## A Study on the Spatial Distribution of Mexican Population

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### Abstract

The classic economic theory supposes that the agents can determine with certainty the occurrence of events and anticipate the utility in front of results which will provoke different future events. Agents have the capacity to compare alternatives and are capable to choice in a coherent way the one that represents the best utility. This paper aims to study the contemprory issues in economic shrinkage in Mexico.

Keywords: Economic, Macroeconomic, Mexico, shrinkage

#### 1. Introduction

From a macroeconomic perspective, economic shrinkage is analyzed according to its functions in the economic system in which it occurs. Macroeconomics and neo-classical models explain the shrinkage decision as a cost-benefit calculation (Davis, Stecklov y Winters, 2002, p. 292). The macroeconomics theory departs from the assumption that economic shrinking contributes to the equilibrium of local and regional markets, such as labor and real estate markets or economic sectors with patterns of specific territorial localization. The classic model of sector equilibrium (Yúñez, 1978; Renis y Fei, 1961) tries to explain rural shrinkage due to movements of labor force to the urban industrial sector of high productivity and better wages. Disarrangement between periods of growth and periods of lack of growth leads to disorders in a steady community growth or shrinkage. The velocity of these processes depends of capital accumulation rate in the modern sector. Still now, theories and conceptual frameworks consider shrinkage of localities as an adjustment mechanism of economic and labor disequilibrium. (Maré y Timmins, 2000, p. 1). However, there are studies that doubt about the homeostatic capacity of shrinkage to equilibrate relative salaries and to harmonize employment levels or to assess sector productivity. Aroca (2003) has found that all the revised studies use diverse methodologies and arrive to the same conclusion: The market is not enough to equilibrate regional differentials in employment.

### 2. Theory of social processes and public action

One strand in the research of the economic development shrinkage processes is indirectly achieved by the analysis of social, political and economic development using the theory of social processes. Sociology recognizes the role of rationality and the importance of aggregated disequilibria as causes leading to social processes and individual decisions. The theory of social processes contains a series of concepts which mediate without eliminate or substitute the primacy of economic factors to explain the shrinkage phenomena. Social processes also recognize as a force the orientation of the action and the distinction of diverse types of rationality behind this orientation: Means to ends, means to values, traditional or routine, charismatic (Weber, 1992). Other force is the motivations no conscious discovered and underlined by Freud and the psychoanalysis (Alsted, 2001); although these motivations are related to the heterogeneity of economic preferences. Also, the social construction (Berger y Luckmann, 1968) and the influence of external factors such as group of pairs, media, power and authority, etc., make complex the individual evaluation of behavior from costs and benefits analysis. Shrinking and decline of cities can be understood as a process or decisions determined by public action or inaction.

Political scientists concentrate in the sense and effects of population policies, and legal and managerial dispositions that limit displacements and mobilizations of people, direct incentives to promote or avoid migration displacements, investments and policies of sectors oriented to spatial redistribution of people, local government actions, etc. Other processes promote shrinkage and decline of cities, such as governance crisis, internal armed movements, political violence, etc. Some explicit restrictions derived from public action, such as prohibition of population of protected areas by historical, cultural or environmental reasons, dangerous areas exposed to natural catastrophes, etc. The hypothesis that territorial disparities of natural growth are the responsible of population transformations is rejected. There is evidence that factors which drive migration are the clue. The research and study of shrinkage in México is focused mostly on patterns and tendencies of the population spatial distribution, internal and external migration and other expressions of mobility, and maintain some specificity for the relevant actors in the processes of spatial occupation according to the rural and urban characteristics of localities. Internal and external migration is a decisive factor in territorial distribution, taking into consideration the low fecundity rate and contextual transformations of the economic and social considerations.

### 3. Spatial distribution of Mexican population

The actual spatial distribution of population in Mexico is marked by the path dependence based on circular and accumulative causation properly oriented by large investments, irreversible and operating with increasing returns by scope and scale economies. Some areas of high population density were established since the Aztec period. At the international level, Mexico is the 11th among the more populated nations, the second one in Latin America and the 14<sup>th</sup> in territorial extension in the World. Mexican population is unequally distributed all over the Mexican territory. In 1950, the population density was 13.1 inhabitants per square kilometer and 1995 was 46 inhabitants per square kilometer. In population density Mexico occupies the number 8 with 46.7 inhabitants per square kilometer. México is among the ten countries with higher population density (Banco Mundial, 1994). During 1940-1980, the birth rate grew achieving 3.4 percent. The last decades, Mexico has reduced its annual birth rate, expecting to achieve 1.19 percent by the year 2010 (INEGI, 2005). To determine if the population of a city is growing or shrinking, should be calculated with data of natural growth rate of population and added or subtracted the net migration rate. Studies suggest that population redistribution is originated basically by the existence of positive and negative migration and not for the territorial differences of vegetative growth.

In the last 50 years in México have taken place powerful process of spatial redistribution, achieving almost 80 percent of urbanization and maintained demographic stagnation in rural areas and its condition of population expulsion. Among other tendencies presented during the last 50 years, has been the occupation of traditional empty spaces in the Yucatan Peninsula and the adjacent area to the Rio Bravo or Rio Grande in the USA-Mexico border. When many maquiladora (in bound) enterprises of northern Mexico closed as their owners have moved the businesses to China in search of lower costs and higher profits, in a race to the bottom, still the large cities (Tijuana, Mexicali, Cd. Juárez, Nuevo Laredo, Reynosa, Matamoros, etc.) alongside de Mexican border continued receiving migrants from the South of Mexico and central America. Population is more concentrated in the states neighboring Mexico City, the states with important economic and industrial development: Estado de México, Distrito Federal, Veracruz, Jalisco y Puebla, These states account for 10.7% the national territory and have 41.2% of national population.

### 4. Internal conflicts and natural disasters

Internal conflicts and natural disasters have provoked massive displacements of population, affected families, severe social, economic and environmental consequences, and the shrinkage of towns and villages. In the history of Mexico is registered the facts that Mayan cities had been devastated by catastrophes and natural disasters. Some of the Mayan cities, like Tikal, had shrunk and most of them had disappeared. Population displacements from México City to the suburban areas, was incremented from 9 percent between 1950.1960 to 22 percent in 1990-1995 (CONAPO, 1998). A large sector of the population which is unable both to afford rising prices in the center and to find housing in the rest of Mexico City, has been expelled to the neighboring State of Mexico, where commercial builders are developing massive subdivisions of low quality affordable housing This migration influences the depopulation of the center of Mexico City (Tuirán, 2000; Sabatini, 1999; Jordán y Simioni, 1998; Gilbert, 1996; Paviani, 1985). Within the historical processes, the dialectics between the rapid peripheral expansion enhanced by the translation of poor population and gradual of depopulation of central areas in large cities like Mexico and Guadalajara. The orientation and selectivity of this migration makes it a factor of spatial demographic and socioeconomic differentiation and creates socio-spatial and residential segregation.

From the perspective of territorial occupancy, there are manifestations of new forms of residential segregation patterns since the economic crisis of 1980, although it is an old phenomenon and not exclusive of México. In 1970 existed 4000 and by 1996 were more than 100 thousand of these closed urbanizations. The literature on structure of intra urban neighborhoods, colonies and suburban areas has identified opposing forces, although is marked by the real estate market behavior and population policies. Sometimes, these policies and market behavior implies the programmed virtual displacement of poor families to get rid off them from the wealthy residential areas (Villa y Rodríguez, 1997). In Mexico, while the middle class is impoverishing, the higher class looks for closed urbanizations in protected areas. Gated communities legitimize residential segregation, increase inequality and polarization of cities. The sprawling and fragmented Mexican large cities face the challenges to reintegrate the mosaic of segregated settlements and built typologies, respond adequately to the mounting needs for housing and urban space and to alleviate the still increasing housing shortage while at the same time controlling metropolitan expansion. By reinforcing the existing segregation pattern of a rich west and south and a poor north and east, they are the new face of today's urban sprawl in Mexico City's metropolitan area (Potkin, 2002).

## 5. Future steps

The increasing flows of migration inter cities open new challenges for research on tendencies related to residential localization and displacement of population, intra urban segmentation, socioeconomic territorial segmentation, and contra-tendencies such as suburbanization of high income groups in rural areas, etc.

Social and economic stagnation of rural areas can not continue being postponed as the main cause responsible of the accelerated urbanization process, despite the innumerable signals of exhaustion and overuse of absorption capacity of cities (Castells, 1977, p.58; 2002) and the emergent phenomena of local identity projects and dynamism should be recognized.

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