# DETERMINANTS OF IMMIGRANTS EARNINGS IN THE ITALIAN LABOUR MARKET: THE ROLE OF HUMAN CAPITAL AND COUNTRY OF ORIGIN

## *Aim of the Paper*

The aim of the present work is to study the determinants of immigrants earning and incomes in the Italian labour market. We will focus on the role played by human capital, controlling for many socio-demographic characteristics, by using the Italian survey on "Income and living conditions of foreigners". According to our theoretical framework, human capital is distinguished in two main specific components. On the one hand we consider education attainment, and on the other hand we take account job experiences and on-the-job training. We will distinguish between human capital experience obtained in the country of origin and in Italy. Our main purpose is to analyse the impact of human capital on immigrants wages, and to also assess whether wages differential across immigrants depend on their country of origin.

## *Introduction and Relevance*

Studying immigration in the Italian labour market is a matter of great interest, as Italy has become in a relatively short period of time a country with significant migration flows in the international context (OECD, 2008). The phenomenon started to assume valuable dimensions in 1970, and became an essential element characterizing Italian demographic processes in the first years of the XXI century: since the end of the 1970s Italy moved from being an out-migration country to being a foreign immigration one.

Migratory flows of people coming from less developed countries and Central and Eastern Europe consistently increased in recent years. The growth of the stock of immigrants was particularly intense between 2002 and 2007, rising steeply from about 781,000 foreigners (1.4% of the population) in 1991 to about 2,950,000 (5.0%) in 2007.Given the magnitude of the phenomenon, extensive research is needed to devise strategies and immigration policies in order to guarantee economic well-being and social stability.

In this context, factors explaining immigrant wages levels are of special interest. Among them particular attention will be devoted to returns to immigrants endowments of human capital, which is their primary – and, in many cases, only – disposable asset.

## *Theoretical Background: the Role of Human Capital*

The emergence of international migration as a basic structural feature of nearly all industrialized countries over the past 30 years gave rise to an intense theoretical debate focused on the study of the forces driving and characterizing the migratory processes. At present, there is no single, coherent theory of international migration, only a fragmented set of theories largely developed in isolation from one another, and often segmented by disciplinary boundaries, exist.

The theoretical basis of many migration studies is the Hicks theory of wages, based on the hypothesis that "differences in net economic advantages, chiefly differences in the wages, are the main causes of migration" (Hicks, 1932). Migrants evaluate the cost and benefit of migration before leaving their origin countries and then decide on the basis of their economic interests. Thus one of the main reasons of migration is economic motive (Ravenstein, 1885).

In such a context it is fundamental to take into account the economic conditions of immigrants in the host countries, with particular reference to the determinants of their wages, in order to understand if their need of economic stability is met.

Studies on the elements determining the economic performance of immigrants, and on their wage differential, find a common theoretical background in the human capital theory, where wage disparities between groups are attributed to the differences in productivity relevant characteristics.
Human capital has been considered a key factor in the determination of individual wages and their growth over time (Card, 1999; Psacharopoulos and Patrinos, 2002). Consistent with this perspective, most of the analyses of the situation of immigrants within their host countries' labour markets has focused on their human capital endowment. Following Chiswick (1978) and Borjas (1985), numerous studies have shown that immigrants have an earnings disadvantage upon arrival in the destination country. This phenomenon is explained by the immigrant's lack of human capital specifically suited to the labour market of the receiving country. During the period of residence in the host country, immigrants accumulate country-specific human capital (which is particularly significant in the first years of residence), thereby narrowing the initial earnings gap.
Thus, the wage disadvantage experienced by immigrants in a new country is generally attributed to the limited transferability of the human capital they have already acquired in their home country (Chiswick, 1978; Chiswick and Miller, 1985, 2007; Friedberg, 2000).
In this analysis framework, the origin of the human capital assumes fundamental importance as immigrants education, training, work experience and skills obtained in the countries of origin may vary (both from a qualitative and a quantitative point of view) on the basis of cultural and socio-economic background, and can be very different when compared to human capital collected in the host country. This is particularly true when comparing returns on schooling, and work training and experience of immigrants from developed and less developing countries, but also when comparing the different geographic areas which the less developed countries belong to. Differences seems thus to depend on the levels of economic development, as well as on linguistic, institutional and cultural backgrounds distance among countries.
Immigrants wage progress occurs as a function of the length of their stay in the host country, because experience and skills acquired in the hosting labour market is more valuable than experience abroad, which has a limited transferability (except in the case of immigrants from countries with socio-economic background similar to the one characterizing the destination country).
The aim of the present paper is therefore to study the determinants of immigrants wages by starting from the hypothesis that skills valuable in one labour market may not raise productivity in another labour market (Schmidt, 1997), and hence may not be rewarded equally in terms of earnings. Therefore we want to test the hypothesis that returns to immigrants human capital vary not only for immigrants and natives, but also according to where the human capital has been obtained.

***Metodological Issues***

The starting point of our immigrants wages determinants analysis is the Chiswick (1979) seminal paper on immigrants earnings in which the wage equation is expressed in the following form:

$$w_i = \alpha + \delta \cdot ysm_i + \beta_1 \cdot sch_i + \beta_2 \cdot potexp_i^f + \beta_3 \cdot potexp_i^{f^2} + \gamma \cdot X_i + \varepsilon_i \qquad (1)$$

where $w_i$ corresponds to the wage logarithm for individual *i*, the variable $ysm_i$ indicates the number of years since arrival in the host country, the variable $sch_i$ represents the number of years of schooling and the variable $potexp^f_i$ denotes the number of years of foreign potential labour market experience which is squared, as is usual in the literature. $X_i$ is a vector that represents other individual characteristics which have an influence on wages (gender, marital status, legal status in the home country, region of residence, sector of employment, *etc.*) while $\varepsilon_i$ is a random error term.
The limit of the above presented wage equation is that it does not distinguish, and thus separately estimate, foreign-obtained from home-obtained human capital because ($sch_i$ and $potexp^f_i$) they are treated as homogeneous. In this perspective, the returns to immigrants education and labour market

experience obtained abroad equals the returns to human capital they accumulate in the destination country, and the relative return to immigrants human capital obtained in their home and in the host country is the same for education and experience. More specifically, as indicated by Borjas (1999), Friedberg (2000) and more recently by Skuterud and Su (2008), equation (1) seems to be a restricted specification of a broader model that breaks down returns to schooling and experience according to whether they have been acquired in the home or host countries.
In order to overcome the above restrictions, it is useful to expand equation (1), distinguishing between education completed in home and host countries, and to break down years of experience between home and host countries as well (Friedberg, 2000):

$$w_i = \alpha + \beta_1^f \cdot sch_i^f + \beta_1^h \cdot sch_i^h + \beta_2^f \cdot potexp_i^f + \beta_3^h \cdot (potexp_i^f)^2 + \beta_2^h \cdot potexp_i^h + \beta_3^h \cdot (potexp_i^h)^2 + \gamma \cdot X_i + \varepsilon_i \quad (2)$$

where the superscripts *f* and *h* refer to foreign and home acquired human capital, respectively.
As said before, one aspect of particular interest in the immigration literature is the existence of wage differences among immigrants depending on their geographic areas of origin.
In order to evaluate whether these differences are also due to specific-country related components of the human capital, model (2) will be separately estimate according to immigrant's areas of origin. Developed and developing economies will be distinguished. Within the category of less developed economies, a further breakdown will differentiate among immigrants from Africa, Eastern Europe, Asia, Latino-America, and the rest of the world.
The model parameters will be estimated by means of OLS regression. The estimation process will take into account the possible existence of bias in sample selection, by means of the two-stage Heckman (1979) correction.

***Data sources***

The data used in this paper are taken from the sample survey on "Income and living conditions of families with foreigners" that was carried out by the Italian National Institute of Statistics (ISTAT) in 2009. This sample survey was designed and implemented following the EU-SILC (European Union Statistics on Income and Living Conditions) which is being conducted, starting in 2004, on the basis of the European Union regulation. The EU-SILC is an annual survey which provides micro data on a wide range of social indicators including income, poverty, social exclusion and living conditions. It represents one of the main reference sources for comparative statistics on income distribution, social exclusion and poverty at the European level.
The survey on "Income and living conditions of families with foreigners" takes its essential methodological aspects (questionnaires, survey techniques, methods of correction, imputation, data integration, etc.) from the EU-SILC design. In these terms, the observation units are both households and individuals. As in the EU-SILC design, households are clusters of individuals and all the members of a selected household are eligible for inclusion in the sample. However, the sample survey needs to be adapted in order to take into account the specific characteristics of the foreign population. At the end, the selected households with foreigners can be analyzed by citizenship and place of residence and directly compared to the Italian ones in the EU-SILC sample. The sample includes 6,014 households and 15,036 individuals. The collected variables refer either to household or to individual information. At household level, four domains are covered: basic data, housing, material deprivation and income. The personal takes into account: basic/demographic data, data on the migratory project, education, health, labour and income.

***Expected results***

The present paper aims at examining the determinants of immigrants wages in the Italian labour market, addressing special attention toward the role played by human capital.
Specifically our purpose is to verify that the human capital obtained from the home country is not equivalent to human capital acquired in the host country, due to limited transferability of skills and imperfect compatibility of home and destination labour markets.
We expect to find evidence for heterogeneity across immigrant groups, due to the cultural and socio-economic background distance across the immigrants countries of origin. In particular, we want to verify whether immigrants from high-income countries earn the highest returns to their foreign human capital than the other groups. In this perspective, we want to assess the importance of cultural and socio-economic compatibility of the origin and destination countries of immigrants, as it can determine the transferability of human capital.

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