

ON THE PRO-IMPORT EFFECT OF IMMIGRANTS. REVIEWING LESSONS FROM THE MASS MIGRATION TO THE AMERICAS

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Abstract

There is a vast consensus in economics about the positive impact of migration on trade flows. Estimations, mainly based on augmented gravity model, usually present a higher elasticity of import than export flows. Why do immigrants affect more imports than exports in the host-country?

This is probably due to the coexistence of two forces that foster import flow: the preference channel and the network channel, whereas export benefits only from the last one. It is technically difficult to disentangle the two effects, but it is known that there is ‘something’ impacting more on imports than on exports. This ‘something’ seems to be the migrants’ bias for home products. This paper provides a critical and comprehensive review of the related literature. Its main innovation is not based on empirical results but rather on an original interpretation of previous work, with an original focus on the pro-import effect of immigrants and on their impact on consumption in the host country, as most of the studies on the effects of immigration focus on production effects.

The analysis is put in historical perspective, mixing the most recent contributions in international economics with economic history, focusing on the pro-import effect of immigrants during the mass migration to the Americas, 1870–1913, a very favourable period to look at in order to uncover the pro-import effect of immigrants on import flows and on the consumption of the host country. Together they help drawing a complete framework within which we understand the reaction of the host country market to a migration inflow.

Keywords: Import trade, Migration, Gravity model, Home bias effect, Preference and network channels

Resumen

Existe un amplio consenso en economía sobre el impacto positivo de la migración en los flujos comerciales. Las estimaciones, basadas principalmente en el modelo gravitacional aumentado, suelen presentar una mayor elasticidad de los flujos de importación que de exportación. ¿Por qué los inmigrantes afectan más a las importaciones que a las exportaciones en el país de acogida?

Probablemente esto se deba a la coexistencia de dos fuerzas que fomentan el flujo de importaciones: el canal de preferencia y el canal de red, mientras que las exportaciones se benefician solo del último. Es técnicamente difícil desenredar los dos efectos, pero se sabe que hay "algo" que impacta más en las importaciones que en las exportaciones. Este "algo" parece ser el sesgo de los migrantes hacia los productos para el hogar. Este artículo proporciona una revisión crítica y completa de la literatura relacionada.

La principal innovación de este texto es el enfoque en el impacto de los inmigrantes sobre el consumo en el país de acogida, ya que la mayoría de los estudios sobre los efectos de la inmigración se centran en los efectos sobre la producción.

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El análisis se pone en perspectiva histórica, mezclando las contribuciones más recientes de la economía internacional con la historia económica, enfocándose en el efecto pro-importación de los inmigrantes durante la migración masiva a las Américas -1870-1913- un período muy favorable a considerar con el objetivo de descubrir el efecto pro-importaciones de los inmigrantes en los flujos de importación y en el consumo del país receptor. Juntos ayudan a definir un marco completo dentro del cual entendemos la reacción del mercado del país anfitrión a una afluencia migratoria.

Palabras clave: comercio de importación, migración, modelo gravitacional, efecto de sesgo en el hogar, canales de preferencia y de red

1. Introduction: On the Pro-Import Effect of Immigrants During Two Global Centuries

International trade and migration are two important dimensions of nowadays economy. Both phenomena are supported by constant technological progress, building an interconnected digital world, with decreasing transport costs and a relatively free flow of information. People, at least some of them, benefit from the possibility of international mobility. In 2019, international migrants were globally 272 million, 3.5% of the world population, three times more than in 1970, when they were 84 million, 2.3% of the world population (IOM 2020). Thus, the increase in international migration is evident over time, both numerically and proportionally.

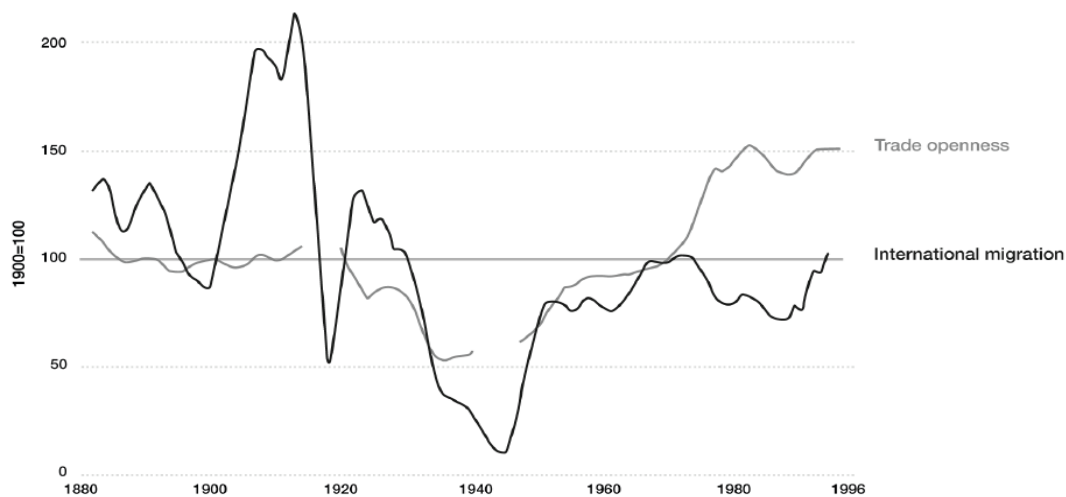
On the other hand, we observed an increase in international trade flows, which is more than proportionate with the GDP, as shown in the next chart: it plots the value of exports in goods relatively to the GDP (i.e., the value of merchandise trade as a share of the global economic output) in the period 1830–2008. At the beginning of the period, the sum of worldwide export flows accounted for less than 4% of the global output. It increased during the first wave of globalization (1870–1913) reaching up to 11.6%, fell in the interwar period and increased again after 1950, the beginning of the second and third wave of globalization that continues still nowadays. Today, the value of export flows around the world is close to 25% (Federico and Tena Junguito 2018).

Figure 1. Trade openness at the world level, 1830 2008, Export/GDP, Constant Prices.



Source: Federico and Tena Junguito (2018).

Flows of people and goods “moved largely in parallel in the decades leading up to World War I, collapsed during the interwar period, and then rebounded but with much more pronounced growth in trade than in immigration”(Jacks and Tang, 2018), as it is also shown in the graph below.

Figure 2. Migration flow and trade openness, 1830–1996 (index number 1913=100).

Source: Broadberry and O'Rourke (2010).

Nihil sub sole novum. If we look at the first wave of globalization (1870–1914), there are at least three similarities with the second and third waves of globalization (1950 until today). First, the dramatic technological changes that reduce both intercontinental and intracontinental transport costs through railroads expansion, telegraph cables and steamships in the United States, Europe, and elsewhere. Second, the period was one of liberal trade and large capital flows, and of world economy expansion. Third, mass migration. For the USA, “the late 19th century was not just a period of substantial international trade but of international factors mobility as well” (Irwin, 1996). Labour and capital movements from Europe to the New World increased enormously compared to previous periods.

Comparing the two global centuries (Williamson, 2005), we focus on a specific similarity: the relation between mass movements of people and the increase in international trade, and look at its impact on the host market. It is worth noting that the two phenomena are among the most criticized aspects of nowadays world. And neither this is new. We live in an age of “constrained mass migration”, and these constraints are largely political, rather than economic. Often, migrants are perceived as a threat to national economies.

Anti-immigrant public opinion in European countries is rising today: 52% of people in Europe think that immigration levels should be decreased (IOM, 2015). In a public opinion survey among the working class in the United States Midwest during the 1890s depression, 63% of the workers from Kansas thought immigration should be restricted, and in Michigan almost 62% of the owners of public conveyances thought immigration hurt their business through greater competition (Williamson, 2005). These anti-immigrant opinions were the reason to enact restrictions: the US Chinese Exclusion Act of 1882 parallels the *de facto* restrictions of the travel ban by the Trump Administration, which in 2020 prohibited issuing visas to citizens from several largely Muslim countries. Historical lessons are important to be learned, and this is why we think it is quite useful to study the migration-trade link in historical perspective in order to see if history repeats itself.

Social scientists extensively investigated the link between migration and trade, finding a positive impact of migrants in fostering international trade. We will focus on a specific aspect: the pro-import trade effect of migrants. According to Dunlevy and Hutchinson (1999), the first globalization is “especially propitious for the presence of the immigrant-based trade effects that we hope to uncover”. There is an extensive consensus in literature on the pro-trade effects of migrants, but many aspects have still to be explored. Focusing of the pro-import trade effect of migrants, we offer an innovative literature review. First, we present a critical literature review about the channels via which migrants decrease trade costs,

thus boosting imports. Secondly, we underline the increased variety of products generated by migrants in the host country. Both arguments are analysed in historical perspective, comparing the two waves of globalization. Presenting this literature review, we tried to answer several research questions: should the host country promote diversification in its immigration policy? What is the impact of migrants' connections to their home countries in term of imports flows? What is their impact on the host country: does the pro-import trade flow effect have negative consequences on the trade balance or is there a positive impact on the welfare of the host country? Policy implications are evident for the current debate about the economic consequences of immigration in the present as well as in the future.

In the next Section we present the theoretical approach, the mechanisms through which migrants could stimulate import trade, and empirical issues related to the estimation methods. In Section 3, we report the studies on the first wave of globalization in the Americas, presenting empirical studies, historical evidence, and descriptive statics to infer pro-import impact of migrants. Section 4 concludes.

2. Pro-Import Effect of Immigrants: A Framework

2.1 Trade and Migration: Substitutes or Complements?

Do immigrants complement international trade or, conversely, do they act as substitute of trade flows? This fundamental question occupies many pages in the international trade and factor mobility literature, different theories predict different outcomes, and the discussion is still open (Lund, 2009). It is important to briefly recall it, before moving closer to our subject.

Trade and immigration are substitutes according to the Factor Price Equalization Theorem, in the framework of the Heckscher-Ohlin (H-O) model. The theorem states that, subject to conditions, free international trade in goods leads to the prices of factors of production being the same in every country. A large wage gap between nations – due to the difference in labour endowment ratio – may induce migration, but if international trade equalizes factor returns, then reduced earnings differentials may discourage emigration. The opposite is also true: in the absence of any trade impediments, migration from a labour abundant country to a labour scarce country will continue until factor prices are equalized, and thus the commodity prices as well. Price equalisation removes the incentives for either trade or migration. When allowing factor movements between countries, the H-O model illustrates that international migration and trade are perfect substitutes (Mundell, 1956).

Of course, the theorem validity requires strict assumptions: transaction costs exist in the real world, and neither good nor factor prices will converge completely. Factor returns differ between countries and therefore induce international migration, as described in an imperfect competition framework by Norman and Venables (1995: 1489-1490, 1496). Whether factor movements or trade will take place – and if so in which direction – depends on international differences in factor rewards (ibidem: 1502). Hence, migration and trade could be either complements or substitutes depending on the prevailing assumptions and context, conclude Venables and Norman.

In a world with non-identical technologies or increasing returns to scale, it can be shown that international trade and migration flows are instead complements, states (Markusen, 1983: 341-342). In his model, with non-identical technologies and flows of both commodities and production factors, workers move to the country that exports the labour-intensive goods, whereas capital move in the opposite direction. Therefore, factor mobility led to an inflow of the factor used intensively in the production of a country's export sector and an outflow of the factor used intensively in the production of a country's imported goods. Then, countries tend to specialize in the production of the goods that use intensively the abundant factor of production, in line with the Rybczinski theorem.

2.2 The Pro-Trade Effect of Immigrants Trough the Augmented Gravity Model

In an international trade framework taking account of transport costs, market imperfections and

information asymmetries (Gould, 1994), the strong and positive correlation between migration and international trade has been widely documented for different countries, periods, and goods.

The international trade literature uses an augmented gravity equation to estimate the immigration elasticity of trade flows. The equation (1) below shows the classical Tinbergen's version of gravity equation, augmented for migration.

$$\ln(1 + X_{ijt}) = \ln G + a_1 \ln \ln(Y_{it} Y_{jt}) + a_2 \ln \ln(\text{Distance}_{ij}) + a_3 \text{Contiguity}_{ij} + a_4 \ln(\text{Immigrants}_{ijt}) + \varepsilon_{ij} \quad (1)$$

X_{ijt} is the amount of trade flow between a regional entity i and its international counterpart j , and it is positively associated with economic attractors, such as the GDPs (Y in equation 1) of i and j , and negatively associated with obstacles to international trade, such as geographical distance as a rough measure of transport costs. The dummy variable contiguity took the value of 1 if the countries share a border, because adjacent countries were assumed to have a more intense trade than what distance alone would predict. Finally, the equation is augmented with the stock of immigrants, that generally have a strong association with trade flow between host and home country. As customary, G is the constant variable, and ε_{ij} is a i.i.d. stochastic term. The model is expressed in a log-log form, so that the elasticity of the trade flow is constant with respect to the explanatory variables.

The literature has identified two possible channels via which migrants could stimulate trade flows: the network effect (Rauch, 2001) and the preference effect (Gould, 1994; White, 2007). The existing literature suggests that the relevance of these channels would be different for different types of products and for different types of immigrants or source-countries. Empirical literature has shown that these mechanisms usually work together (Head and Reis, 1998; Girma and Yu, 2002), though the network channel is stronger (Rauch, 1999; Herander and Saavedra, 2005). Even if the augmented gravity model is still the most reliable methodology to estimate the pro-trade effect of immigrants, there is a concrete evolution in the literature about migration and trade: the a first generation of studies uses country-level aggregated data to investigate the relationship between immigrants and international trade, and the second one employs disaggregated data, at geographical or product level (Lin, 2011). The latter body of studies presents higher elasticity of trade flows, as we will argue in paragraph 2.4.

In the table 1, we present some of the most relevant papers about the pro-trade effect of migrants and the elasticity of trade flows (some data for the elasticity: Bandyopadhyay, Coughlin, and Wall, 2008).

The seminal work by Gould (1994) gave origin to a new stream of research that is still flourishing. He did not use a gravity model approach, therefore results are not perfectly comparable with the vast majority of the following research, which uses a gravity equation framework and the estimated elasticities. Nevertheless, looking at the table, we can see that elasticity of import to migration often is equal or higher than that of export (Bratti, De Benedictis and Santoni, 2014). Knowledge of the home market may serve to increase both imports and exports, but preferences for home-country goods increases only imports. This table seems to confirm that the pro-trade effect of immigrants works through two channels: the preference for goods produced in their home countries and the reduction in information asymmetry, that is a reduction in transaction cost, or trade impediment. So, we can suppose that the stronger significance and magnitude of elasticity of import is due to a persistent difference in taste between immigrants and natives. Let us see in detail how the two mechanisms work.

Table 1. Pro-trade effect of immigrants: results in the literature

	Auhtors	Sample, Countries and Period	Export Elasticity	Import Elasticity
C o u n t r y L e v e l	Gould (1994)	Us and 47 Trade Partners, 1970-86	0.02	0.01
	Head and Reis (1998)	Canada and 136 Partners, 1980-92	0.1	0.31
	Dunlevy and Hutchinson (1999, 2002)	Us and 17 Partners, 1870-1910	0.08	0.29
	Girma and Yu (2002)	Uk and 48 Partners, 1981-1993	0.16	0.1
	Rauch and Trindade (2002)	64 Nations, 1980-1990	0.47	0.47
	Parsons (2009)	60 Nations	-0.023; 0.061	.
R e g i o n a l L e v e l	Combes <i>et al.</i> (2002)	95 French Departments, 1993	0.25	0.14
	Wagner <i>et al.</i> (2002)	5 Canadian Provinces and 160 Countries, 1992-1995	0.013	0.092
	Herander and Saavedra (2005)	US and 36 Countries, 1993-1996	0.126; 0.17	.
	Dunlevy (2006)	US and 87 Countries, 1990-1992	0.24; 0.47	.
	Bandyopadhyay <i>et al.</i> (2008)	50 US States With 29 countries, 1990-2000	0.14	.
	Briant <i>et al.</i> (2009)	93 French Departments, 1999-2001	0.094; 0.115	0.099; 0.12
	Peri and Requena (2010)	50 Spanish Provinces and 77 Countries, 1995-2008	0.049; 0.11	.
	Coughlin and Wall (2011)	48 US States With 29 countries, 1990-2000	0.192	.
Bratti <i>et al.</i> (2014)	107 Italian Provinces With 210 Countries, 2002-2009	0.121	0.347	

Source: own elaboration.

2.3 The Network Channel

Immigrants can reduce the fixed cost of exporting because of the language, and the specific knowledge of homeland institutions and norms. As Rauch (2001) and Rauch and Trindade (2002) argue, migration builds up business, and social networks across national borders can help alleviating problems related to contract enforcement and providing information about trading opportunities. Moreover, immigrant networks may provide contract enforcement through sanctions and exclusions, substituting for weak institutional rules and reducing trade costs. The famous paper by Rauch and Trindade (2002), interestingly one of the few papers studying a non-English speaking network, looks at the effect of ethnic Chinese networks on trade. It finds that there is a greater volume of bilateral trade between countries when there is a larger ethnic Chinese network. Along the network ties, knowledge spreads, deals are facilitated, and opportunistic behaviour is reduced, due to penalties like community sanctions (Rauch and Trindade, 2002). To shed light on the network effect, it is worth mentioning the work by Chaney (2014) on international trade as a network. In the network, information doesn't flow freely because of frictions, which may hinder international exchanges. We can think of a standard international transaction between a buyer and a seller who never met before, based in two different countries, with different cultures and languages. The further these two agents will be, in cultural terms, the stronger the information frictions will be, an obstacle that clearly is not accounted for neither by geographical distance nor by transportation costs. Through a very exhaustive literature review on ethnic networks and the patterns of international trade¹, Chaney (2014) underlines the positive role of migrant networks in reducing information frictions, and asymmetric information in particular. More specifically, Chaney

¹ For a comprehensive review of the pro-trade effect of immigration, see also Felbermayr *et al.* (2015), and Gaston and Nelson (2013).

considers as informal barriers the difficulty to acquire information about foreign products, as well as the differences in taste between domestic and foreign consumers, and the troubles in communication among traders when the trade deals with highly differentiated and customized intermediates.

Despite the consensus about the positive effect of the network channel on trade, there is less evidence about how this mechanism works. In order to build a good network to exchange relevant information between the two countries, personal relations could be more important than the number of people involved. Thus, immigrants' personal characteristics come to the forefront of the analysis, as they are likely to explain why they can participate in such exchanges. This is the conclusion by Head and Reis (1998), who consider three classes of immigrants and their heterogeneous impact on trade: independent immigrants have the largest influence on trade, refugees have the smallest, and families are in the middle. Refugees escape from war or persecution, and it is less likely that they build a business network with their home country. Independent immigrants tend to be more skilled than other immigrants: in Canada, for the considered period, they were selected according to a point system based on education, occupational demand, and other criteria. Similarly, Sangita (2013) concludes that highly educated immigrants are able to play a stronger role in the creation of these business network effects.

Last but not least, information frictions impact heterogeneously on products. Briant, Combes, and Lafourcade (2009) and Sangita (2013) present significant differences in the pro-import effect of immigrants on commodities, according to their level of complexity and heterogeneity². The idea, in line with Rauch (1999), is that in general information transferred by immigrants through their network matters more for the import of complex products, or of products on which information are rarer, since they are more depending than simple products on market information and pertaining services. The impact of immigrants on export flows is uniform among products, according to their level of complexity.

2.4 The Preference Channel

Immigrants are defined by different habits in consumption with respect to natives, and they may slowly modify their original home-biased demand after settling in the host country. The preference effect tends to be higher according to the immigrants' stock size, as it measures the market size of the host country for additional imports from their home country. If the stock size is relevant and their difference in taste matters, immigrants tend to constitute an ethnic market, as we suggest in the next paragraph. However, the preference effect is supposed to be decreasing over time, due to an import substitution with national production (Díaz-Alejandro, 1970) or a change in taste.

The presence of a big community of immigrants can constitute a niche in the host-country market, an ethnic market. The economic power of the niche depends on the number of potential customers, the immigrants' stock size, and also on the cultural distance between host and home countries. That is, if immigrants have strong preferences for home-country products, and host-country products are considered poor substitutes. Linguistically-bounded groups of immigrants can form niches for potential entrepreneurs, since language is one of the most common bases of ethnic distinctiveness (Edwards, 1984; Stevens and Swicegood, 1987). Thus, the larger the immigrant group, the greater the economic potential for an ethnic market, and their pro-trade effect.

In a meta-analysis of 24 articles from 1994 to 2009 about 184 estimates of the pro-trade effect of immigrants, Lin (2011) presents the estimates of a second generation of studies that using disaggregated data – geographic or at product level – tend to show a higher elasticity than for more aggregated data. This is because estimations better capture the geographic concentration of immigrants in a country, a big city or a region, or the fact that migrants prefer some products over others. Intuitively, the last conclusion, that is elasticity is higher if we observe data at disaggregated product level, corroborates

² Sangita's results speak about differentiated goods, opposedly to homogenous goods, as a "wide range of qualities and characteristics, which makes it difficult to create a formal method of dissemination of information regarding these goods".

the relevance of the preference channel on the pro-trade effect of migrants, because the preference effect gives off its strength on specific products. Looking at the past, there are several historical studies on the first globalization era presenting anecdotal evidence of the appearance of new products in the host country, brought by the preference for home products, such as olive oil or wine in Argentina (Ramon-Muñoz, 2009; Fernández, 2004). In the next paragraph, we present the most relevant empirical contribution on the preference channel, whereas in the next Section we present historical evidence of the preference channel of immigrants and the building of ethnic markets during the mass migration to America.

2.5 The Habit Consumption

The new wave of research employs micro-data to investigate the pro-trade effects of immigrants using the preference channel: these studies share the heterogeneous preference as basis. Preferences are heterogeneous at country level, for example between native and immigrants or among ethnic groups within one country, as well as at cross-country level, for the differences in taste.

One of these works is by Zhang (2020), who mixes a solid theoretical approach with a strong empirical design. His starting point is the home-biased taste of migrants, in line with Atkin (2013): the developing of taste is a habit, adults favour foods consumed as children, and the preferences acquired during childhood persist into adulthood. Thus, Zhang removes the restrictive assumption of the representative consumer, and replaces it with heterogeneous preference, to represent the preferences of migrants. Nevertheless, he considers that immigrants tend to be assimilated to the host-country consumption patterns over time, which is called the assimilation effect. Results change in magnitude but are still relevant. Indeed, he ran several exercises where the dependent variable is trade share (and not trade flow, commonly used in this literature), using disaggregated trade data for 35 sectors and migration flows among 40 countries: his findings confirm that the import share is significantly increasing with the increase of immigrants share of most ethnic groups.

If we look at the sectors, consumers have larger taste biases when buying agricultural products, while they are almost unbiased when buying services. Import share is more sensitive to immigrants share for final goods than for intermediate goods.

If we look at the ethnic groups, there are some migrants' communities with high home-biased preferences (the first three are Japanese, Chinese and Brazilians), and some others whose bias is very low or almost zero (the last three are Luxembourgers, Maltese, Belgians), but Zhang didn't offer an explanation for this ranking. A possible explanation comes from another result: the Indians are the most biased ethnic group in the agricultural sector. To quote Zhang, "this is consistent with what we usually observe, whereby Indian immigrants prefer Indian food even though they are usually highly educated and unbiased". Two decades before Zhang's paper, Head and Reis (1998) presented estimations of pro-trade effects of immigrants in Canada which were three times higher on imports than on exports. The authors explain this large difference in elasticities because of a heterogeneous effect connected to the migrants' place of origin. In particular, Asian immigrants who arrived in Canada after 1970 seem to impact the 1980–1992 import flows more than their European predecessors. They tested this hypothesis by interacting the immigrant variable with a regional dummy variable, and they found a wide variability in the coefficients according to migrants' place of origin: stocks of East-Asian and South-American immigrants have a higher elasticity than those of immigrants from other regions.

An important innovation of the Zhang's paper is the attempt to isolate the preference effect, through a network effect variable into the regression. This is an extension of the use by Rauch and Trindade (2002) and measures the probability that a randomly selected individual from each country will have a connection defined as the same country of origin. When the network effect is considered, results don't change it seems to have a not so relevant effect on the aggregate manufacturing import products.

According to Zhang, trade share is less sensitive to the network effect, contrarily to the trade flow, “partially offset by the total flows that is also affected by the network effect”.

Habit consumption as an explanatory variable of trade flows is found in several studies. Campbell (2010) presents a dynamic gravity equation model where tastes, and so trade flows, are determined by habit persistence, and trade patterns are stable across time, even centuries.

This literature is supported by empirical microeconomics studies, such as Naik and Moore (1996); Logan and Rhode (2008) and Atkin (2012), who all use data on food consumption to find empirical support to the proposition that past relative prices determine current tastes.

Atkin refined his research on habit consumption over time (2010, 2012, 2013). He uses microdata on food consumption in Indian regions in a general equilibrium model: he approaches the subject taking also into account nutrition and psychology literature, and shows the persistence of childhood habits in the consumption pattern of an adult. He concludes that a consumer tends to prefer a food product for which he or she has a habit preference that he or she derives from childhood, even if there is a cheaper or more caloric alternative. Atkin (2010) tests his hypothesis also for inter-state immigrants in India, who in his view are comparable to a “small economy opening to trade as they take their destination-state prices upon migration, yet maintain the preferences of their origin state”. His results show that immigrants households consume fewer calories for a given level of food expenditure, because they continue to buy favoured products from their country of origin that are relatively expensive where they now live. The home-bias effect abates over time and is larger when immigrants move to regions where their particularly favoured food is relatively expensive.

Bronnenberg, Dubé, and Gentzkow (2012) have studied the brand preferences of United States households and demonstrated how persistent habit consumptions are, over time and space. That is, a migrant doesn't change his or her preference for a particular brand adopted in his native country, once he or she moves to a new state: almost 40% of the geographic variation in market shares is attributable to persistent brand preferences. Assimilation of immigrants occurs, but slowly: it takes more than 20 years for half of the gap in market share to close, and even 50 years after moving the gap remains statistically significant. Another proof of the home-bias is found by Mazzolari and Neumark (2012), with their study on Californian welfare gains in connection to migration. Indeed, they infer³ that immigrants induce an increase of product diversity in restaurants and retail trade due to their preference for home products and also because of a comparative advantage in production of ethnic goods. Using a very rich and disaggregated dataset⁴, they find that an increase of 1% in the foreign-born share is associated with an increase in the share of ethnic restaurants between 0.18% and 0.44%. Of course, they control for changes in population and explicitly test for the increased variety that may arise from diversity in the population, in order to answer to the objection “size per se creates diversity” (Krugman, 1979). Concerning this latter argument, “size per se creates diversity”, it is worth to mention that if a specific group within a country is big enough and owns a bigger share of national income, this may divert international trade of the country. This is the thesis by (Markusen, 2013). He presents a model with identical but non-homothetic preferences and shows how the per-capita income has a stronger explicative power of some trade phenomena, such as growing skill premium, the mystery of the missing trade, home bias in consumption, etc. Thus, a per-capita income distribution in favour of a migrant's group big enough compared to the native, would be another determinant in changing the consumption side of the host country and reinforce the two other channels.

2.6 Product Diversity and Welfare Gains

Once immigrants spread their pro-import effect, new product varieties are available in the host market.

³ They infer the effects of immigration on product diversity from changes in the composition of employment and businesses.

⁴ The dataset includes an 8-digit SIC code that identifies restaurants of 15 different ethnicities.

Therefore, the increased diversity of goods may generate welfare improvements for natives who have relatively stronger preferences for ethnic goods. Indeed, via their preference effect, immigrants increase demand for ethnic goods in the host market. There is also a supply side-effect: the immigrants may have a comparative advantage in producing ethnic goods, hence increasing the supply of these goods.

There is a vast literature modelling and estimating the welfare gains from increased varieties of traded goods. The cornerstone is the seminal work by Krugman (1979), formalizing the love of product variety in international trade. On this basis, Broda and Weinstein (2006) estimate the magnitude of the welfare gain from new imported varieties for an entire economy, using the methodology developed by Feenstra (1994): an aggregated price index derived from a Constant Elasticity of Substitution (CES) utility function, which takes into account the import bias resulting from the omission of new and disappearing varieties. They use highly detailed product-level US import data and estimate that the import bias in the conventional import-price index over the 1972-2001 period was 28%, that is 2.6% of the US GDP as cumulated welfare gain from new imported varieties.

Here we focus on the potential benefits of immigration in terms of the increased variety of consumption choices in the host country. Despite there being many references of these “composition/variety” effects in the immigration literature and also anecdotal evidence in historical perspective (such as the appearance of new products in the Americas, due to the arrival of European immigrants, as we will discuss in Section 3), attempts to model or measure this outcome are very few (Mazzolari and Neumark, 2012), because of the identification problem. The paper by Mazzolari and Neumark (2012) is, at the best of our knowledge, one of the few articles that estimate the increase of product diversity induced by immigrants. It is built on the approach of Ottaviano and Peri (2007), a general equilibrium model for a small open economy made to study the concept of “consumption variety” effects among the economic benefits of immigration; and it focuses on a very small portion of the economy: the retail trade and the restaurant sector in California. Why do they focus on a so specific case study? Because “the immigrant inflows would only be expected to have effects on local markets for goods and services that are locally produced and non-traded ... the proportion of goods and services consumed by immigrants might be too small to affect the product demand curve for nationally-traded goods (‘traded’); and goods that are traded nationally may also be traded internationally, so immigration does not necessarily change the demand or supply of these goods. Regardless, our identification strategy focuses on local markets, and it is not clear how one would identify the effects on national markets” (Mazzolari and Neumark, 2012: 1108).

2.7 The Most Common Econometric Issues

The identification problems of the causal effect of immigrants on trade flows and the mistake connected to the specification model are known. In this Section, we focus specifically on the econometric issues of the augmented gravity model for migration. That is, we will ignore other and relevant problems of the classical gravity model⁵, such as the zero-trade flow problem at the left-side of the equation.

Bratti et al. (2014) underline the reason why a clear identification of the direct causal effect of immigrants on trade flows is not as easy as it might appear. There are problems of reverse causality, inherent to the fact that immigrants generally move to countries where formal or informal links were already established and where trade with their homeland was already pre-existent.

Furthermore, common determinants, some of them unobservable, can affect both migration and trade at the same time. Specific characteristics at the country-of-origin level, at the trading-pair level, and at the local level in the host country, if not considered in the analysis, can significantly bias the immigration elasticity of trade flows. Baldwin and Taglioni (2006) assign a “gold medal mistake” award to gravity model studies omitting variables and overestimating the results⁶. A functional form with omitted

5 For an overview, see De Benedictis and Taglioni (2011), and Head and Mayer (2014).

6 In this peculiar competition, the silver medal is awarded to the studies that use the log of the trade-flow average

variables presents upward results because they capture forces promoting both trade and immigration levels, such as historical, political and cultural ties, too complex to be captured using variables common to the gravity model literature.

According to Parsons (2012), the vast majority of the pertaining literature overestimates the pro-trade effect of migrants because it doesn't use country-pair fixed effects (thus ignoring bilateral ties) and doesn't consider bilateral migration stocks.

Concerning the first point, Parsons states that international trade is driven by idiosyncratic ties among countries. He presents a centre/periphery framework, in which the rich northern countries export more differentiated products while the South export homogenous commodities more often. Immigrants from both regions only affect northern exports to the South. Intuitively, the Parsons' argument is exactly the opposite of the one offered by Briant, Combes, and Lafourcade (2009), whose results show a stronger pro-trade impact of immigrants coming from a country with weak institutions. Doubling the stock of immigrants from countries with the weakest institutions increases trade flows by 10 to 12%. Conversely, the impact of immigrants is barely significant for countries with good institutions.

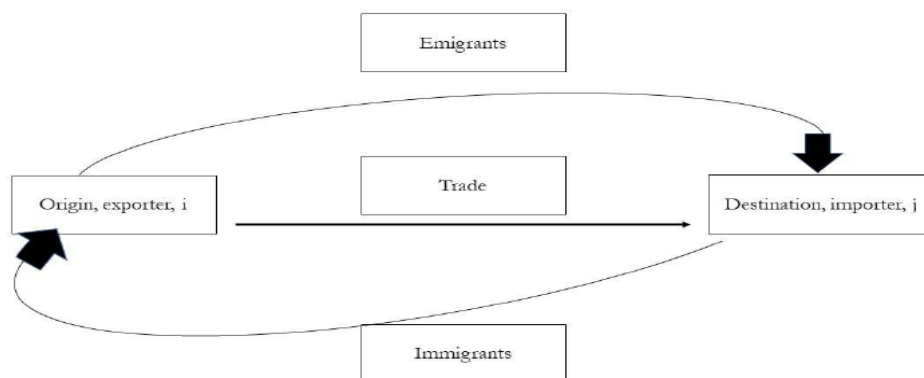
The solution to the endogeneity threat, in line with previous works (Peri and Requena-Silvente, 2010; Bandyopadhyay, Coughlin, and Wall, 2008; Felbermayr and Jung, 2009), is to use trading-pair fixed effects. The country-pair fixed effects control for international bilateral ties and more in general for commonly omitted multilateral resistance terms, as well as any influence of migration among third countries on the trade between the pair countries. Using panel data, the common solution is to use country-year fixed effects.

The second argument by Parsons, in line with Hatzigeorgiou (2010), deals with the relevance of considering bilateral migration: for a given year, he regresses import flow, upon bilateral migration, and , and on a vector of country-pair control variables, , as shown in the equation (2) below.

$$(2) \ln(M_{ij}) = \alpha_0 + \beta_1 \ln \ln (MIG_{ji}) + \gamma_1 \ln \ln (MIG_{ij}) + \delta' Z_{ij} + \varepsilon_{ij}$$

The figure below presents the intuition. The idea is that if emigrants from country i living in country j foster trade flows from the host country j to the home country i , (that is $\gamma_1 > 0$), then it must be through the information channel, since the preference channel cannot operate against the direction of trade. However, if $\beta_1 > 0$, this is hypothesized to capture both preference and transaction cost effects.

Figure 3. The relevance of bilateral migration.



Source: own elaboration based on Hatzigeorgiou (2010).

as opposed to the average of their logs, whereas the bronze medal is for the deflation of nominal values through the US price index.

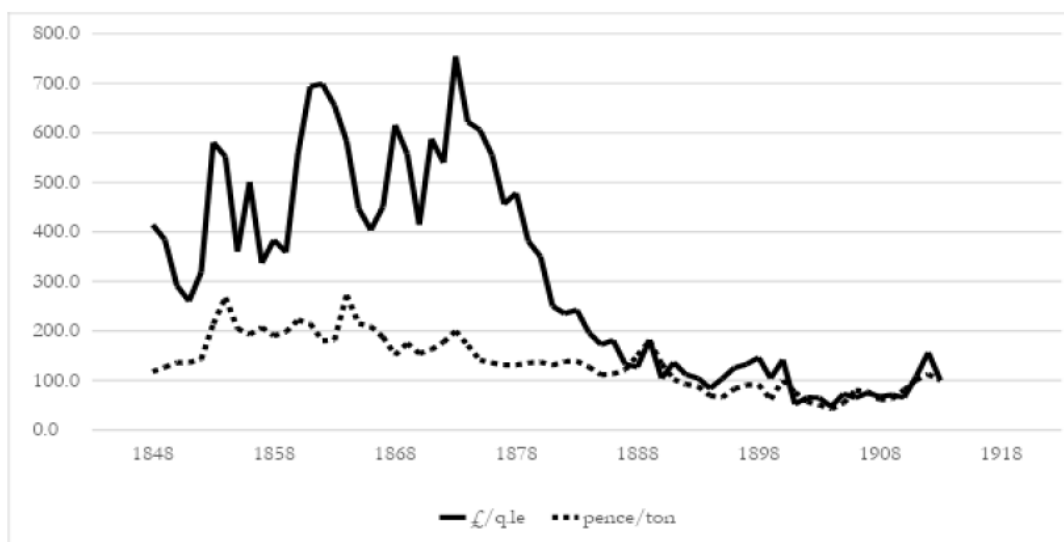
One last econometric issue is the classical reverse causality problem: do immigrants foster international trade, or does international trade generate migration? The common solution is the instrumental variable approach. The instruments used in the literature are many. Among them, Hatzigeorgiou (2010) uses the passport costs, because its cost may influence migration decisions without fostering trade flows⁷; Steingress (2018) uses the exogenous allocation of political refugees within the US refugee resettlement program, that prevents immigrants from choosing their destination. Nevertheless, there is sufficient evidence about the causality of migration on trade. Felbermayr and Jung (2009) find that causality runs from migration to trade following a regression-based F-test of strict exogeneity; Peri and Requena-Silvente (2010) exploit historical immigrant enclaves as instruments for nowadays migration and find robust evidence of the causal effect of immigrants on export flows in Spanish provinces.

3. The Impact of Migration on Import Trade. Evidence From History

3.1. Mass Migration to the Americas. A case of Complementarity Between Migration and Trade

During the first wave of globalization, migration and trade grew together, and “endogenous frontier models, which apply to settler economies like Argentina and the United States in the 19th century, are more likely to predict complementarity between trade and factor mobility and not substitution” (Jacks and Tang, 2018: 17). The first wave of globalization coincides with the largest seaborne migration in human history (Nugent, 1997). This period, called the mass migration era, is a profound shift in global population and economic activity. Thus, it is a very promising environment for those who want to explore the pro-import effects of immigrants. Technological change from sailing vessels to safer and faster steamships steadily and strongly decreased transport costs (as shown in the figure below), and accelerated the movement of people across the Atlantic.

Figure 4. Transoceanic transport costs, 1848-1913, 1913=100.



Source: Federico and Tena Junguito 2016.

During this period, about 38 million Europeans (predominately male and travelling alone) sought new lives in North and South America. All these territories have a common feature: abundance of land and scarcity of labour and capital (Sánchez-Alonso, 2019). The table 1.2 shows the immigration rates in American countries by decades.

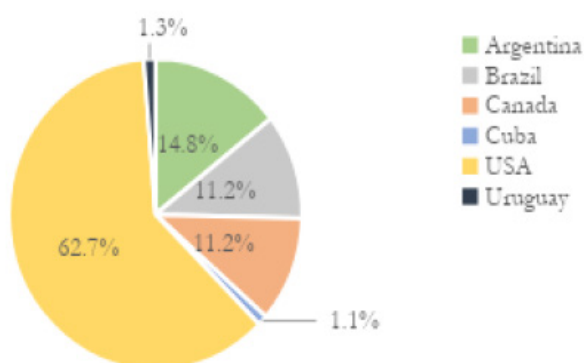
⁷ The idea of passport cost comes from McKenzie (2007): he investigates the impact of passport costs and legal barrier to emigration in a sample of 127 countries and finds that high passport costs are associated with lower levels of migration.

Table 2. New world immigration rates (%) by decade (per thousand population).

	1861-70	1871-80	1881-90	1891-1900	1901-10
Argentina	99.1	117	221.7	163.9	291.8
Brazil		20.4	41.1	72.3	33.4
Cuba					118.4
Uruguay			118.3	88	123.3
Australia	122.2	100.4	146.9	7.3	9.9
Canada	83.2	54.8	78.4	48.8	167.6
US	64.9	54.6	85.8	53	102

Source: Sánchez-Alonso (2019).

Looking at the numbers, it is useful keeping in mind that immigration was encouraged throughout the period 1870–1914, but with a fundamental difference. South American countries, mainly Argentina and Brazil, offered subsidies to immigrants, whereas the US did not, and usually barred any migrant whose passage was known to have been paid by a business interest (Balderas and Greenwood, 2010). Nevertheless, the US were the main destination for European immigrants, with almost 23 million immigrants, and their share over the total flow to the America is relatively stable, around 62.7% of all immigrant flows. At national level, the share of immigrants over the whole population peaked at 14%, even higher than today’s record of 13.7% (Abramitzky and Boustan, 2017). Compared to other New World destinations, a distinctive characteristic of United States immigration was its diversity (Nugent, 1997): every migrating group was present, with but a small presence of Spaniards and Portuguese among the major migrating nationalities, since most of them preferred Latin-American destinations. At the same time, the United States international trade increased of a factor four: moving from \$835.8 million in 1870 to \$3,614 million in 1910 (in 1913 dollars).

Figure 5. Share of immigrants by countries of destination, 1870-1913.

Note: data for Cuba refer to the period 1902–1913.

Source: ‘DEMIG (2015) DEMIG TOTAL, Version 1.5. Oxford: International Migration Institute, University of Oxford’ n.d.; Willcox 1929.

The main driver of migration was the economic fundamentals, such as a higher relative wage in the Americas compared to that of several European countries, higher demands for unskilled labour and

liberal immigration policies in the New World economies, low cost of passenger transportation and the heritage of the colonial link (Hatton and Williamson, 1998; Magee and Thompson, 2010).

This huge amount of immigrants, combined with foreign capital inflow and the improvement of infrastructure (such as railway network), deeply change the factor endowments of the settler economies in the New World, that were both labour and capital scarce and land abundant. And, consequently, these countries change their specialization pattern, such as in the case of some Latin American countries that move to labour-intensive activities (Kuntz-Ficker, 2017). The integration of the world economy put in competition the European agriculture, especially of southern European countries, with the New World's primary producers. The former could not compete with the latter, and in the late 19th century it fell in a period of depression and structural crisis, which contributed to the European mass migration.

Latin America, since 1870, received a massive flow of European immigrants, of which more than 90% were directed to Argentina, Brazil, Uruguay, or Cuba. The peak of the arrivals curve was around 1900–1914, with a modest revival in 1920, except for Cuba. Argentina had the strongest power of attraction: since the mid-19th century until 1930, approximately four million Europeans settled in Argentina, some two million in Brazil, and slightly fewer than 600,000 in Cuba and Uruguay (Sánchez-Alonzo, 1974: 129). In 1910–1914, foreigners represented 14.5% of the total population in the United States and around 30% in Argentina. At first glance, immigrants could have been more significant for the development of Argentina than of the US.

In Argentina, differently than in the US, immigrants predominantly came from Southern Europe, and the composition by nationality remained stable over time. Language and cultural affinity are key factors to explain this persistence. Immigrants to South America were more likely to come from Romance language countries, while those from the British Isles favoured North America (Chiswick and Hatton, 2003). Moreover, Spaniards and Portuguese, selecting Latin American destinations, enjoyed advantages from old colonial links. “The colonial ties and the complex, long-standing trade and merchants’ relationships of Portuguese with Brazil and Spaniards with Cuba” were an asset to succeed in the commercial sector and explain the reason why immigrants gathered in commercial cities such as Rio de Janeiro or Havana rather than in the rural areas (Sánchez-Alonso, 2019).

Immigration policies in Latin America raised fewer barriers to European immigration and offered rights of residence and commerce, comparable to those enjoyed by natives. Migration was promoted not only to increase the labour supply, limited by the scarcity of native population, but also to offset the abolition of slavery, and to “improve” the Latin American society as well: some governments thought that immigration of culturally “superior” Europeans would contribute to economic and social modernization (Sánchez-Alonso, 2019).

Argentina subsidized migration for a short period of time (1887–1889), whereas Brazil continued subsidizing European immigration until the late 1920s, through tax revenues on coffee exports. From 1892 to 1930, the government of São Paulo spent one tenth of the tax revenue received from coffee exports (de Carvalho Filho and Colistete, 2010): this shows the strict relationship between international trade and international migration in Brazil. Uruguay did not actively promote immigration, which was largely spontaneous (Goebel, 2010).

The end of the mass migration era coincides with the beginning of World War I in Europe, and is linked to endogenous reasons in the host countries. Governments in the host countries realized that they could no longer absorb massive migration, and consequently changed their legislation: the United States adopted a national-origin quota system in 1921, Argentina introduced restrictive legislation in 1927, Brazil in 1931.

3.2. The Delayed Migration Puzzle

Migration to the Americas changed over time, its origin being first Northern and Central Europe, then Southern and Eastern Europe. In economic history literature, this shift in the composition of immigrants

is known as the delayed migration puzzle: why did southern Europeans move later to the United States in comparison with immigrants from other European countries, even if their relative wage was lower?

The most accepted explanation is by Hatton and Williamson (1994; 1998) and concerns an “emigration life cycle”, a sort of step forward on the development path. In order to generate a mass migration flow, a country needs to reach a threshold of development, before which it had liquidity constraints impeding that flow. In this view, mass migration was driven by modern development itself: demographic transition, urbanization, and industrialization encouraged migrants to leave their home countries, attracted by a higher relative wage in the destination countries.

An empirical proof of this theory is presented by (Clemens and Mendola, 2020), in a recent study on determinants of migration from developing countries. The scholars, thanks to a rich data set with pre-migration micro-data on migrants, show that in low-income countries, people actively preparing to emigrate have 30 percent higher incomes than others overall, and they are positively selected on observed variables, such as schooling. Furthermore, in poor countries, rising incomes at the household level and the national level are associated with a rising propensity to migrate.

Another answer to the delayed migration puzzle looks deeper into the pull factor of growing immigrants stocks and into the “diffusion hypothesis”, that is migration in one place induce migration in the surroundings (Gould, 1980; Bean, Telles and Lowell, 1987; Baines, 1995; Moya, 1998; Spitzer and Zimran, 2020). Places that had a potential for mass emigration needed more time to build up the network for the people to move across space, but in the end they did and produced mass migration waves as well.

In a comparative analysis of European migration to Argentina, Brazil, and the US, Balderas and Greenwood (2010) argue that European immigrants had a tendency to gather in places where earlier immigrants had already settled, thus reducing information frictions as well as the cost of a long-distance international transfer, by providing information, subsidizing travel, and assisting the new immigrants with social and cultural adjustments in their country of destination. This debate exceeds the goal of our work, nevertheless it is worth mentioning that both hypotheses recognize the role of the network effect in reducing information frictions between countries and in stimulating the push and pull factors.

In the framework of this puzzle, it is worth mentioning the “paradoxical case of Spain” (Sánchez-Alonso, 2000). Why is Spain’s emigration rate lower than Italy’s in the 1880s and 1890s, the roughest years of the agrarian depression? Why does Spanish emigration accelerate only in the early 20th century? A frequent explanation is the trade policy adopted by Spain to protect the national production of wheat. Sánchez-Alonso (2000: 309) disagrees: “the wheat tariff exercised a positive impact on labour emigration, rather than a negative one. Within a Heckscher-Ohlin model, tariffs increased impediments to trade and stimulated the international mobility of the relatively abundant factor which in the Spanish economy was labour”. She argues that the main obstacle was the depreciation of the peseta, the Spanish currency: for the income-constrained emigrants, a depreciated currency increased the costs of moving.

3.3. The Impact of Immigrants in the Host Country

According to Chiswick (2000), immigrants are usually more capable and more highly motivated than the native population, and use information and knowledge of the home market to build a new business network in the host country: this network should reinforce the ethnic market, home-bias preferences and the increase in product variety.

Immigrants to America formed a new entrepreneurial class: they did so in Argentina (Germani and Graciarena, 1955) and more in general in Latin America, where European immigrants were over-represented among owners of industrial and commercial firms (Sánchez-Alonso 2019). This higher devotion to entrepreneurship seems due to a positive selection: immigrants to Latin America had higher literacy levels than the native populations (Rocha, Ferraz and Soares 2017). In 1895, the illiteracy rate in Argentina was at 38% among foreigners and at 61% among natives. In São Paulo, Brazil, immigrants’ skills and literacy levels in 1920 were above those of native workers: 34% of immigrants were illiterate,

whereas the native-born illiterates were 73% (Klein, 1996). In the US, immigrants were positively selected from some European countries, and negatively selected from others, “with differences in selection lining up with differences in the relative returns to skill across sending countries” (Abramitzky and Boustan, 2017).

The migration data for Latin America support the idea that immigrants were positively selected, thus being more prone to support the development of business networks. 19th-century Uruguay is a clear example of the immigrants’ contribution in building up a new business class (Millot and Bertino, 1996). As a national popular proverb states: “Los mexicanos descenden de los aztecas, los peruanos de los incas y los uruguayos de los barcos”. In 1860, immigrants take 33.9% of the entire country population and 48.9% of the population in Montevideo, the nation capital, the country’s economic epicentre and second most relevant port on the River Plate. The relevance of immigrants was stronger than what numbers can show, especially because immigrants are mainly young people leading an active working life: in 1889, in Montevideo, 72% of men older than 15 were foreign-born, 85% of the factory owners were foreign-born, and 62% of the workers in those factories were immigrants. In 1908, 60% of the factory owners were foreign-born and 38% of the workers were immigrants as well. In 1844, in Montevideo, the first Italian trade agency was established, the Italian Bank of Uruguay ran its activities between 1883 and 1907, and there were plenty of Italian organizations of any kind (hospitals, cultural activities, entertainment, mutual aid society, etc.). Their presence deeply transformed the way of life, as we discuss in the next Section.

The other side of the immigrants’ impact on the host country is through the preference channel. Zamagni (1993: 123) observed that between 1886 and 1913, Italian exports share to the United States and the rest of America increased by 5.8% and 7.9% respectively. She argued that the growth of Italian exports to Argentina and the US prior to 1913 could be partly explained “by the massive presence of Italian immigrants in these countries, who were unable to live without their traditional goods which, until produced by the host country or the immigrants themselves, were imported from Italy” (Zamagni, 1993: 125). Similarly, Giannetti, Federico, and Toninelli (1994: 504) state that Italian food firms “began to export rather early (before World War I), often aiming for the Italian population abroad, e.g. the cases of Bertolli (olive oil), Buitoni (pasta) and, to a lesser extent, Gancia (sparkling wines)”. Such is the power of nostalgia (Vázquez-Medina and Medina, 2015), one of the strongest engines to activate the pro-import effect of immigrants in the host country, even though it decreases over time, due to assimilation.

The next Section is a selective review of the historical evidence and is devoted to shed light on the pro-import effects of immigrants (both via the preference and the information channel, reinforced by the appearance of new business networks in the host country) and on the increase in product variety due to the home-bias preferences of the immigrants.

3.4. The Pro-Import Effect of Immigrants and the Increase in Product Variety: Historical Evidence

The pro-import effect of immigrants in the Americas is supported by many historical evidences: John Brown recognized the role of European ethnic enclaves in the Americas as a source of demand for European finished cotton cloth, since “they identified with fashion in the home country and had a similar language” (Brown, 1995: 511); Fernández (2004: 70-76) observed that in Argentina, before World War I, there was correlation between series of imports and immigration from both Spain and Italy.

Unfortunately, there aren’t many econometrics exercises devoted to this subject, mainly because of a lack of data. The main studies are for the two largest destination countries for European emigrants, Argentina and the US.

Dunlevy and Hutchinson (1999; 2001) mixed a historical perspective and a cliometrics approach, in order to analyse the pro-trade effect, both on import and export flows, of immigrants to the United States

between 1870 and 1910. They confirm the higher elasticity of the United States import over export flow (as shown in table 1). Here we focus on their 1999 paper, a pioneer work on the pro-import effect in which they used a migration augmented gravity model. Among the explanatory variables, they put relative income: this is quite interesting, because, being based on a dataset of 78 commodities, it allows us to test the Linder taste effect. That is, a country with similar per-capita incomes produces similar, but differentiated products that constitute the basis of intra-industry trade. As expected, the Linder Hypothesis is confirmed: imports were greater from countries that had similar per-capita incomes than the US's. Within the regional group estimations, Dunlevy and Hutchinson sorted the countries in three regions: Old Europe, New Europe and Non-Europe⁸. Surprisingly, the coefficient for the New Europe was negative and significant: its emigrants' tastes were expected to differ more sharply from native-born Americans', who themselves were largely of the Old-Europe stock. The authors offered several hypotheses to explain the curious absence of the pro-trade effect for these New-Europe emigrants. The most important ones were connected to the migrants' horizon of expectation: Old-Europe emigrants had been settlers with a long-term perspective in the host country, whereas the new immigrants were only able to have a shorter horizon, thus being limited in the development of ties that could promote imports. Another explanation dealt with economic features of their home country: migrants from Portugal and Italy came mainly from areas – the Azores and the Mezzogiorno – where it was not yet possible to suitably produce export goods. Estimates by year show a pro-trade effect such as an inverted U-shaped curve, that is positive, strong for most of the period, and declining by the end. These results confirm the hypothesis that earlier migrants from the Old Europe had a stronger pro-trade effect than the New Europe's. The results for commodity groups are very interesting, because the pro-trade effect agrees with the complexity level of the imported commodities. Dunlevy and Hutchinson find that the migrants stock had positive and significant effects on the more complex product groups, such as Processed Foodstuffs and Manufactures for Consumption, confirming the taste hypothesis. Furthermore, migrants stock has a pro-trade effect on semi-manufactured products as well, according to the transaction and information linkages hypothesis. For the same period, Jacks (2005) uses similar data to Dunlevy and Hutchinson's, but presents a radically different conclusion. In the pre-World-War-I US economy, according to him, there is no “condition of complementarity but rather one of neutrality between trade and migration”, and it is impossible to empirically validate the connection between the impact of immigration upon trade with the immigrants' country of origin.

Among the historical studies on Latina America, Brown (1995) states that 19th-century European “colonists forming ethnic enclaves in countries such as Brazil were a ready source of demand [for imported printed cotton cloth] since they identified with the fashion in their home country and had a similar language.” Cottrell (1975) observes that southern European immigrants were instrumental in the establishment of local consumer-goods industries in Latin America after 1890. Díaz-Alejandro (1970) writes similarly on pre-World-War-I Argentina: “There are many examples of immigrant merchants, especially in the import business, gradually becoming manufacturing entrepreneurs using their commercial profits.” Even in Chile, between 1880 and 1930, the Italian community had an important role in the birth of the national industry and – for what we are interested in – in the change of the Chileans' habit consumption, with pasta such as Carozzi's or Lucchetti's (*Inmigración italiana a Chile (1880-1930) - Memoria Chilena* n.d.).

On Argentina, the main studies are by Alejandro Fernández (Fernández and Lluch, 2008; Fernández 2004; 2000). In his fundamental “Un mercado étnico en el Plata”, he sheds light on the crucial role played by ethnic commercial networks in changing Argentines' consumption patterns, with the introduction of new products and the pro-import effect of the two main groups of immigrants: Spaniards and Italians. Italians had been the first to arrive in mass (Devoto 2006), and thanks to their older and

⁸ Old Europe: Belgium, Denmark, France, Germany, Netherlands, Sweden, and the United Kingdom; New Europe: Austria, Italy, Portugal, Spain, and Russia; Non-Europe: Brazil, Canada, Japan, Mexico, and China.

denser network, they enjoyed higher earnings (Sánchez-Alonso, 2018). Fernández (2004) compared the two communities, built up a data set of imports and immigration flows from Italy and Spain to Argentina, and analysed qualitative information from consulates, chambers of commerce, company archives, etc. His evidence⁹ confirm the key contribution by Italian and Spanish trade agents and distributors to the increase in imports – such as textiles – given their superior knowledge of the market; also, to the home-biased preference of immigrants. For the Italians, the effect is more pronounced between 1880 and 1900, for the Spaniards in the decade before World War I. In the 1920s, when Spaniards reached the peak of their presence in the country, the correlation is less significant. At product level, Fernández shows that Italy and Spain exported products for which they had a comparative advantage, namely labour-intensive agri-food products, such as canned tomatoes and fish, rice, spices, dried fruits, cider, and olive oil. The last item presents a close-to-unity correlation with the stock of immigrants.

At product level, there are some studies on the increasing demand for new products during the first globalization in the Americas, such as wine (Pinilla and Ayuda, 2007; Pinilla and Serrano, 2008) or olive oil. Olive oil is a paradigmatic case of positive correlation between the stock of Southern Europe immigrants and the increase in import. Olive oil is the focus of the studies by Ramon-Muñoz (2009; 2010), another cornerstone research on the pro-import effect during the first globalization. Ramon-Muñoz retraces the formation of the olive oil market in the America between 1850 and 1913. The phenomenon is directly associated with the inflow of more than 13 million southern European immigrants to the Americas, due to their commercial networks and home-biased preference. Namely, his quote of the International Institute of Agriculture confirms the role of preference in shaping the olive market in the American countries: “Olive oil imports for edible purposes found their origins in the former immigrations of Latin people ... who were accustomed to a high consumption of olive oil in their home country” (Ramon-Muñoz, 2009: 10). Spaniards and Italians buy olive oil and each group prefers its own national olive oil: in 1913, the Spanish vice-consul in Florida, US wrote that “spanish olive oil suffer[ed] a great competition from the Italian one ... due to the consumption of the large Italian community”. Instead, the Italian consul in Rosario de Santa Fe, Argentina lamented the increased market share of the Spanish olive oil firms in Argentina, due to “an increase in the Spanish emigration, which favours the consumption of Spanish products”. He finds a strong and positive effect: a 10% increase in the immigrants stock is associated with an 8.2% increase in olive oil trade between the southern European producers and their American partner. The effect has varied over time, with a strong and positive correlation during the last quarter of the 19th century, when southern Europeans began to emigrate massively; this correlation declined after World War I and was again positive and relatively high (around 6%) by 1930.

Ramon-Muñoz (2009) demonstrates the key-role played by immigrants in stimulating trade between host and home country. He then rejects the absorption hypothesis, because of a “weak Americanisation of tastes and consumption patterns” among the southern European immigrants in the field of the edible oleaginous products. Furthermore, he proves the absence of import substitution process: during the considered period, the olive oil consumed in the New World was mostly imported from the immigrants’ host countries, and part of this import trade was carried out by firms belonging to former southern European immigrants. Lastly, he finds a persistent effect: the migration-trade nexus tends to decline at a small rate over time.

In conclusion, the olive oil trade in the Americas in this period is clear proof of the pro-import effect of immigrants, as well as of the two transmission channels and of the increase in product variety.

The persistence in habit consumption is also confirmed by the experience of Northern Italian emigrants established in North America before 1914 (Corti, 1997), some of whom attested to a case of partial continuity in their food habits, especially temporary immigrants. Concerning Southern Italian

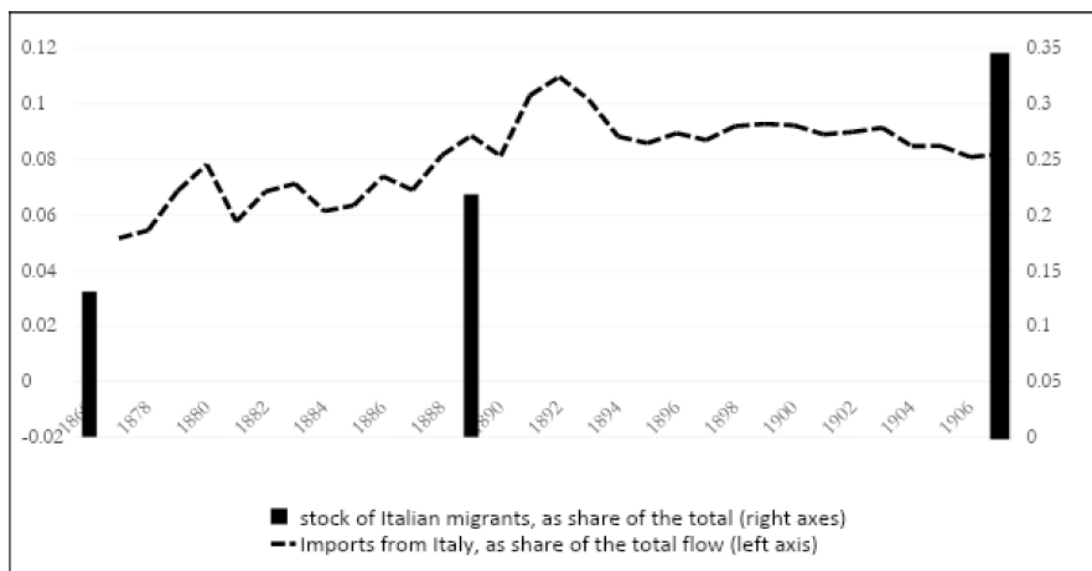
⁹ He didn’t use an econometric approach and so he didn’t establish a causal relation, but just a correlation between immigrants and trade flows.

immigrants in Argentina, Brazil and the United States, a change in habit consumption and a relaxation of the migrant-trade link are documented by Bevilacqua (1981), before World War I changed their food tastes and improved the quality of their diets, through the introduction of meat.

This is true for olive oil, that had no actual nationally-produced substitute in the host countries, but the opposite is observed for other products, namely wine in Argentina, where the imports fell from 91.4 to 38.9 million litres respectively in 1888–1890 and 1911–1913 (Fernández, 2004: Appendix 3).

The import substitution activity is also observed in Uruguay (Beretta Curi, 2004; 2014), where the role of migrants in the industrialization process is significant, and at the same time Italian immigrants were committed to representing Italian firms (namely important ones such as Fiat, Fratelli Branca, and SME) and were involved in the import trade of Italian goods (wines, furniture, manufactured glass, metallic products, machines for the agro-food industry). According to Beretta Curi, a part of the Italian entrepreneurship in Uruguay shifted from an import trade of industrial products to a national production of the same products, in a import substitution strategy that would confirm the idea of a decreasing pro-import effect of migrants over time. It is worth noting that, despite the predominance of UK and France in the import trade, Italian imports share steadily increased over time (and peaked at 11% in 1892), supported by the well-organized Italian business network in the country, as shown in the figure below.

Figure 6. Italian way of life in Uruguay, 1860–1907.



Source: Censo de Uruguay (1860, 1889, 1907) and Anuarios Estadísticos del Uruguay (page 562-563 del anuario de 1904 a 1906 Tomo I)

Also, the French community, though smaller than the Italian and Spanish ones, contributed to an increase in the import trade of French products, called *parisienses* (Duprey, 1952). The lack of data made it impossible to run cliometrics exercises on the pro-trade effect of immigrants in Uruguay, but it is worth mentioning here the promising research project lead by the Social Sciences Department, University of the Republic of Uruguay, aiming to reconstruct historical series of import flows, by products, between 1870 and 1913¹⁰.

10 Part of it was presented at the VI Uruguayan Conference on Economic History (December 2-4, 2015) at the table: “MOxLAD: New and better estimates of relevant variables on the economic history of Latin America” under the title: data “Foreign trade of Uruguay: 1870-1913” by Nicolás Bonino-Galloso (IEcon-FCCEEA) and Sabrina Sinisclachi (BD-FCS) for Banco de Data from the Faculty of Social Sciences, Area of Economics and Economic History - March 2016. Description of the project: <https://www.cienciassociales.edu.uy/wp-content/uploads/2019/12/NotaBaseComercioExterior.pdf>

4. Conclusions

Having looked at these contributions, it is useful to make some concluding remarks. In a framework of international trade with market imperfections, information asymmetries, and trade costs, trade and migration are complements. Migrants may exercise a positive impact on trade flows, via preference channel and network channel. And the First Globalization represents the first historical case in which the pro-trade effect of immigrant releases all its potential, because of the mass migration movements. The motto ‘Trade follows the flag’, to indicate the power of colonies in promote the mother country’ trade, should be update in ‘Trade follows the immigrants’ during the studied period.

Furthermore, beyond the overall increase in trade flows, the empirical evidences shows that immigrants tend to exert a stronger effect on the import trade of the host country, because imports benefits both of preference and network channels. The presence of migrants increases the available-product variety (olive oil effect) in the host country, and consequently creates welfare gains in the host market. Even if the pro-import- effect decreases over time (because of assimilation in tastes and import substitution strategy) the increase in product variety is stable over time, such as the example of ethnic restaurant in Mazzolari and Neumark (2012) or the change in consumption pattern in Latin American countries during the First Globalization mentioned above.

To conclude, the increase in immigrants’ inflows benefits both the host and the home country trade. In particular, the higher elasticity for imports benefits of course the trade balance of the home country but the host country as well, because of the welfare gains due to the increase in product variety, and also because of immigrants tends to have higher devotion to entrepreneurship because of positive selection and exert it via which the network channel.

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