pattern suggests that most of the impact occurs within the first two years after export entry. Under a learning-about-suppliers hypothesis, which we explore in the following sections, this pattern is consistent with two mechanisms: (i) market-specific experience is most valuable immediately after entry and loses its value over time, and (ii) if firms do not identify suitable new suppliers within the first two years after export entry, this likely indicates that better options do not exist, making it unlikely that they will revise their sourcing toward this market in later years.

Figure A2: Probability of start importing from j in year t after export entry to j in year $t - s$



Note: The figure plots the coefficients from regressions where the dependent variable is import entry to a new origin (New_Origin_{ijt}) and the key independent variable is export entry to destination j in year $t - s$. Each circle shows the coefficient for different regression that set different values for $s \in \{-4, -3, -2, -1, 0, 1, 2, 3, 4\}$, with negative values indicating years before export entry. All regressions include firm-year, firm-market, and market-year fixed effects. Gray lines indicate 95% confidence intervals. Source: Official customs data from Argentina.

A.4.6 Other Proxies for Productivity

In Table A12 we check the robustness of our results to other proxies for productivity and scale. Variables in level control for the scale of the firm and variables in growth for changes in scale or productivity. Results remain qualitatively unchanged and coefficients are stable through specifications.

Table A12: Robustness check: other proxies for productivity and scale

	(1)	(2)	(3)
Dep Variable: $NewOrigin_{ijt}$			
$Export\ Entry_{ijt-1}$	0.00907***	0.00981***	0.00903***
	(0.00070)	(0.00069)	(0.00070)
$log(1 + Labor)_{it}$	0.00208***		0.00187***
	(0.00023)		(0.00024)
$log(1 + Exports)_{it}$	0.00014***		0.00015***
	(0.00002)		(0.00002)
$log(1 + Imports)_{it}$	0.00128***		0.00134***
	(0.00002)		(0.00002)
$\Delta log(1 + Imports)_{it}$		0.00059***	-0.00007***
		(0.00001)	(0.00002)
$\Delta log(1 + Exports)_{it}$		0.00007***	-0.00002
		(0.00001)	(0.00002)
$\Delta log(1 + Labor)_{it}$		0.00153***	0.00058**
		(0.00028)	(0.00026)
Observations	4,844,607	4,936,103	4,844,607
R-squared	0.26704	0.26474	0.26705
Market FE	yes	yes	yes
Firm-Market FE	yes	yes	yes
Market-Sector-Year FE	yes	yes	yes

Standard errors in parenthesis are clustered at the firm level. ***,** and * indicates significance at the level 1%, 5%, and 10% respectively.

A.5 Does new imports trigger export entry within the following year?

If the link between export entry and new sourcing were driven only by shared operational costs, there would be no reason to expect a systematic order between them. A firm that starts sourcing from country j should face lower costs of exporting to j, so we should frequently observe exporting after importing. If the mechanism were learning about suppliers, it is also unclear ex ante whether importing from j should provide information relevant for exporting there. Our theory does not predict how importing from a country affects export entry in the following year.

To test this empirically, we estimate the probability that a firm starts exporting to j ($ExportEntry_{ij,t}$) as a function of whether it began sourcing from j in the previous year ($NewOrigin_{ij,t-1} = 1$), including our full set of fixed effects. As shown in Table A13, the effect of new sourcing on subsequent export entry is only about one quarter as large as the effect of exporting on subsequent importing. In our preferred specification (column 4), which includes firm–year fixed effects, the coefficient is effectively zero.

Table A13: Exporting does not follow importing

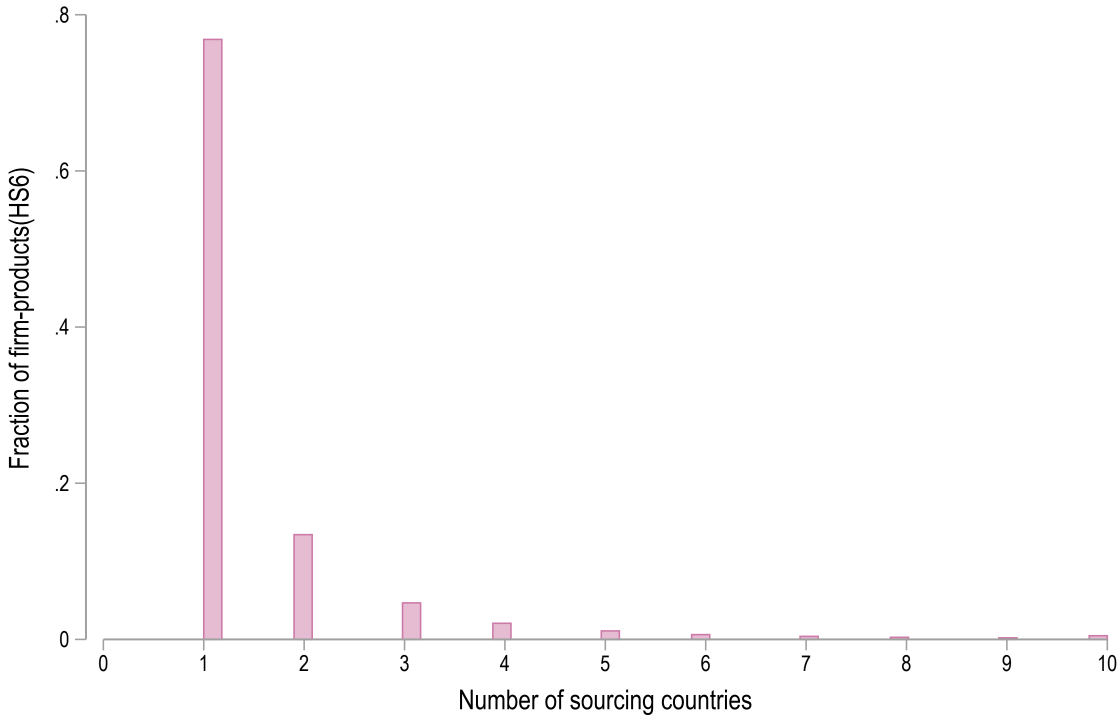
	$ExportEntry_{ijt}$			
	(1)	(2)	(3)	(4)
$New\ Origin_{ijt-1}$	0.002**	0.002**	0.002**	0.000
	(0.001)	(0.001)	(0.001)	(0.001)
$\Delta log(1 + Exports)_{it}$	-0.000***		-0.000***	
	(0.000)		(0.000)	
$\Delta log(1 + Imports)_{it}$	0.000		0.000	
	(0.000)		(0.000)	
$\Delta log(1 + Labor)_{it}$		0.001***	0.001***	
		(0.000)	(0.000)	
Observations	4,451,919	4,451,919	4,451,919	4,451,911
R-squared	0.213	0.212	0.213	0.239
Firm-Market FE	yes	yes	yes	yes
Market-Sector-Year FE	yes	yes	yes	yes
Firm-Year FE	no	no	no	yes

Standard errors in parenthesis are clustered at the firm level. ***,** and * indicates significance at the level 1%, 5% and 10% respectively.

B Theoretical Framework

B.1 Most of the firms import a given product (hs6 digits) from only one source

Figure A3: Most of the firms import a given product from only one source



B.2 Firm shocks and Exporting Decision: Variance Decomposition

We use the data decompose the variation in both the intensive and extensive margins of exporting into four components: (i) firm–year effects, (ii) firm–market effects, (iii) market–sector–year effects, and (iv) a residual term capturing firm–market–year-specific shocks, which are represented by $\mu_{i,j,t}$ in the model. We present these results in Appendix Table A14.

For the intensive margin, we find that 43% of the variation is explained by firm–year fixed effects, 40% by firm–market fixed effects, and 1.5% by market–sector–year effects. The remaining 15% corresponds to shocks $\mu_{i,j,t}$. For the extensive margin, 15.6% of the variation is explained by firm–year effects, 52% by firm–market effects (consistent with stable firm–market relationships), and the market–sector–year component is negligible. Finally, shocks to firm–market profitability, $\mu_{i,j,t}$, explain the remaining 32% the variation in export status.

Table A14: Variance Decomposition: Exporting, intensive and extensive margins

Decomposition	Firm-Year	Firm-Market	Market-Sector-Year	μ_{ijt}
Export Status	0.156	0.521	0.003	0.320
$\log(\text{Exports})_{ijt}$	0.431	0.404	0.015	0.150

B.3 Static model of importing and exporting

We present the static model that firms solve in each period. The model combines Melitz (2003) model of exporting with Antras, Fort, and Tintelnot (2017) model of importing.

Demand

We assume that in each market j there is a demand for final goods given by a standard CES:

$$U_j = \left[\int_i s_{ij}^{1/\sigma} q_{ij}^{\sigma-1/\sigma} di \right]^{\sigma/\sigma-1},$$

where $\sigma > 1$ is the elasticity of substitution.[23] s_{ij} summarizes the taste for firm i's good in destination j. We let s_{ij} depend on two components: $s_{ij} = A_j \mu_{ij}$. A_j denotes the average taste of consumers in market j for goods produced by Argentinian firms. μ_{ij} is a taste component specific to the link between firm i and market j. We refer to this component as firm-market profitability. Note that the presence of this component implies that a firm may change its export decisions when facing a demand shock to μ_{ij}, even in absence of any variation of productivity.

Supply

On the supply side, there is a measure N of final-good producers, all of each produce a single differentiated product. Firms are characterized by an heterogeneous attribute φ that, for concreteness, is interpreted as core productivity. Just like in Melitz (2003), this parameter is exogenously drawn from a probability distribution $\xi(\varphi)$ and revealed to the firms once they start to produce.

There is a set of products $\mathbb{K}$ and a set of markets $\mathbb{J}$, from which the foreign inputs can be sourced. Varieties are differentiated by their market of origin within the same product class. The difference between products and varieties is embedded in the technology. In particular, we assume that the production function takes the following nested form:

$$y = q(z) = \varphi \left[\sum_k x_k^{\frac{\theta-1}{\theta}} \right]^{(\theta/\theta-1)} \quad with \quad x_k = max[z_{dk}; \eta_{1k} z_{1k}; ...; \eta_{mk} z_{mk}]$$

[23] The main conclusions remain unchanged if we let σ_j vary across markets.

where η_{jk} represents the quality of product k sourced from market j, z_{jk} denotes the quantity of product k sourced from market j. $\theta > 1$ is the elasticity of substitution between inputs. Within an intermediate product k, input varieties are perfectly substitutes, so the firm optimally selects only one source for each intermediate product. This feature is borne out in the data as for a given product at HS6-digit level, around 80% of firms import it from only one source (see Figure A3 in Appendix).

Importing k from j involves fixed cost. A novel aspect of the framework is that import costs can also vary across firms according to their trading experience in market j.[24]

B.3.1 Firms' decisions and associated costs conditional on the sourcing strategy

We briefly study decisions in steady-state. It is convenient to define a sourcing strategy Ω as the subset of input varieties (j, k), such that the firm imports these varieties. Similarly, we define an exporting strategy Ω^X as the subset of destinations j, such that exports are positive.[25] To characterize the firm's decision, we proceed in three steps. First, conditional on the sourcing strategy Ω and the export strategy Ω^X, we characterize the intensive margin of imports from active sources, the minimum cost function, and derive the optimal revenues in each active market. Second, conditional on the sourcing strategy, we characterize the exporting strategy. Third, we characterize the sourcing strategy.

Step 1: Optimal amount of imports, cost function and revenues conditional on sourcing and exporting strategy

We begin by solving the optimal minimum variable cost. To do so, we compute the intensive margin for each variety in the sourcing strategy set (z^*_{jk}); the minimum marginal cost function $c(\Omega)/\varphi$; and optimal prices and revenues.

Conditional on the sourcing strategy, the intensive margin of imports is fully determined by the solution to the cost function,

$$z^*_{jk}(\varphi, \Omega, y) \equiv arg \min_{z_{jk}} \sum_{(j,k)\in\Omega} p_{jk} z_{jk} \text{ s.t } y = \varphi \left[\sum_{(j,k)\in\Omega} (\eta_{jk} z_{jk})^{\frac{\theta-1}{\theta}} \right]^{(\theta/\theta-1)}. \tag{9}$$

This yields that the value of imports of intermediate k from market j is given by :

[24] On exporting, Albornoz, Fanelli, and Hallak (2016), Morales, Sheu, and Zahler (2019), Das, Roberts, and Tybout (2007) also allow export costs to vary with experience or knowledge.

[25] Note that both sourcing and export strategy are firm-year specific.

$$p_{jk}z^*_{jk}(\varphi,\Omega,y) = \frac{y}{\varphi}\frac{\left(\frac{\eta_{jk}}{p_{jk}}\right)^{\theta-1}}{\left[\sum_{(j,k)\in\Omega}\left(\frac{\eta_{jk}}{p_{jk}}\right)^{\theta-1}\right]^{\theta/(\theta-1)}} \qquad \forall(j,k)\in\Omega, \tag{10}$$

Once we have the intensive margin of imports for any potential sourcing strategy, it is straightforward to obtain the minimum unit cost function for a given sourcing strategy:

$$\frac{c(\Omega)}{\varphi} = \frac{1}{\varphi}\left[\sum_{(j,k)\in\Omega}\left(\frac{\eta_{jk}}{p_{jk}}\right)^{\theta-1}\right]^{-\frac{1}{\theta-1}}.$$

To derive optimal prices, each firm chooses its price in each market to maximize profits subject to a downward-sloping residual demand curve with constant elasticity of substitution. From the first-order condition, the equilibrium price for each variety is a constant mark-up over marginal costs. This constant mark-up implies the typical relationship between productivity and prices. The difference imposed by considering importing is that prices also depend on the firm's sourcing strategy. In particular, local prices are given by:

$$p = \frac{\sigma}{\sigma-1}\frac{c(\Omega)}{\varphi}.$$

Thus, revenues for a firm i exporting to market j, paying an iceberg cost equal to τ_j are given by,

$$r_{ij}(\Omega^X,\Omega,\varphi) = \left[\frac{\varphi_i}{c(\Omega_i)}\right]^{(\sigma-1)} A_j\mu_{ij},$$

defining A_j as destination specific appeal: $A_j = \left(\frac{\sigma}{\sigma-1}\right)^{-\sigma}(1+\tau_j)^{1-\sigma}P_j^{\sigma-1}X_j a_j.$, where τ_j are iceberg costs to reach destination j and P_j is the price index in destination j.

It follows that total revenues for a firm with sourcing strategy Ω and export strategy Ω^X are given by,

$$R_i = \left[\frac{\varphi_i}{c(\Omega_i)}\right]^{(\sigma-1)} B_i(\Omega^X),$$

where $B_i(\Omega^X) = \sum_j I^x_{ij}A_j\mu_{ij}$ is a firm specific variable that summarizes different components of the demand.

Step 2: Exporting Strategy

Conditional on the sourcing strategy and the optimal unit cost $c(\Omega_i)$, a firm will export to market j if the benefits outweigh the fixed costs of exporting to that market (F^x_j):

$$r_{ij}(\Omega^X, \Omega, \varphi) = \left[\frac{\varphi_i}{c(\Omega_i)}\right]^{(\sigma-1)} A_j \mu_{ij} \geq F_j^x,$$

There are three determinants of export entry to a market. First, firms with higher core productivity (φ) are more likely to export to any destination j. Second, firms are more likely to export to markets with higher A_j. Third, firms are more likely to export to destinations with higher firm-market profitability, μ_{ij}. Given these features of export entry, it follows:

B.4 Additional Proofs

Proof We prove each part in turn.

Part I (Market Previous Knowledge): Suppose that in the absence of export entry, a firm has a level of market-specific knowledge K_{ij} about market j. When the firm exports, it acquires additional information $\Delta K > 0$, so that its new knowledge level becomes $K_{ij} + \Delta K$. The reduction in fixed import costs is captured by the term -$[F_j^m g(K_{ij} + \Delta K) - F_j^m g(K_{ij})]$. A first-order Taylor expansion yields an approximate change of

$$\Delta \text{Cost} \approx -F_j^m g'(K_{ij}) \Delta K < 0.$$

Given $g'(.) > 0$, an increase in K reduces the import costs of the firm. Importantly, because $g''(K_{ij}) < 0$, the cost reductions are smaller for higher initial stock of knowledge K_{ij}:

$$\frac{\partial \Delta \text{Cost}}{\partial K_{ij}} \approx -F_j^m g''(K_{ij}) \Delta K > 0.$$

Thus, the incentive to import is more strongly affected by export entry when prior market knowledge is low.

Part II (Product Specificity): Assume now that the fixed cost reduction depends not only on knowledge K_{ij} but also on a product-specific parameter u (where, for instance, higher u indicates greater differentiation or higher technological content). Denote the cost reduction as $F_j^m g(K_{ij}, u)$. If the cross-partial derivative $\frac{\partial^2 g}{\partial K_{ij} \partial u} > 0$, then for products with higher specificity (larger u), a marginal increase in K_{ij} yields a larger reduction in fixed import costs. Hence, export entry (which increases K_{ij}) will have a stronger effect on import decisions when the product is more differentiated or technologically advanced. ■

B.5 Export entry and the intensive margin of imports

In this section, we examine how export entry affects the intensive margin of imports. The following proposition summarizes firms' responses on the intensive margin, depending on whether export entry is associated with productivity gains or with a decline in import costs.

Proposition **5 (Intensive Margin)**
Provided $\sigma > 1$ and $\sigma > \theta$. Conditional on the sourcing strategy, $\Omega_{i,1} = \Omega_{i,2}$, then:

1. *If export entry is associated with a subsequent firm-wide productivity improvement or scale expansion, the firm's volume of imports increase from all previously active source markets.*
2. *If export entry instead operates through reductions in import fixed costs, then export entry has no effect on the volume of imports from source markets that were already active.*

Proof Condition on the firm's optimal sourcing strategy $\Omega_{i,2}$. Using equation 10, total imports from an active source j' in period $t = 2$ can be written as

$$\sum_{k\in\Omega_{i,2}} p_{j'k,2} z_{j'k,2} = \frac{\sigma-1}{\sigma} \frac{\varphi_{i,2}^{\sigma-1}}{c(\Omega_{i,2})^{\sigma-\theta}} \sum_{k\in\Omega_{i,2}} \left(\frac{\eta_{j'k}}{p_{j'k}}\right)^{\theta-1} \sum_{j\in\Omega_{i,2}^X} A_{j,2}\mu_{ij,2}.$$

Two observations follow immediately.

1. *Firm-wide shocks.* Holding the sourcing set $\Omega_{i,t}$ constant and assuming $\sigma > 1$, imports from any active source are strictly increasing in firm-wide productivity $\varphi_{i,2}$ and in the firm-wide scale shifter $\sum_{j\in\Omega_{i,2}^X} A_{j,2}\mu_{ij,2}$. Thus, firm-wide productivity or firm-wide scale raise imports from all pre-existing sources.
2. *Import fixed cost reductions.* Conditional on the sourcing strategy $\Omega_{i,t}$, reductions in import fixed costs in period 2 affect total imports only through changes in the optimal sourcing set. Once the set of active sources is fixed, such cost reductions do not alter the intensive-margin of imports from pre-existing sources as fixed cost do not appear in the equation above.

This result implies that, conditional on the firm maintaining its sourcing strategy after export entry, any change in imports from pre-existing source markets must be driven by firm-wide shocks. By contrast, reductions in import fixed costs have no effect on the intensive margin of imports from sources that were already active. ■

We use these predictions to distinguish further whether importing after exporting reflects firm-wide productivity or scale gains, or instead reductions in market-specific import fixed costs. Proposition 2 implies that holding the sourcing strategy of the firm constant, export entry that operates through firm-wide productivity or scale gains should affect the intensive margin of imports. In contrast, if export entry operates mainly through fixed-cost reductions, it might not have an effect on imports from pre-existing sources.

To test this implication, we estimate:

$$\Delta \log(Imports_{ijt}) = \alpha, ExportEntry_{i,t-1} + \beta \log(1 + labor_{i,t}) + \delta_{ij} + \delta_{jt} + \mu_{ijt}, \quad (11)$$

where $Imports_{ijt}$ is firm i's import value from market j in year t, and $ExportEntry_{i,t-1}$ is an indicator equal to one if firm i entered a new export destination in $t-1$. We include firm–market fixed effects (δ_{ij}) and market–year fixed effects (δ_{jt}), and restrict the sample to firm-market that are importers in two consecutive years ($Imports_{ij,t-1} > 0$ and $Imports_{ij,t} > 0$), so that identification comes exclusively from the intensive margin.

Table A15 reports the results. Consistent with fixed cost of importing being more relevant, export entry has no effect on the value of imports from pre-existing sources. In contrast, changes in employment-—as proxy for firm-wide productivity or scale gains—has a positive and significant effect on imports from all incumbent sources as expected.

Table A15: Intensive margin: The effect of an export entry on the value of imports from pre-existent sources

Dep Variable: $\Delta log(Imports_{ijt})$	(1)	(2)
$Export\ Entry_{it-1}$	0.029	0.028
	(0.026)	(0.026)
$\Delta log(Labor)_{it}$		0.389***
		(0.068)
Observations	28,145	28,145
R-squared	0.381	0.383
Firm-Market FE	yes	yes
Sector-Market-Year FE	yes	yes
Cond Sources	yes	yes

Standard errors in parenthesis are clustered at the firm level. ***,** and * indicates significance at the level 1%, 5%, and 10% respectively.

We take these results on the intensive margin, together with results regarding the extensive margin, and the fact that the main effect remains after controlling for firm-year fixed effects as further evidence that the effect of export entry on new imports is associated with a fall in import costs.

B.6 Backing Up Fixed Costs

Table A16: Difference in revenues at entry to import market

	(1)
	$\Delta Revenues_{it}$
$ExportEntry_{ijt-1}$	-0.14397**
	(0.07230)
Observations	11,589
R-squared	0.84960
Firm FE	yes
Market-Year FE	yes
Firm Controls	yes

Notes: Estimations conditional on $NewOrigin_{ijt} = 1$. Firm controls include number of sources and total exports in previous period. Clustered standard errors at the firm level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.