What drives migration moves across urban areas in Spain?
Evidence from the Great Recession

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Resumen:

Migration flows have traditionally occurred as a result of the pursuit of personal improvement. Achieving better personal and environmental conditions has highly motivated individuals to move from one place to another over short and long distances. In this regard, climate, war, politic and economic factors have been found key determinants in the migration decision. For the developed economies, literature has frequently resorted to economic differentials to explain migratory flows. Ravenstein (1885) pioneering work acknowledged the importance of economic disparities to
understand people movements. In this sense, Hicks (1932) and Bartel (1979) pointed out that wage differentials boost people to move to areas with higher salaries. Greenwood (1975, 1985) went beyond and considered migration phenomenon is mainly due to the job seeking process. He highlighted that the areas with lower unemployment rates and higher salaries strongly attract migrants. However, this disequilibrium view was put into question when other analyses; among we find the studies of Graves (1976, 1979, 1980, 1983), Marston (1985) and Knapp and Graves (1986); showed that climatic conditions and natural and social endowments encourage people to locate in areas where economic and labour market conditions are relatively worse. These both approaches, seen as competitors for decades, were reconciled by recent literature around the utility maximization principle, which supposes that migration flows are not only due to the specific attributes of the areas, but also the value that individuals give to these attributes, which in turn depends on the needs and preferences of individuals and households.

The utility maximization principle justifies the different results that recent literature has obtained for Europe and the US regarding their internal migration processes. In the US, people tend to be much more mobile than in Europe. Disparities in the economies of Europe and the US as well as the cultural, social and economic heterogeneity among regions in Europe explain these heterogeneous patterns of migration (Rupasingha et al., 2014). Besides, the main motivations that lead migration in the U.S. also differ from those observed in Europe. Whereas in the U.S, Partridge et al. (2008), Partridge (2010) and Faggian et al. (2012), among other analyses, find that natural amenities highly influence people movements and attribute to employment opportunities a secondary role; in Europe, economic and labour market differences among regions are key determinants of migration. Evidence on this regard is obtained by Biagi et al. (2011) and Etzo, (2011) for Italy. In these analyses unemployment rate and per capita GDP differentials are found relevant factors to explain migration flows from the relatively poor South to richer regions in the North. For Germany, Hunt (2006) highlight the influence of wage differentials to attract young skilled workers from east to west regions. Besides, Détang-Dessendre et al. (2015) recent analysis for 88 French labour market areas obtains a high influence of employment opportunities on people moves, but also on commuting flows.
In Spain, internal migratory flows respond to the patterns observed for most countries of the European Union. The large economic disparities between regions have led to disequilibrium factors have traditionally played a relevant role as determinants of population movements throughout the territory. In a historical review, Bover and Velilla (1999) reported that during sixties and seventies massive movements took place from the poorer regions to Madrid, Catalonia and Basque Country, the most developed regions. Santillana (1981) and, later on, Rodenas (1994) found that wages and employment opportunities determined these migratory flows. Nowadays, disparities still persist and more recent analyses such as Devillanova and García Fontés (2004), Juarez (2000), Maza (2006), Maza and Villaverde (2004) and Mulhern and Watson (2009, 2010) show that income and labour market differentials remain as relevant factors. However, migration phenomenon has varied to a great extent over years. First, the number of interregional migratory flows currently registered is much lower than in sixties and seventies, which points out that the appeal of labour market differentials have diminished. Also, during eighties and early nineties, a period of high economic instability, poorer regions that had previously been net outmigration areas became net immigration areas and the opposite occurred for richer regions (Bentolila and Blanchard, 1990; Bentolila and Dolado, 1991; and Antolin and Bover, 1997). Antolin and Bover (1997) attempted to unmask the enigma and analysed if labour market variables still remained as significant factors of internal migration. They included a great variety of personal characteristics in the analysis to disentangle the wrong signed effect of the labour market variables during this recessive period. They obtained that regional unemployment induced people to migrate if they were unemployed, but not registered. However, the effect of regional unemployment was very small and just significant after including many controls. Regarding the effect of wage differentials, the authors obtained less conclusive results.

These different results obtained over the years and for the expansive and recessive periods in Spain lead us to wonder about the role of labour market factors on internal migration during the recent economic downturn. This economic recession that have taken place from 2008 have particularly affected Spanish economy and led to a decline in the economic activity of 15.5 percentage points in just six years. Besides unemployment rate has increased in 18 percentage points and the real wages decline
accounted for 7.2 percentage points. In this context, only 1.139% of the population left the country, of which less than 14% were Spaniards. Although this figure represents the highest volume of outflows registered for decades, it can be still considered a small quantity given the current situation. Regarding internal movements (NUTS 3), they were even lower. These migration flows represented the 1 percent of total population and were surpassed by external migration records in 2012 for the first time since the Great Recession began. Nevertheless, although the recession has been generalized, Spanish regions have suffered to a different extent the effect of the shocks (Cuadrado-Roura and Maroto, 2016; Melguizo, 2015) and regional differences still persist. Thus, analysing the role of the labour market factors as determinants of internal migration during the recent economic recession is a relevant issue to be addressed.

In order to do so, we apply a gravity model of migration taking into account the period that ranges from 2008 to 2013 and the territorial units that best represent integrated labour markets, which are the Functional Urban Areas (FUAs). This territorial unit was defined by the European Commission and the OECD in 2011 in the Urban Audit project. A Functional Urban Area consists of a city, which is defined on the basis of population and density criteria, and its commuting zone. In Spain, 45 FUAs have been defined and they involve 952 municipalities. These urban areas just represent slightly more than 10 percent of the national territory. However, in 2014 they accounted for over 61 percent of population and about 68 percent of employment. The information that we use to perform the analysis involves a wide range of datasets that is obtained from several sources. Regarding the dependent variable, migration flows data are obtained from the Residential Variation Statistics (EVR). This micro dataset contains information on the individual movements that imply a municipality change and it is drawn up on the basis of municipality registers data. Residential Variation Statistics provides high-quality information due to the application of advanced control and data collection procedures, but also because of the Continuous Register implementation, which updates immediately the residential variations information. The major criticism of this data is that it collects just the registered moves (Rodenas and Marti, 2009). However, in Spain, registration certificate is mandatory to have access to basic social and municipal services and exercise the right to vote, which incentives movers to obtain it.
With respect to migration potential factors, many information sources are exploited to obtain the data. Population information is obtained from the Spanish Continuous Register. Besides, we resort to the Spanish Social Security to get information on employment and the Wage Structure Survey to know average income. The workers affiliation records to Social Security provide data on registered employment at municipality level. Information on housing costs is provided by Idealista, a web based real state company that works at national level whereas the Spanish Meteorological Agency (AEMET) provides information on climate. Finally, information on distance between pair of FUAs is obtained from Google Maps.

Following the maximization utility principle, migrants decide where to go attending the relative area factors endowments and their individual preferences for these factors. an individual decides to move if the expected utility of a destination area \( j \) is higher than the expected reported utility of the origin area \( i \) plus the costs of moving, frequently proxied in the literature by the distance between \( i \) and \( j \) locations. Aggregating all the decisions to move, we express a gravity model in a multiplicative way. Following the work of Santos Silva and Teneyro (2006), we estimate the determinants of migration using the Poisson Pseudo Maximum Likelihood, as the estimation of the log linear transformation of the gravity model using Ordinary Least Squares (OLS) entails problems in the presence of heteroscedasticity and also if the dependent variable register zero migration flows between pairs of regions.

Preliminary results point to employment rate does not exert any influence on migration among FUAs during the recent economic recession. However, wages significantly affect migration and they do it in the expected way. Higher wages at destination attract migrants whereas lower wages at origin also boost migration. This is obtained taking amenities, housing costs and the traditional gravity variables as controls, in addition to time and destination fixed effects.
References:


