

The link between immigration and trade in the Spanish regions

José V. Blanes*

Joan A. Martín-Montaner**

Guadalupe Serrano***

First version. Please do not quote

Key words: International Trade, Migration.

JEL Classification: F10, F22

* Universidad Pablo de Olavide; ** Universitat Jaume I; *** Universitat de València-
Estudi General

I. INTRODUCTION

The economic consequences of immigration on the host countries have led to a huge amount of literature in recent years. Although most economic studies have focused on the effects of immigration on the welfare state and on labour markets, literature has also focus on another relevant aspect of immigration: the link between immigrant population and bilateral home and host immigrant's countries trade. However, most of the previous research on this topic is focused at the country level and very few papers had addressed to its regional dimension. Immigrants' distribution both with respect to individual and national characteristics among the regions of a country may show differences. Moreover, different regions may present different characteristics that may affect the way immigration affects trade and the size of such an effect. Hence, regional level analysis could provide researches with relevant information that can help to better understand the link between immigration and bilateral trade. This paper is an attempt to increase the - still scarce - empirical evidence about this subject by analysing the case of the Spanish regions.

Immigration can influence trade flows through two basic channels: first, immigrants bring with them a preference for home-country products and, second, immigration can reduce trading transaction costs. This second channel is twofold: in one side, immigration can create networks - knowledge of home-country markets and business contacts - and, in the other side, cultural ties - as common languages, historical colonial ties, common preferences, knowledge of political and social institutions - can reduce trading transaction costs. The existing literature suggests that the relevance of these channels would be different for different types of products and for

different types of immigrants / source-countries. Those differences can allow us to identify the mechanisms behind the link between immigration and trade.

We think that the Spanish economy is a useful case to analyse this topic. Immigration is a recent phenomenon in Spain but it has increased very fast in recent years. The Spanish economy has experienced in the last years a huge increase in immigrant population. Immigrant population in Spain represented about a 10% of total population in 2008, when it was less than 1% in 1990¹. Its particular geographical distribution of source-countries can be useful to distinguish the different role of each of the types of links between immigration and trade mentioned in the literature. Moreover, since 1995 the EPA² addresses immigrant's individual characteristics with more detail. That allows us to better investigate the mechanisms that explain the positive relationship between immigration and trade. Finally, the increase in immigrant population presents significant differences among Spanish regions in terms of number of immigrants, their countries of origin and their individual characteristics such as occupations or education records.

The paper uses data of 17 Spanish regions and 83 partner countries from 1996 to 2004. The empirical model is an augmented gravity equation, which includes immigration stock data. In order to identify the mechanism behind the linkage between immigration and trade, and not only the existence of an effect, immigrant data are classified by different individual and national characteristics and trade data by different types of products. Several regions' characteristics are also included

Apart from increase international evidence, this paper makes a set of contributions with respect to previous evidence. We improve the specification of the

¹ Padrón Municipal, Instituto Nacional de Estadística (INE).

² Encuesta de Población Activa (Active Population Survey), Instituto Nacional de Estadística (INE).

gravity equation avoiding common errors on the literature³. With respect to the Spanish case, we improve the immigrant data by the new data provided by the EPA. The previous immigrant data underestimated immigrant population on Spain because the survey was based in a Population Census (Censo de Población de 1991) that did not account for the huge increase in immigrant population since the middle nineties. The new methodology (EPA 2005) corrects for this bias by using the Population Census of 2001. As a result, we obtain more robust evidence about the positive link between immigration and trade. Finally, we offer brand new evidence about the link between immigration and trade in the Spanish regions.

The following section discusses how immigrant population can influence trade of the host-country - the links between immigration and trade and the mechanisms explaining that link. Section three presents some facts about immigration data in Spain and its regions. Next section presents the gravity equation, the hypothesis to be tested and the empirical model implemented in this paper. Section fifth presents the econometric results and, finally, the last section summarizes the main conclusion of the paper and proposals for further research.

II. THE LINKS BETWEEN IMMIGRATION AND TRADE

Theoretical literature about the effects of immigration on trade is scarce. The most relevant exception is the paper by Rauch (1999). Rauch argues that immigrants can reduce trade transaction costs by creating social networks with their countrymen in their home country, which can facilitate trade between the home and the host country. Social networks help to match international buyers and sellers and, hence, reduce transaction costs of trade. According to Rauch, this effect is greater for differentiated

³ See, for example, Baldwin et al. (2008).

products than for products traded on organized exchanges (usually, homogeneous products).

This is one of the hypotheses that the existing empirical literature has tested. The pioneer study by Gould (1994) was followed by Head and Ries (1998) and Dunlevy and Hutchinson (1999), and more recently by Girma and Yu (2002), Wagner et al. (2002), Bryant et al. (2004), Blanes (2004, 2009) and Mundra (2005) and White (2007). Other papers, such as Rauch and Trindade (2002), Dunlevy (2004), Combes et al. (2005) and Herander and Saavedra (2005) focused on the transaction cost reduction effect resulting from immigrant networks. White and Tadesse (2007 and 2008a) focus their analysis on the effect of immigration on reducing cultural distances and hence fostering trade. A more innovative approach is Jiang (2007) that measures how information, measured by immigration, affects the intensive and extensive margins of trade. All these papers have found empirical evidence of a positive effect of immigration on bilateral trade between immigrants' host and home countries.

Departing from the existing literature, we can identify two channels through which immigrant populations can benefit bilateral trade between their home and the host countries. We can also identify a set of mechanisms through which these channels act. Furthermore, there is one channel through which immigration can reduce such trade.

Immigration can positively affect trade flows through two basic channels: first, immigrants bring with them a preference for home-country products (*preference channel*) and, second, immigration can reduce trading transaction costs (*transaction cost reduction channel*). This second channel is twofold. On the one hand, immigration can create (ethnic) networks - knowledge of home-country markets and business contacts. Immigrants can have an advantage in dealing with their countrymen who remain in the home country as a result of greater trust and/or a mutually understood

culture (*ethnic network mechanism*). On the other hand, cultural ties, like common languages, historical colonial ties, common preferences, and knowledge of political and social institutions, can reduce trading transaction costs. Moreover, the immigrant population may reduce trade transaction costs by using its knowledge about the products produced in both countries and their characteristics (*information mechanism*).

The existing literature suggests that the relevance of the two channels on bilateral trade is different depending on whether we are considering export or import trade flows. The effects of the second channel also differs depending on the type of products traded, the home country of the immigrants, and the individual characteristics of the immigrants, such as their level of education or their job or business activity in the host country. Those differences can help us identify the mechanism through which this link between immigration and trade acts.

So, while reduction of transaction trade costs affects both imports and exports in a similar way, immigrant preference for home country products would affect only imports from the home countries. Hence, if we only find a positive effect of immigration on imports but not on exports, it implies that immigration affects trade through immigrants' preference for home country products. If both imports and exports are positively affected, but the effect is greater for imports, this preference mechanism would account for the difference. Moreover, this preference effect is likely to be larger for differentiated products than for homogeneous products, as pointed out by Head and Ries (1998). When goods are homogeneous there is little reason to prefer goods sourced from a specific country; however, when goods are differentiated, the 'ideal' variety may be unavailable locally and require importation.

With respect to transaction cost reduction, as Gould (1994) points out, the additional information brought by immigrants can be more relevant for consumer goods

than for producer goods, since the former tend to be more differentiated across countries. Moreover, Dunlevy and Hutchinson (1999) argue that the purchase of consumer goods and processed foodstuffs by immigrants would have a greater effect than that of crude or semi-manufactured goods, to the extent that they are imported to satisfy specific tastes. So, if the positive effect of immigrant stock is found to be stronger for consumer goods than for producer goods, it could be deduced that the mechanism behind the immigration-trade link is an increase in information about foreign products gained through immigrants.

Secondly, where the immigrants come from can also be important. Some home countries have social and political institutions similar to the ones in the host country. This is often the case of countries with colonial or cultural ties or countries like those in the European Union that are involved in the same economic integration agenda and which share common institutions. In such cases, immigrants from these countries bring with them less additional information than immigrants from other countries and they contribute less to reducing transaction costs. In other words, for this mechanism, the effect of immigration on bilateral trade depends on which country that immigrant comes from.

Immigrants can also reduce transaction costs through individual personal contacts with other immigrants or through connections with their home country. This effect is independent of the country of origin of the immigrant⁴. So, if we find a positive effect of immigration on trade with countries which present different social and political institutions but not with countries with similar ones, the mechanism through which immigration increases trade is the additional knowledge about these institutions brought by immigrants. If there is a positive effect for both groups, but the effect on trade is

⁴ These two mechanisms are called non-individual-specific and individual-specific, respectively, by Girma and Yu (2002). In the former case, the effect of the immigrant-link would be universal and, in the latter, non-universal.

greater for the former group of countries than for the latter, this mechanism accounts for the difference. If there is no difference between the two groups of immigrants, personal contacts or connections with immigrant's home country explains the immigration-trade link.

Finally, different personal characteristics of immigrants can result in different effects of immigration on trade. Gould (1994) and Head and Ries (1998) argue that the more skilled the immigrants are, the greater the chance that they possess the knowledge and contacts necessary to increase trade flows. Thus, if the link works through immigrants' knowledge about business in their home countries or by contacts with home-country residents, the effect of immigration is greater the more skilled or educated the immigrants are or the more involved they are in business activities.

Despite all the possible positive effects of immigration on bilateral trade, there can also be a negative effect. Dunlevy and Hutchinson (1999) point out a trade-substitution immigration effect when immigrants apply their knowledge about technology or production methods and about immigrants' tastes to host-country production or transmit them to local producers in such a way that previously imported goods can be replaced by local production.

A few papers and most of them very recently had addressed the topic of the link between immigration and trade using data at the regional level. The first paper to extend the study of the immigrant trade link to the sub-national level was Wagner et al. (2002). They use the fact that different Canadian *provinces* have a different main language (French or English) to analyse the positive effect of a common language on reducing trade transaction costs. The relevance of using data at the regional level is empathized by Dunlevy (2004). He points out that if the immigration-trade link relies on networks of individuals and families, the pro-trade effect of immigration must be observed at the

sub-national level. If this is not the case, results at the national level may be only a spurious correlation. Dunlevy (2006) also finds evidence of a positive effect of immigration on United States' states bilateral trade. Recently, Tadesse and White (2008b) and White and Tadesse (2008b) use also data at the regional level (again US states). As in White and Tadesse (2008a) but at regional instead of national level, both papers find that immigration offsets the negative effect of cultural distance on bilateral trade⁵.

III. IMMIGRANT DATA IN THE SPANISH REGIONS

The number of immigrants in Spain as well as in its regions is not well known as figures differ depending on the source used. There are also some methodological problems due to legal changes, such as the Schengen Agreement, which allows EU citizens to live and work in other Schengen countries with no need for a legal permit. The highest figures, from census data, are around 30% higher than those from legal data, the lowest figures. It is generally considered that, for different reasons, census data and legal data offer figures that are too high and too low, respectively, compared with the actual numbers⁶. Census data offer little information about immigrants' individual characteristics and are thought to show an artificially high number of immigrants. For example, the 'Censo de Población' (National Census) is carried out only every ten years and immigration was not addressed in detail until the last one in 2001. The 'Padrón Municipal' (Municipal census) includes immigrants that are registered twice, and sometimes immigrants register relatives that are not yet living in Spain. Legal data on

⁵ Combes et al. (2005) also use data at the regional level. However, they address immigration and trade between French departments and not international migration and trade.

⁶ The number of irregular immigrants in Spain has been estimated to be close to half a million people or a third of legal immigration in 2003 (Arango, 2003).

immigrants, such as that from the Interior Ministry's 'Residence Permit Register' or the Employment Ministry's "Work Permit Register' suffer from the fact that they are legal registers and not statistical sources, so they only include legal immigrants. Also, information about individual countries is only offered for the most important source countries (about 42 countries). Another limitation of the 'Work Permit Register' is that it only includes immigrants who want to work and are legally able to work, and thus excludes the young and the elderly. The advantage of the 'Residence Permit Registration' is that it is a regular source of information and is available for every year.

Compared with the immigrant data sources mentioned above, the 'Encuesta de Población Activa' (EPA) - Active Population Survey – presents several advantages. Apart from including a wider range of the population, it presents information about a large number of foreign nationalities and countries of birth and, more importantly for the purposes of this paper, it offers information about individual characteristics, such as the level of education and whether the individual is an employer or employee. It also avoids the problem posed by the Schengen agreement with regard to EU immigrants. As a result, we have chosen the EPA, 2005 methodology, as our source of data and we use yearly data on immigrants from 83 countries in Spain for the period 1996 to 2004⁷.

IV. THE EMPIRICAL MODEL

In this study we first test for the existence and relevance of a positive effect of immigrants living in the Spanish regions on the bilateral trade with their home countries. Then, we try to identify some of the mechanisms through which this positive effect takes place, making use of information about product types and national (non-

⁷ Data on immigrants is available up to a more recent year; however, it is not the case of other variables that we use as explanatory variables of trade volume. So, we restrict our data period to 2004.

individual-specific) and personal (individual-specific) characteristics of immigrants. In all the cases, we estimated a specification that includes all the variables that the previous literature suggests are relevant. Our aim is also to identify if there are some differences between Spanish regions in the way immigration is linked with bilateral trade. We also test for the robustness and sensitivity to specification of our results by estimating different combinations of explanatory variables, particularly of the set of control variables in the form of dummy variables which take into account certain characteristics of partner countries.

Following the previous literature, we use an augmented gravity equation for trade to test the link between immigration and bilateral trade. The basic gravity equation for trade relates the volume of trade positively to the mass of the two countries and negatively to the trade costs between them (variables reflecting trade impediments). In addition to the basic specification, we included a measure of the immigrant stock from country i in Spanish region r in year t (mig_{irt})⁸, which we expected to positively affect both Spanish regions imports from and exports to immigrants' home-countries, for the reasons explained above⁹.

We used the GDP of each Spanish region and of each partner country to capture the standard income effect on imports or the supply potential of each economy depending if we are estimated for exports or imports¹⁰. The population of each partner country and each region is also included. The traditional gravity equation for trade includes the geographical distance between partners as the main proxy variable to trade impediments. As we are using data for Spanish regions, variance between regions on

⁸ Trade data is taken from Dirección General de Aduanas (Ministerio de Comercio y Turismo), GDP data is taken from PWT 6.1, immigrant data comes from the Encuesta de Población Activa (EPA), Instituto Nacional de Estadística (INE) and distance from PC GLOBE.

⁹ One exception is the import-substitution effect as pointed out by Dunlevy and Hutchinson (1999).

¹⁰ When we estimate for the Spanish regions' exports, its GDP captures its supply potential (bigger countries can offer goods that are either relatively competitive or abundant in variety, or both) and partner country GDP captures the income effect on its expenditure in products from Spanish regions. The contrary stands when we estimate for the Spanish regions' imports.

this variable will be little significant to explain differences in trade flows. So, instead of distance we include other variables that can facilitate trade such as the stock of transport infrastructures (distinguishing between road transport $-road_{rt}$ and other means of transport $-noroad_{rt}$).

We also include a set of control variables in the form of dummy variables to take into account particular characteristics of partner countries that can increase trade flows independently of immigrant stocks or the mass and the distance of both partners. Those variables are, first, a dummy variable for membership of the European Union (eu_i) because the Single European Market facilitates trade between its members; second, sharing a common language, which would also facilitate trade, independent of the immigration effect, thus reducing trade transaction costs ($lang_i$).

$$Y_{rit} = \beta_0 + \beta_1 gdp_{it} + \beta_2 gdp_{rt} + \beta_3 pop_{it} + \beta_4 pop_{rt} + \beta_5 mig_{irt} + \beta_6 eu_i + \beta_7 lang_{it} + \\ + \eta_r + \phi_i + \lambda_t + \phi_i \cdot \lambda_t + \eta_r \cdot \lambda_t + \varepsilon_{rit}$$

where y_{it} stands for either Spanish' regions r imports (m_{irt}) from or exports (x_{irt}) to immigrants' home-country i , ε_{it} is the i.i.d. error term, and all variables, except for dummy variables, enter the equation in natural logarithms.

We estimate different specifications depending on the set of partner fixed effect are included in order to see how omitted variables bias affects estimated coefficients for the other variables.

With respect to the mechanisms behind the link between immigration and trade, the estimation of this specification separately for imports and exports allows us to test

both for the existence of a link between immigration and trade and for the relevance of the two channels causing this link.

To further investigate the mechanisms explaining the link between immigration and trade we perform additional tests. In doing so, we used information about product types – since they are related to its sensitivity to trade transaction cost - and immigrants' national and individual characteristics related to their capability to reduce such costs.

In order to test if the link works as a result of an increase in information on the part of the immigrant with regard to home or host country products, we divided trade flows into two types of goods, according to the BEC classification: producer goods (PG) and consumer goods (CG) ¹¹[WORK IN PROGRESS]. As mentioned before, we expected immigrants' stock to have a greater positive effect on consumer goods than on producer goods.

Second, we considered the hypothesis of a lower positive effect of immigrants from home-countries with similar social and political institutions to the ones in the host country, since they bring with them less additional information. We assumed that immigrants coming from former Spanish colonies would benefit bilateral trade less¹². We defined two dummy variables: we gave one of them the value 1 for countries that had been colonies of Spain and 0 if they had not (col_{it}) and we gave the other the value 1 for countries that had not been colonies of Spain and 0 if they had ($nocol_{it}$). Then a multiplicative variable of these dummies and mig_{it} was included in the model instead of

¹¹ The BEC is the "Classification by Broad Economic Categories" (United Nations). This classification is intended to categorize trade statistics into large economic classes of commodities and to supplement the summary data compiled on the basis of the sections of the Standard International Trade Classification (SITC). The classification unit is the end-use category of transportable good. BEC codes 111, 121, 21, 22, 31, 32, 41, 42, 521 and 53 correspond to producer goods and BEC codes 112, 122, 51, 522, 6 and 7 correspond to consumer goods. See <http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=10&Lg=1> for detailed structure and explanatory notes of this classification.

¹² For example, language is already known since it is the same in Spain than in its former colonies (Philippines being the only exception in the sample). Hutchinson (2002) finds that the fact that a country has English as the first or second language of its population facilitates trade with the United States of America.

the immigrants' stock variable. This allows the elasticity of immigration to vary across the different groups of countries¹³. Notice that in this specification we dropped the common language variable (*lang_i*). In our data set this variable and the variable for countries that were Spanish colonies (*col_i*) are highly correlated since all the former Spanish colonies but one (the Philippines), have Spanish as its official language [WORK IN PROGRESS].

Finally, we focused on personal (individual-specific) characteristics. The objective was to determine if the link works through immigrants' knowledge about business in their home countries or by contacts with home country residents (network effect). If this was the case, more skilled or educated immigrants would increase trade the most, since they are more able to bring and use information about home markets and social and political institutions and about products and their characteristics. Furthermore, the more related to business the immigrants were, the greater the chance that they would use the knowledge and contacts to increase trade flows.

From the EPA we can compute two sets of variables that take into account both types of individual-specific characteristics. First, we placed immigrants into four groups by education level: no education (*migedu1_{it}*), some or a completed primary education (*migedu2_{it}*), some or a completed secondary education (*migedu3_{it}*) and some or a completed university degree (*migedu4_{it}*). Then, we put immigrants from each country into three groups: managers, which include employers and managers without employees (*migm_{it}*), employees (*mige_{it}*) and others (*migo_{it}*). This last group includes people who work in a family business but are not officially employed, cooperative members and

¹³ This is the methodology used by Girma and Yu (2002).

those in other such situations. All those variables were computed for each immigrant's home country (i) and year (t)¹⁴. [WORK IN PROGRESS]

Estimating the model for different sets of variables allows us to test for the robustness and sensitivity to specification of our results. In the next section we present and discuss the estimation results.

V. RESULTS

First, we estimate the gravity equation for exports of Spanish regions. We distinguish among the exports being of agricultural products, manufactures or energy. Results are displayed in Table 1. First, we can observe that several variables are never significant, as usually happens in this type of models when individual effects are included. This is the case of the GDP and the population of the Spanish regions, the same as the indicators of stock of transport endowments. The partner country's population is significant in all cases, whereas its GDP is significant only in the case of Total Exports and Manufactures. The dummies for the partner countries belonging to the European Union or having Spanish as official language are always significant, although the former displays a surprising negative effect in the case of Total Exports and Manufactures. With regard to the number of foreigner in each region, they have a positive effect in all cases but in Agriculture. [WORK IN PROGRESS]

¹⁴ Blanes and Martín (2006) consider immigrants' occupations. They found that immigrants working in tertiary occupations increase both Spanish exports and imports while immigrants working in primary activities or industry do not.

Table 1. Gravity equations for Spanish regions' exports.

	TOTAL EXPORTS	Agriculture	Manufactures	Energy
Partner country 's GDP	2,263 [0,010]	2,807 [0,418]	2,417 [0,007]	4,701 [0,163]
Region's GDP	0,187 [0,984]	23,849 [0,462]	-1,103 [0,907]	33,438 [0,341]
Partner country's population	0,622 [0,017]	5,148 [0,009]	0,579 [0,036]	7,537 [0,004]
Region's population	7,470 [0,323]	-10,533 [0,671]	9,854 [0,208]	-5,536 [0,834]
Number of foreigners	0,138 [0,008]	0,130 [0,618]	0,165 [0,005]	0,687 [0,010]
Capital transport (road)	0,110 [0,323]	0,091 [0,839]	0,129 [0,241]	-0,334 [0,498]
Capital transport (no road)	0,054 [0,541]	0,056 [0,871]	0,039 [0,652]	-0,061 [0,870]
EU dummy	-36,611 [0,000]	22,965 [0,000]	-36,671 [0,000]	29,417 [0,000]
Common language dummy	3,839 [0,013]	23,462 [0,026]	4,312 [0,006]	10,164 [0,075]
R ²	0,696	0,578	0,693	0,593

P-values in brackets. All equations include effects for each partner country, region and year, together with time-varying effects for countries and regions.

REFERENCES

Arango, J. (2003): “Europa, ¿Una sociedad multicultural en el Siglo XXI?”, *Papeles de Economía Española*, 98, pp. 2-15.

Baldwin, R. and Taglioni, D. (2007): “Trade effects of the euro: a comparison of estimators”, *Journal of Economic Integration*, 22 (4).

Baldwin R. , DiNino, V., Fontagné, L., De Santis, R.A. and Taglioni, D. (2008): “Study of the impact of the Euro on Trade and Foreign Direct Investment”, *European Economy-Economic Papers*, 321.

Blanes, J. V. (2004): “El nexo entre la inmigración y el comercio en España”, *Información Comercial Española – Revista de Economía*, 814, pp. 39-48.

Blanes, J. V. (2005): “Does Immigration Help to Explain Intra-Industry Trade? Evidence for Spain”, *Review of World Economics – Weltwirtschaftliches Archiv*, 141 (2), pp. 244-270.

Blanes, J. V. (2008): “Immigrants’ Characteristics and Bilateral Trade”, *Revista de Economía Aplicada*, XVI (48), pp. 133-159.

Blanes, J. V. and Martín-Montaner, J. A. (2006): “Migration Flows and Intra-Industry Trade Adjustment”, *Review of World Economics – Weltwirtschaftliches Archiv*, 142 (3), pp. 568-585.

Bryant, J., Genç, M. And Law, D. (2004): “Trade and Migration to New Zealand”, *New Zealand Treasury*, Working Paper 04/04.

Bun M. J. G. and Klaassen F.J.G.M. (2007): “The Euro Effect on Trade is not as Large as Commonly Thought”. *Oxford Bulletin of Economics and Statistics*, 69, pp 473-496.

Combes, P.P., Lafourcade, M. and Mayer, T. (2005): “The Trade Creating Effects of Business and Social networks: evidence from France”, *Journal of International Economics*, 66 (1), pp. 1-29.

Dunlevy, J. A. (2004): "Interpersonal Networks in International Trade: Evidence on the Role of Immigrants in Promoting Exports from the American States", Working Paper, Department of Economics (Miami University).

Dunlevy, J. A. (2006): "The influence of corruption and language on the protrude effect of immigrants: evidence from the American States", *The Review of Economics and Statistics*, 88 (1), pp. 182-186.

Dunlevy, J.A. and Hutchinson, W. (1999): "The impact of immigration on American import trade in the late nineteenth and twentieth centuries", *Journal of Economic History*, 59 (4), pp. 1043-62.

Girma, S. and Yu, Z (2002): "The link between immigration and trade: Evidence from the UK", *Weltwirtschaftliches Archiv*, 138 (1), pp. 115-130.

Gould, D. (1994): "Immigrant links to the home-country: empirical implications for U.S. bilateral trade flows", *The Review of Economics and Statistics*, 76 (2), pp. 302-316.

Head, K. and Ries, J. (1998): "Immigration and trade creation: Econometric evidence from Canada", *Canadian Journal of Economics*, 31 (1), pp.47-62.

Herander, M.G. and Saavedra, L.A. (2005): "Exports and the Structure of Immigrant-Based Networks: The Role of Geographic Proximity", *The Review of Economics and Statistics*, 87 (2), pp. 323-335.

Hutchinson, W. K. (2002): "Does Ease of Communication Increase Trade? Commonality of Language and Bilateral Trade", *Scottish Journal of Political Economy*, 49 (5), pp. 544-556.

Jiang, S. (2007): "Immigration, Information and Trade Margins", Working Papers Department of Economics, University of Calgary, No. 2007-16.

Mundra, K. (2005): "Immigration and International Trade: A Semiparametric Empirical Investigation", *Journal of International Trade and Economic Development*, 14 (1), pp. 65-91.

Rauch, J. (1999): "Networks versus markets in international trade", *Journal of International Economics*, 48 (1), pp.7-35.

Rauch, J. (2001): "Business and social networks in international trade", *Journal of Economic Literature*, 39 (4), pp. 1177-1203.

Rauch, J. E. and Trindade, V. (2002): "Ethnic Chinese Networks in International Trade", *The Review of Economics and Statistics*, 84 (1), pp. 116-130.

Tadesse, B. and White B. (2008): "Do immigrants counter the effect of cultural distance on trade? Evidence from US state-level exports", *The Journal of Socio-Economics*, 37, pp. 2304-2318.

Wagner, D. , Head, K. and Ries, J. (2002): "Immigration and Trade of Provinces", *Scottish Journal of Political Economy*, 49 (5), pp. 507-525.

White, R. (2007): "Immigrant-trade links, transplanted home bias and network effects", *Applied Economics*, 39 (7), pp. 839-852.

White, R. and Tadesse, B. (2007): "Immigration policy, cultural pluralism and trade: evidence from the white Australian policy", *Pacific Economic Review*, 12 (4), pp. 489-509.

White, R. and Tadesse, B. (2008a): "Cultural Distance and the US Immigrant-Trade link", *The World Economy*, 31 (8), pp. 1078-1096.

White, R. and Tadesse, B. (2008b): "Immigrants, cultural distance and U.S. state-level exports of cultural products", *North American Journal of Economics and Finance*, 19 (3), pp. 331-348.