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Transnational social capital and FDI.
Evidence from Italian associations worldwide

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Abstract. Emigrant associations abroad are structured nodes of social networks; they are manifestations of a transnational social capital. Italian associations are numerous, spread across several countries, in some cases they exist since the end of the nineteenth century, and may count on high numbers of members. Also, they are robustly tied to the home country. This paper assesses the effects of Italian associations abroad on the bilateral FDI between Italy and the countries of settlement of Italian diaspora. The main results are that these effects are positive and strongly significant, especially for the inward FDI and relatively to the countries with the oldest associations.

Keywords: international migration, FDI, Italy

JEL: F21, F23

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1. Introduction

Since the second half of the XIX century and until the beginning of the seventies of last century, a large number of Italians left the country to live permanently abroad. Recently, the number of people of Italian nationality living outside Italy has been estimated to be roughly equal to the number of those living into the country (Gabaccia, 2000). Because of the magnitude of the phenomenon, of lively and enduring links among the emigrants, and also because of robust ties with the home country, Italians abroad compose one of the most important diasporas in modern history.

A manifestation of links are Italian associations abroad. There are traces of their existence and of their proliferation in each of the more important destination countries since almost the beginning of the mass emigration phenomenon. Despite the reasons for the existence of the associations have changed through the passage of time, and several had an ephemeral life, some of the original ones survive till these days.

Associations are expressions of the existence of a common social capital. Guiso, Sapienza and Zingales (2008) define social capital as culture, more precisely, as “those shared customary beliefs and values that ethnic, religious and social groups transmit from generation to generation and enable their members to act together more effectively to pursue shared objectives”. Associations can also be seen as nodes, or structured components, of social networks. In Granovetter’s (1973) definition, networks are “set[s] of actors who know each other relevant characteristics or can learn them through referral” (on migrants’ networks, see Rauch 2001). The difference between the latter two concepts lies on associations being actively generated by individuals that choose to be reciprocally linked and to formally define the rules of access to the group, while networks are informal aggregations, to which individuals can belong, or cease to, even passively. In this framework, the associations of a diaspora can be considered as manifestations of the existence of a transnational social capital.

The case of Italian associations abroad is exemplary. Not only they are numerous and spread across several countries, not only in some cases the number of associates is huge – both of Italian nationality and natives of the foreign country - , but they have also links with the home country that in several cases have been formalized and institutionalized more than a century ago. More precisely, since the last decades of the nineteenth century emigrants have obtained that the Italian government officially recognize and in some cases subsidize their associative activities abroad. These formal links have strengthened the ties between the home country and the diaspora. Also, since the seventies of the last century, the Italian Government has started to keep a register of the Italian associations abroad, which has made their existence traceable and comparable across locations and through time.

Social capital theory, and more broadly networks' theory, hypothesise that social interactions lower the costs of market transactions. Hence, we expect associations to positively influence economic exchanges among its members. More precisely, given their voluntary and structured nature, we expect the social capital effects of associations abroad on international exchanges to be stronger and more enduring than those that might derive from the mere existence of numerous but unrelated and unorganized emigrants. Associations confer structure to networks, and because of it influence transactions.

This paper empirically investigates the impact of the Italian associations abroad on the Italian bilateral foreign direct investments (FDI) with the countries of residence of emigrants. The novelty of the approach lies on the proxy utilized, which refers to social capital and concerns associations. This proxy is more appropriate, in our view, than the usually utilized migrants' stocks. The paper presents a profile of the Italian associations abroad and of their main transformation through history. Our main results are that the effects of the transnational associations on the Italian bilateral FDI are positive and significant, especially for the countries of historical emigration and especially for the inward FDI.

The paper is structured as follows. Section 2 outlines the main concepts and theoretical framework. Section 3 presents a profile of Italian associations abroad which relies on a comprehensive dataset for two benchmark years, 1970 and 2005. Section 4 describes the econometric specification utilized to assess the impact of Italian associations abroad on Italy's bilateral FDI. Section 5 presents the results and Section 6 concludes. The Appendix provides details on data and sources.

2. Concepts and theoretical framework

The main hypothesis of the literature on transnational links states that migrants can bring with them information on economic opportunities in their countries of origin that is valuable for firms, and can boost bilateral trade and FDI (for a review see Wagner, Head and Ries, 2002). The value of this information, however, can fade rapidly after the time of the migration if migrants are not connected between them and if they do not preserve their ties with the home country (Gould, 1994). Migrants' ties are especially valuable when they transmit and update information and knowledge on foreign markets even after years and decades of migration. This especially happens when migrants bring with them their countries' culture and social norms and blend them positively with those of the destination countries (Algan and Cahuc, 2007); that is, when they are endowed with what we call "transnational social capital". As long as social capital leads to the preservation and creation of transnational links, it lowers the costs of international transactions and can facilitate the bilateral economic exchanges, of trade and FDI, with the country of origin.

A difficulty related to the measurement of social capital is that, as it is supposed to influence the functioning of the economy, any proxy of it should be independent of the economy itself. The main risk in measuring social capital is the use of “spurious” proxies, which include factors that social capital is supposed to affect, or leading to the same or similar results. For example, both a good legal system and a good level of social capital tend to lower the costs of transactions. In our case, both the diaspora itself and the bilateral agreements existing between the home country and the main countries of settlement of emigrants may make the bilateral transactions with those countries less costly. Moreover, the econometric measuring of the effects of social capital may be affected by simultaneous causation or endogeneity. The definition of social capital as culture (Guiso, Sapienza and Zingales, 2005; Tabellini, 2009; Fernández, 2007), where individuals’ values and norms play a central role, has shown to be consistent with measures that are sufficiently free from these concerns.²

Social capital, in this conception, can be accumulated (beliefs can be inherited, values and norms may adapt to changing external conditions) and has an economic payoff. To correctly assess the latter, this literature has followed two main procedures. On the one hand, the “movers approach” considers the behaviour of migrants in their destination countries or regions and relates it to their origin countries or regions. It is assumed that migrants bring with them the home country culture, but not its institutions (except in the cases of colonization) or economy. On the other hand, the “historical approach”, takes into account events that have taken place far into the past and are no longer connected to the current economy or institutions, but may still influence peoples’ beliefs and values (Guiso, Sapienza and Zingales, 2008). Both approaches try to assess how individuals’ social and economic interactions are affected by their culture, and, in turn, how culture affects the economy.

In our case, Italian emigrants have maintained strong links with the home country and have even substantially influenced some of its institutions. An example is the law of citizenship, which confer the Italian citizenship to emigrants of the first generation and to their offspring. Another concerns bilateral agreements signed by Italy with the main countries of settlement, which initially aimed at protecting the rights of Italian emigrants abroad, and later also facilitated the return to the home country to them and their descents (for example, officially recognizing those countries’ school diplomas and certificates). Another one is represented by a law that in 2001 gave Italians residing permanently abroad the right to vote in Italy’s general elections and to have their representatives in Parliament (Gabaccia, 2000; Murat, Pistoiesi and Rinaldi, 2009). The more significant example for

² Among these, the trust in others manifested by individuals in surveys, the decisions of individuals to donate blood, referenda turnouts or membership in voluntary associations, have been seen as choices or actions that reveal preferences and values and are independent from economic incentives (Gambetta, 2000).

this paper, however, regards the institutional relations of the emigrants' associations with the home country.

Another difficulty related with the measurement of transnational social capital is that emigrants' behaviour can be influenced by the culture of their country of origin, but can also be influenced by the culture and institutions of the country of settlement. In particular, the propensity of Italian emigrants to create ethnic associations could be affected by the institutional framework of the host country rather than being the product of their own social capital. We control for this factor by running a regression with the Italian associations abroad as the dependent variable and the overall propensity of individuals in the host countries to form associations as a regressor.³ Our results are that the coefficient of the latter variable is positive but statistically not significant.

These findings suggest that we can reasonably consider our variable concerning the stocks of Italian associations abroad as independent from the host countries' institutions and their propensities to form associations, and as a satisfactory proxy of the transnational social capital of the Italian diaspora.⁴

3. A profile of Italian associations abroad

Since the beginning of mass migration in the XIX century, the Italian communities abroad evidenced a high propensity to found associations. These were mainly mutual aid societies and workers' aid societies that over time came to offer a wide range of services to their members: in addition to the provision of welfare and financial assistance to immigrants, most societies organized leisure and social events for their members and some of them also ran Italian-language schools and hospitals open to all Italians. Most of these societies were local in orientation, that is, they limited membership to people (usually men) from a particular town or village of origin. In so doing, they played a crucial role in reproducing the social life, identity and values of their home village (Gabaccia, 2000; Bugiardini, 2002). In addition to mutual aid societies and workers' aid societies, at

³ On that purpose we used the World Values Survey (first waves). A country's overall propensity to form associations could in turn be influenced by the presence of Italian communities there, and by their own propensity to create associations. However, as Italian immigrants are a minor share of the population of all partner countries (except rare exceptions), we can presume this influence to be nil.

⁴ This regression is available upon request. The fact that the social capital is a major determinant of the propensity of Italian emigrants to form ethnic associations is supported by a comparison with other diasporas, such as the Indians and the Chinese. In fact, in the presence of the same host country's institutional framework (i.e., the United States), the Indians and the Chinese rely much more on informal networks and show a much lower propensity to set up associations than the Italians.

the end of the XIX century the Italian communities abroad formed also their first business associations and Chambers of Commerce (Foerster 1919).

Despite the early propensity of Italian diaspora to create ethnic associations, the Italian Foreign Ministry waited until 1970 to carry out the first comprehensive survey of Italian associations abroad. Since then, that statistics has been periodically updated until 2007.⁵ As the early Ministerial surveys have been criticized for failing to tabulate several associations (Bernasconi, 1993), this section presents a comprehensive dataset of the Italian associations abroad in 1970 which adds to the statistics edited in 1972 by the Italian Foreign Ministry those associations that did not appear in that publication but that were included in the 2007 Ministerial survey as founded prior to 1971.

The results of this procedure are shown in Table 1. The total number of Italian associations abroad in 1970 amounted to 3,755.⁶ Mutual aid and welfare societies prevailed (1,186), followed by leisure (732) and cultural (520) societies.⁷ It is worth noting that there were also 70 business and professional associations (nearly half of them Italian chambers of commerce abroad), to stress the role that Italian migrants had come to play in the host countries' business communities. Most associations were located in countries that hosted sizeable Italian communities. The nation with the higher number of Italian associations was nearby Switzerland (1,058), followed by Argentina (637), the United States (410), Canada (273), and France (227).

In the 1970s the setting-up of the regional governments in Italy marked a substantial step for the evolution of Italian emigrants' associations. In fact, since then the regional governments have been entrusted with the task of directly managing the relationships with (and funding to) regionally- and locally-oriented associations abroad.

⁵ The statistics of Italian associations abroad was updated in 1974, 1980, 1985, 1995, 2000 and 2007 (Colucci, 2001; Ministero degli Affari Esteri, 2007).

⁶ As many associations omitted to provide data on their membership we have preferred to focus only on the number of associations.

⁷ Many associations offered a wide range of services that spanned across several of the "types" we carved out in our taxonomy. However, to avoid that an association was counted more than once we classified every association as belonging to only one type, which was identified according to the association's principal activity.

At the same time, some host nations, such as the USA, Canada, and the UK, granted foreign communities public spaces and public funding to organize, on a local basis, community centres that promoted the culture and values of their countries of origin. Italian associations took advantage of this opportunity and succeeded in establishing themselves as interlocutors of the host countries' authorities as well as actors exerting a publicly-recognized representation of the Italian communities (Colucci, 2001).

Both changes turned out to prompt after 1970 a surge of locally- and regionally-oriented associations. Table 1 shows that in 2005 the total number of associations had risen to 5,857 from 3,755 in 1970 (+56%). The surge of regional and local associations was staggering: they jumped from 427 in 1970 to 2,056 in 2005, when they had come to number more than 35 percent of total associations. In the face of the rise of the total number of association, all types of associations – with the exception of religious and sporting societies and unions – increased in absolute terms between 1970 and 2005.

Table 1 – Italian associations abroad, by type and year

<i>Type</i>	<i>1970</i>		<i>2005</i>	
	N.	%	N.	%
Mutual aid and welfare	1,186	31.6	1,216	20.8
Cultural	520	13.8	833	14.2
Patriotic	244	6.5	290	5
Religious	195	5.2	186	3.2
Sporting	339	9	205	3.5
Business and professional	70	1.9	78	1.3
Political	21	0.6	26	0.4
Regional and local	427	11.4	2,056	35.1
Leisure	732	19.5	961	16.4
Unions	21	0.6	6	0.1
Total	3,755	100	5,857	100

Many Italian associations functioned as meeting points that helped to transmit the shared customary values of the Italian diaspora from generation to generation and improved the level of reciprocal

trust between their members, which that facilitated their social and economic interactions and links with their country of origin. Moreover, over the course of time several associations started to develop activities explicitly aimed at prompting business relations between Italians abroad and Italy.

An exemplary case in point is that of the Italian National American Foundation (NIAF), an association founded in 1975 by a group of prominent Italian Americans which presently has a membership of about 20 million in the USA (Cavaioli, 1985; Rotandaro, 2000; Openshaw, 2005).

NIAF's goals are to help young Italian Americans with education and careers, lobby the Congress and the White House to promote the appointment of Italian Americans in government, encourage the teaching of the Italian language and culture in schools, monitor the portrayal of Italian Americans by the news and entertainment industries, and strengthen cultural and economic ties between Italy and the United States.

In 1976 NIAF held its first event, the "Bicentennial Tribute Dinner," in honour of the 29 Italian American members of Congress. Then NIAF began to organize conferences on various themes, often combining professional disciplines such as jurisprudence, ethics and ethnic politics. Scholarship and grant opportunities to young Italian Americans complemented the education agenda. NIAF operated to retain Italian cultural traditions and heritage and bringing the Italian language to schools and universities in the USA. Moreover, in the 1990s NIAF executed a series of agreements with Italy aimed at closer relations through student exchange.

In recognition of the expanding professional interests of its membership, between the late 1990s and the beginning of the XXI century NIAF established a Medical Council (for Italian American doctors), a Wall Street Council (for Italian Americans active in the financial community), a Business Council (for Italian American corporate executives), and an Institute for International Law (for Italian Americans in the legal profession).

4. Econometric specification

In this section we assess the interactions between the transnational social capital of the Italian diaspora and Italy's bilateral FDI. To this purpose we estimate (OLS) an econometric model in which we use the number of Italian associations abroad as a proxy of transnational social capital that may boost investments with the home country.

More specifically, we use a panel ranging from 1990 to 2005 to consider the stocks of FDI of 51 countries⁸ in Italy (inward FDI) and Italy's international investments in these economies (outward FDI) with respect to the stocks of Italian associations abroad.

Official statistics do not provide reliable data on stocks and flows of Italy's FDI regarding the first half of the XX century. Only in 1947, the Ufficio Italiano Cambi (Bureau of Currency Exchange, Bank of Italy) started to collect data about the inflows and outflows of foreign capitals, but these data are scarcely reliable and practically useless. There is no distinction in them between direct and portfolio investments, debts and loans, making it virtually impossible to detect an even approximate trend in FDI, at least up to the 1970s (Colli, 2007). Only since 1990, comparable data at the international level for both flows and stocks of FDI are available and have been provided by OECD and UNCTAD. For this reason, the database that we use in this section for testing our panel spans from 1990 to 2005.

Following the empirical literature on FDI and migrants' links (i.e Tong, 2005; Buch, Kleinert, Toubal, 2006) we estimate the following augmented gravity model:

$$Y_{it} = \alpha_0 + \alpha_1 GDP_{it} + \alpha_2 PCGDP_{it} + \alpha_3 ITGDP_t + \alpha_4 OPEN_{it} + \alpha_5 DIST_i + \alpha_{6it} CH_i + \alpha_7 GOV_i + \alpha_8 EU + \alpha_9 ASSOC_i + u_{it}$$

Where $i = 1, \dots, 51$ (foreign countries) and $t = 1990, \dots, 2005$ for the pooled estimation.

⁸ Albania, Algeria, Argentina, Australia, Austria, BLEU* (Belgium and Luxembourg), Brazil, Bulgaria, Canada, Chile, China, S. Korea, Croatia, Denmark*, Egypt, France*, Germany*, Japan, Greece*, Hungary, India, Indonesia, Iran, Ireland*, Israel, Libya, Malaysia, Morocco, Mexico, Norway, Netherlands*, Philippines, Poland, Portugal*, Rep. Czech, Rep. South Africa, Romania, Russia, Singapore, Slovakia, Slovenia, Spain*, Sweden, Switzerland, Thailand, Tunisia, Turkey, Ukraine, UK*, USA, Venezuela. *: members of the European Union in 1990. They define the dummy EU in the text.

We also present two cross-sections respectively for $t = 1990$ and $t = 2005$ checking for changes over time in the estimated coefficients of our variables of interests. Variables are in natural logs except for the dummy variables, CH, GOV and EU. Details and sources of variables are provided in Table A1 in the Appendix.

Y_{it} represents the stock of FDI from country i in Italy at time t (inward FDI) and Italy's FDI to foreign country i at time t (outward FDI).

Associations ($ASSOC_i$) capture the stock of transnational social capital accumulated by the diaspora; as it should facilitate transactions and bilateral FDI with the home country, the expected relation is positive. In particular, we consider the stock (total number) of Italian associations abroad in 1970, $ASSOC_{i1970}$, which is the first year for which official statistics on them are available. The dataset of Italian associations abroad has been presented in Section 3. This predetermined variable is introduced as a regressor with the aim to shed light on the impact of the social capital accumulated by the diaspora until 1970 on the future evolution, starting two decades later, of bilateral FDI with the home country.

Social capital is a variable related to culture rather than to features of the economy, and as such it is supposed to change more slowly than economic events over time. Because of this, and because the variable is significantly predetermined, it helps to deal with potential problems of simultaneous causation. The FDI are stocks, and despite those of 1990 (the first year of the panel time span) could in principle be affected by their own past history, it can be reasonably assumed that the diaspora associations existing up to 1970 have not been affected by the FDI taking place from 1990 to 2005. In fact, many of these associations existed since the first half of the XX century, and some since the end of the XIX century. Moreover, with the fall of the Berlin wall and the subsequent opening to trade of the ex-communist economies at the end of the 1980s, the world economy experienced an important change, which has affected Italy's FDI, but cannot have influenced the associations existing until 1970.

Conversely, for the cross section of 2005 we also consider the contemporary stock of associations of 2005: $ASSOC_{i2005}$. Also in this case, the dataset has been presented in Section 3. Unfortunately, data are not available on the stock of associations in 1990.

The partner countries' GDP, (i.e GDP_{it}) is meant to capture the extension or “demand” potential of their markets, while their per-capita GDP, $PCGDP_{it}$, is a proxy for those economies' productivity, or relative endowments of factors. Italy's GDP (i.e $ITGDP_t$) represents the dimension of the Italian economy. Higher levels of GDP in the partner countries' and Italy's economies are expected to positively affect FDI. The expected coefficient of the per-capita GDP depends on the “vertical” or “horizontal” character of investments. Horizontal FDI are made by firms to sell abroad the same goods sold at home, hence a higher per-capita GDP will attract more FDI, while vertical FDI follow a cost-saving strategy, and will flow to labour-abundant or specialized-factors countries. In this case the expected coefficient is negative (Barba Navaretti and Venables, 2004; Markusen, 2002).

$OPEN_{it}$ is the share of exports plus imports on country i 's GDP at time t . It is a measure of the commercial openness of countries. In principle, FDI and trade can be complements or substitutes, hence no a-priory assumptions are made on the coefficient of this variable.

$DIST_i$ is the distance between country i 's capital city and Rome (km), which captures the role of proximity in affecting investment decisions and other investment costs that increase with distance. Hence, the expected sign is negative.

GOV_i is an index of the quality of institutions and governance, which we have derived from Kaufmann, Kraay and Zoido-Lobaton (1999) this index's values are a positive function of civil liberties, political rights, independence of the media, political stability, quality of bureaucracy, supply of public services, effectiveness and predictability of judiciary institutions and enforceability of contracts, and a negative function of regulatory burdens on foreign trade and business development and corruption.

As a proxy of “culture”, we include a variable on religion: CH_i is the share of people of Christian religion, including the Orthodox, in the overall population of country i . A common market and

institutional similarity role is captured by the dummy EU, that equals to 1 if a country is a member of the European Union in 1990 (EU) and equals to 0 if not. This variable captures Italy's different propensities to invest (or receive investment) into (or from) the EU area. We expect positive coefficients for GOV, CH and EU.

As stated above, social capital is supposed to evolve slowly over time, while the economic and institutional events occurring in the world economy after 1970 and during the time span 1990-2005 should be captured by the non –cultural variables of the model.

5. Results

In Tables 2 and 3 we present the estimation results (OLS) for Italy's inward and outward FDI respectively. In all the specifications, the explanatory power of the regressions is very high: in the inward FDI regressions, the adjusted R^2 ranges from 0.73 to 0.77, while in the outward FDI equations it varies from 0.74 to 0.80.

As stated above, the gravity model outlines the determinants of international investment decisions. GDP and per-capita GDP of the partner countries, Italy's GDP, the degree of openness of the economy have both cross sectional and time series heterogeneity, while $DIST_i$, GOV_i , CH_i , $ASSOC_i$ only change across countries i , but not over time. These latter variables work as country-specific dummies. Instead, $ITGDP_t$ changes only across time and works as a time specific dummy. To avoid multicollinearity with these variables, we do not use *fixed effects* in the pooled estimation. All the statistically significant variables (i.e partner countries' and Italy's GDP, openness, distance, Italian associations and EU) have the expected signs. The dimension of their effect on FDI (in and out) is quite stable across specifications. Higher partner countries' and Italy's GDP, i.e higher “demand” potential, boost international investment. The degree of openness positively influences the investment decisions suggesting that FDI and trade are complements and not substitutes. The distance always has a negative effect confirming that there are investment costs that increase with distance. The proximity and historical common market area (EU dummy) plays a positive role on

investment decisions, while the quality of institutions (GOV), cultural and religion similarity (CH), do not influence the propensity to invest.

Table 2 – Determinants of the " FDI by other countries into the Italian economy (inward FDI)

	(1) Pooled regression	(2) Pooled regression	(3) Pooled regression ♦	(4) Cross-Section regression: 1990	(5) Cross-Section regression: 2005	(6) Cross-Section regression: 2005
Constant	-15.41(-3.60)***	-13.35 (-3.20)***	-15.58 (-3.61)***	-13.34 (-2.52)**	-2.34 (-0.711)	-2.91 (-0.94)
Foreign GDP: GDP_{it} (logs)	1.08(4.47)***	0.96 (4.24)***	1.10 (4.18)***	1.47 (3.30)***	0.89 (3.66)***	0.95 (3.89)***
Italian GDP: $ITGDP_t$ (logs)	1.33 (1.86)*	1.66 (3.86)***	1.61 (2.85)***	Omitted for collinearity	Omitted for collinearity	Omitted for collinearity
Foreign GDP percapita: $PCGDP_{it}$ (logs)	0.81 (1.99) **	0.96 (4.24)***	0.61 (2.84)***	0.82 (3.00)***	0.40 (1.87)*	0.45 (1.93)*
Degree of openness: $OPEN_{it}$ (logs)	0.71 (1.45)		0.63 (1.32)	1.34(1.69)	0.48 (0.99)	0.33 (0.63)
Distance: $DIST_i$ (logs)	-0.85 (-2.46)**	-1.02 (-3.25)***	-0.86 (-2.39)**	-0.52 (-1.21)	-0.57 (-1.80)*	-0.52 (-1.72)*
Share of Christians: CH_i	-0.05 (-0.063)					
Governance: GOV_t	-0.38 (-0.59)					
Dummy: EU	0.84 (1.51)		0.74 (1.35)	0.22 (0.24)	1.51 (2.39)**	1.49 (2.16)**
Italian associations, 1970: $ASSOC_{i1970}$ (logs)	0.42 (3.75)***	0.36 (2.90)***	0.41 (3.36)***	0.32 (1.75)*	0.40 (3.55)***	
Italian associations, 2005: $ASSOC_{i2005}$ (logs)						0.33 (3.15)***
R ² -adjusted	0.77	0.75	0.77	0.73	0.75	0.75
AIC	2135	2176	2135			
BIC	2178	2202	2170			
HQC	2152	2187	2149			
N. Observations	550	551	550	38	46	49

Notes: *** 1%, ** 5%, * 10% significance level. The t-value in parenthesis is based on the White's heteroskedasticity robust standard errors. AIC, BIC and HQC are *information criteria* for model selection. The optimal model ♦ minimises these criteria.

Table 3 – Determinants of the FDI from Italy into other countries (outward FDI)

	(1) Pooled regression	(2) Pooled regression ♦	(3) Cross-Section regression : 1990	(4) Cross-Section regression : 2005	(5) Cross-Section regression : 2005
Constant	-8.97 (-4.00)***	-8.88 (-4.01)***	-3.52 (-0.80)	4.19 (2.79)***	4.59 (3.27)***
Foreign GDP: GDP_{it} (logs)	0.97 (6.19)***	0.96 (8.28)***	0.93 (4.023)***	0.74 (6.76)***	0.81 (6.81)***
Italian GDP: $ITGDP_t$ (logs)	1.25 (3.93)***	1.32 (4.88)***	Omitted for collinearity	Omitted for collinearity	Omitted for collinearity
Foreign GDP percapita: $PCGDP_{it}$ (logs)	0.05 (0.20)				
Degree of openness: $OPEN_{it}$ (logs)	1.10 (4.29)***	1.07 (4.30)***	0.97 (1.80)*	0.65 (2.85)***	0.54 (2.19)**
Distance: $DIST_i$ (logs)	-0.65 (-4.04)***	-0.65 (-4.56)***	-0.25 (-0.83)	-0.67(-5.04)***	-0.70 (-5.98)***
Share of Christians: CH_i	0.14 (0.27)				
Governance: GOV_t	-0.71 (-2.35)**	-0.6 (-3.34)***	-0.75 (-1.90)*	-0.19(-0.89)	-0.15 (-0.72)
Dummy: EU	0.78 (2.16) **	0.82 (2.52)**	1.36 (2.29)**	1.06 (2.86)***	0.91 (2.08)**
Italian associations, 1970: $ASSOC_{it1970}$ (logs)	0.47 (7.22)***	0.55 (8.32)***	0.76 (6.81)***	0.39 (5.68)***	
Italian associations, 2005: $ASSOC_{it2005}$ (logs)					0.32 (4.63)***
R ² -adjusted	0.76	0.76	0.74	0.80	0.79
AIC	1673	1670			
BIC	1716	1704			
HQC	1690	1683			
N. Observations	528	528	38	46	50

Notes: *** 1%, ** 5%, * 10% significance level. The t-value in parenthesis is based on the White's heteroskedasticity robust standard errors. AIC, BIC and HQC are *information criteria* for model selection. The optimal model ♦ minimises these criteria.

Results on our variables of interest, migrants' associations, confirm our expectations: both those existing in 1970 and in 2005 promote the flows of the home country's bilateral FDI. In the pooled regressions, the effects of the associations existing in 1970 on the inward FDI equal 0.41 (at a 1% significance level) (Model 3, Table 2): an 1% increase in the stock of Italian associations abroad (logs) increases the FDI in Italy by 0.41%. The effects of the associations of 1970 on the outward FDI are even higher and equal 0.55 (at a 1% significance level) (Model 2, Table 3): an 1% increase

in the stock of Italian associations increases the home country's investments abroad by 0.55%. These results give further support to our hypothesis that the associative activity of a diaspora is a good proxy of a transnational social capital, which boosts bilateral FDI with the origin country.

We now check for changes in the effect of $ASSOC_{i1970}$ on FDI over time. Specifically, we estimate two cross-section regressions regarding the years 1990 and 2005. For Inward FDI (Table 2), the effect of associations $ASSOC_{i1970}$ on investment decisions does not change substantially overtime: the estimated elasticity ranges from 0.32 in the 1990 (Model 4) to 0.40 in the 2005, (Model 5). The stable role of the social capital on inward FDI is also confirmed by the estimated effect of $ASSOC_{i2005}$ on FDI, that is 0.33 (Model 6).

For Outward FDI (Table 3), the elasticity ranges from 0.76 to 0.39 when $ASSOC_{i1970}$ is considered (Model 3 and 4, respectively), while it is 0.32 when $ASSOC_{i2005}$ is used (Model 5). This outcome suggests a diminished impact of past and current social capital (proxied by the past and current stock of associations) on outward FDI. The results of this investigation on time variations confirms that the effect of associations on FDI are always positive and statistically significant. The interpretation of these findings can, however, be only tentative. The lower coefficients of the 2005 associations relatively to those of 1970 may indicate that especially those 'historic' and long lived, located in the traditional countries of emigration, exert a strong effect on the home country's foreign investments. This seems to be true especially for the outward FDI, which, after the fall of the Berlin Wall and the opening to trade of new markets, have started to be directed also to the Eastern European and Asian countries. The associations existing in these areas of the world are generally younger than those existing in the traditional investments' markets and may have, therefore, developed less valuable links and interactions. The inward FDI in Italy still originate especially from the Western Economies, where the older associations are located and continue to exert their influence.

6. Conclusion

The recent empirical literature has found the effects of migrant links on international trade and FDI to differ between countries and ethnicities. The influence of diasporas have been until now considered as potentially stronger than those of aggregates of unconnected migrants, but in most cases the proxies utilized have been the same: the number of migrants.

In this paper we analyse the influence of an important diaspora, the Italian one, on the bilateral FDI of the home country by using a proxy seldom utilized: the associative activity of emigrants. Associations are connective and structured nodes of networks, which in the international context denote the existence of a transnational social capital.

In the Italian case, associations abroad have proliferated since almost the start of the mass migration phenomenon. In some cases, as the one described in the paper, the number of associates has been huge and the association's life quite long. These cases concern especially Western countries of historical emigration. Moreover, Italian associations abroad are characterized by strong cultural and even institutional ties with the home country.

We find that associations abroad positively and significantly affect the home country bilateral FDI, inward and outward. In the pooled regressions, we find the older associations of our dataset, existing in 1970, to have stronger effects than the more recent ones, of 2005. When measured separately, we find the effects of the older associations, of 1970, to be stronger on the older outward FDI, of 1990, than on to the more recent FDI, of 2005, while they are more similar through time for the inward FDI. This latter result may suggest a weaker effect of the associations of the historical countries of emigration on the more recent outward FDI, which are now directed also to the countries that have opened to world trade after the fall of the Berlin Wall. Differently, the inward investments in Italy still originate prevalently in Western countries, those of the older emigration and associations.

This paper policy implications are that developing countries with an important number of emigrants abroad should adopt policies that strengthen ties with the diaspora. These ties are reinforced by

inclusive citizenship laws and, as shown in this paper, by the institutional support of the associative activity of emigrants. Initially, associations linked to the home country will mostly provide emigrants with protection against adversities, but with the passage of time they will become vehicles of bilateral economic interactions and, in particular, of foreign investments.

Appendix

Table A1. **Data and Sources**

<i>Data</i>	<i>Source</i>
<i>Degree of Openness: export+import / GDP</i>	Center for International Development at Harvard University. CID data sets.
<i>Italian associations abroad (stocks)</i>	Ministero degli Affari Esteri, <i>Associazioni italiane all'estero</i> , Rome, s.e., 1972; Ministero degli Affari Esteri, <i>Associazioni italiane all'estero</i> , CD-Rom, Rome, 2007.
<i>Partner countries' GDP and Per capita GDP: current prices, U.S. million dollars</i>	<i>World Economic Outlook</i> , IMF Available on www.imf.org
<i>Italy's GDP : current prices, U.S million dollars</i>	<i>World Economic Outlook</i> , IMF Available on www.imf.org
<i>Foreign direct investment inward and outward (stocks): current prices, U.S million dollars</i>	OECD International Direct Investment Statistics - International direct investment by country Vol. 2005 release 01 and UNCTAD WID Country Profiles and National Statistics
<i>Distance</i>	The great circle distance in km between capital cities, which is available on http://www.wcrl.ars.usda.gov/cec/java/lat-long.htm .
<i>Religion: % of Christians (Roman Catholics, Greek Catholics, Protestants, Anglicans, Lutherans, Orthodox and other Christians) on population (1990-2004 average)</i>	<i>The World Factbook</i> , Central Intelligence Agency.
<i>Governance indexes (1990-2004 average)</i>	Kaufmann, D., Kraay, A. and Zoido-Lobaton, P., 'Governance Matters', <i>Policy Research Working Paper 2196</i> , Washington, The World Bank, 1999.

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