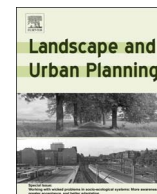




ELSEVIER

Contents lists available at ScienceDirect

## Landscape and Urban Planning

journal homepage: [www.elsevier.com/locate/landurbplan](http://www.elsevier.com/locate/landurbplan)

Research Paper

## Is social polarization related to urban density? Evidence from the Italian housing market

Valentina Antonucci\*, Giuliano Marella

Department of Civil, Environmental and Architectural Engineering (DICEA), University of Padova, Via Venezia 1, 35131 Padova, Italy

## ARTICLE INFO

## Keywords:

Urban density  
Multivariate regression  
Social polarisation  
Housing market  
Economic crisis  
Inequality

## ABSTRACT

The aim of this work is to assess variations in housing market polarization in Italian cities since 2008, during the years of economic recession in Italy. An index of market polarization was constructed and correlated with urban density and socio-economic factors, as proxies for urban development of the Southern Euro countries.

The hypothesis is that social polarization has increased since 2008, when an economic and sovereign debt crisis began, and is negatively correlated with housing market trends in more densely populated cities than in sprawl territories. Multivariate regression on housing price variations since 2008, with a dataset of economic variables concerning 112 Italian provincial capitals, was used to verify the hypothesis, and analysis confirmed that housing market polarization had increased since 2008 and shows significant statistical correlations with urban density, socio-economic characteristics, and housing affordability. Empirical evidence also demonstrates the close relationship among price trends, urban density, and the socio-economic structure of urban populations.

## 1. Introduction

The advantages and disadvantages of urban density versus sprawl have engaged planners, economists and social scientists in a debate over the last century. One point in this debate is whether different types of spatial development favor any particular social structure. From an economic perspective, do allocation choices made by households and firms increase social inequality? Or is the spatial mismatch of cities a sign of social polarization?

These questions led to research on sprawl versus dense growth in the second half of the 20th century, and the globalization of markets and communications at the start of the 21st century has given rise to renewed focus on spatial inequality in relation to income and social inequality. Globalization has changed the role and face of cities. As Wei (2015) put it: “the spatial concentration of foreign capital tends to lead to a polarized process of urbanization and reinforces urban supremacy and regional inequality”.

The global economic crisis, which began in 2007, has certainly focused attention on the rising levels of inequality and its spatial causes and effects in Western countries (Savitch & Kantor, 2002; Stiglitz, 2012) and, since 2008, only a few remarkable studies have described the geography of crisis across countries (e.g., Aalbers, 2009; Martin, 2011).

In Europe, studies have often focused on inequality on national and regional scales to measure the effectiveness of EU policies for convergence between countries and regions (Beckfield, 2009; Bouvet,

2010; García-Peñalosa, 2010; Gottschalk & Smeeding, 1997). However, most of this research rarely considers ‘urban form’ as a factor in inequality and social polarization, either as a driver or as a consequence. The spatial component of the problem merely provides a context.

Our research on spatial inequality provides empirical evidence from Italy. The aim of this work is to assess variation in housing market polarization in Italian cities since 2008, during the years of economic recession. We use this original parameter as a possible indicator of social polarization because housing affordability is one of the main features of inequality between and within cities (Baker, Bentley, Lester & Beer, 2016; Burton, 2003; Sato, 2006). We also correlate this index with urban density, testing whether the urban structure and the various tiers of density are related to housing price trends, both between and within cities.

We analyse 112 Italian provincial capitals using an original parameter, i.e., the index of variations in housing prices between city centers and fringe areas during the period 2008–2015. Multivariate regression analysis linking socio-economic data with urban density was used to measure the relevance of urban structures on this phenomenon. We overcame some of the limitations in surveys on cities in Southern European countries and, taking a broader perspective, investigate how social polarization evolves not only *within* cities but also *between* them. Southern European countries are facing structural economic change and, to date, very little research has concentrated on the new urban geography deriving from the economic crisis (Dong & Hansz, 2016).

\* Corresponding author.

E-mail addresses: [valentina.antonucci@unipd.it](mailto:valentina.antonucci@unipd.it) (V. Antonucci), [giuliano.marella@unipd.it](mailto:giuliano.marella@unipd.it) (G. Marella).<http://dx.doi.org/10.1016/j.landurbplan.2017.08.012>

Received 16 September 2016; Received in revised form 20 June 2017; Accepted 24 August 2017

0169-2046/ © 2017 Elsevier B.V. All rights reserved.

This work is organized as follows: Section 2 reviews the literature on the research topics; Section 3 describes our data and the model; our findings are discussed in Section 4, and Section 5 concludes with a summary and some suggestions for future research.

## 2. Spatial inequality and urban form: a literature review

Inequality – and spatial inequality as one of the main features of inequality – is a contentious matter. For instance, while acknowledging the increasing disparities between and within countries, Deaton (2013) believes that access to health, education, and wealth in general, has constantly grown throughout human history, and argues that inequality is a structural consequence of increasing wealth. Instead, the pioneering studies of Piketty (2003), Saez and Piketty (2003, 2006) and Piketty and Saez (2006), collected in the well-known *Capital in the Twenty-First Century* (2013), predicted long-term growth in income inequality in the United States and European countries. Apart from the theoretical framework adopted, polarization and inequality are undoubtedly correlated, and their spatial component is mostly represented by housing market trends.

Focusing on the role of urban form, some studies examine the relationship between sprawl and income inequality over time (e.g., Wheeler, 2004, 2008), mainly in metropolitan areas in the United States. Margo (1992) measured the correlation between increasing income and populations migrating from the inner cores of cities toward suburban areas in post-war urbanization. Other authors emphasize the prominent role of private mobility in increasing income and racial segregation within less dense metropolitan areas (Fan, 2012; Ewing et al., 2016). The latter authors recently demonstrated with empirical evidence that metropolitan sprawl in the US contributes to the low upward mobility of lower-income residents. Here again, an opposite interpretation and policy solution are offered by Glaeser & Kahn (2004), who state that urban growth and sprawl are almost equivalent and describe them as an irreversible pattern of urban development, at least in the US.

The negative social consequences of sprawl, characterized among others by dependency on personal transport (car dependency), may be tempered much more by subsidies for private transport than by attempts to reduce suburbanization (Glaeser & Kahn, 2004).

Few studies of this kind these have been conducted in Italy (e.g., Acciari & Mocetti, 2012). The topic has been analysed on both national and regional scales, emphasizing the economic structural divide between the northern and southern parts of the country, without considering the influence of cities or urban form.

On an urban level, less research based on income and socio-economic data has been undertaken in Europe than in the US, both between and within cities. In addition, as noted above, little attention has been paid to urban social conditions since the onset of the economic crisis, which profoundly affected cities as regards private and public investments. Italy, like other countries in Southern Europe, has seen severe deterioration in its socio-economic framework as a result of the sovereign debt crisis of 2011, which followed the financial crisis of 2008 in Europe (Dente, 2014). Although housing affordability is associated with social polarization and inequality, including racial segregation (Krivo, 1995; Krivo & Kaufman, 2004), the physical features of urban structures are rarely associated with housing price trends, and even more rarely during a housing market bust phase.

In the urban economic literature, on one hand, the difference between center and fringe area prices is the basis of the neoclassical monocentric city theory, and of studies rebutting it. On the other hand, there is little empirical research on the relationship between urban form and the housing market, and mostly analyses the marginal price of accessibility, amenities (You & Tam, 2004; Ahlfeldt, 2011) and the relevance of wages and income on price trends. These studies often define center-periphery prices as a ‘price gradient’ (McMillen, 1996; Manzoni & Mocetti, 2016; Partridge, Rickman, Ali, & Olfert, 2009;

Waddell, Berry, & Hoch, 1993; Zheng & Kahn, 2008), although we prefer to use the phrase “housing market polarization”, because it is both a descriptive and interpretative concept of the phenomenon. On one hand, we perform a cross-sectional measure of center-fringe areas price variations, not only the gradient between prices in a given year; on the other hand, we adopt this parameter as an indicator of social polarization, which is rarely used in this kind of research. The potential increase in the spatial difference of house prices during a period of recession is a reliable indicator of the evolving social framework, which also helps to test the diverse resilience of cities facing an economic shock (Antoniucci & Marella, 2016). In addition, increasing spatial polarization represents a potential increase in inequality, at least as regards housing affordability, and it is important to assess exactly how urban form is related to the evolution of polarization in cities. Our work contributes to enriching the few research works on spatial inequality related to urban form in Southern Europe, especially in Italy. It also describes the evolution of urban inequality – not in the boom phase of the housing market, which has been analysed much more frequently, but during a period of severe economic recession.

## 3. Measuring social polarization in Italy

In the field of urban economics, there is an abundance of literature on urban density and its allocative advantages for households and firms. The focus of neoclassical economic theory and spatial analysis explores the reasons why land and housing prices are higher in city centers and lower in fringe areas, assuming a monocentric city model (see, among others, Alonso, 1964; Capozza, 1989; DiPasquale & Wheaton, 1996; Fujita, 2010). In the US in particular, although denser metropolitan areas are attractive in terms of wage levels, incomes, skills, and human capital (Glaeser & Resseger, 2010; Glaeser, 2011), less dense suburban neighborhoods farther away from city centers undergo spatial and income segregation in both the richest and the poorest population sectors. To give an example, large parts of Orange County (CA) and Palo Alto (Santa Clara, CA) have both low urban density and two of the highest average per capita income levels in the whole of the US. Conversely, the less dense neighborhoods on the fringe of metropolitan areas reveal lower per capita income, which is also related to racial segregation.

### 3.1. Estimating the polarization index: urban structure and housing markets in Italian cities during the recession

For historical reasons, European cities are generally denser than metropolitan areas in the United States. Italy is an exception: although the country’s territorial structure is based on a thousand cities from an historical, institutional and planning perspectives, the second half of the 20th century has seen urbanization become more and more scattered in the north of the country and along the eastern seaboard. To assess the relationship between housing market trends and urban form, Italian cities must first be classified according to their urban density (Salvati, 2013).

Measuring sprawl and urban density is an elusive and contentious matter. Due to the differing aims of their research work, scholars may assess density in terms of sprawl (Ewing & Hamidi, 2014; Galster et al., 2001; Kasanko et al., 2006; Reis, Silva, & Pinho, 2015; Wheeler, 2008) or urban compactness (Alonso, 1971; Glaeser, Kolko, & Saiz, 2001; Glaeser & Resseger, 2010; Goodman, 2005; Tsai, 2005). However, as discussion on how urban density can be measured goes beyond the scope of this work, we use the most frequent approach based on the number of inhabitants per square kilometer (Burton, 2002). According to the Eurostat survey on the degree of urbanization (2012), 67.6% of Italian towns belong to the lowest urbanization band and are classifiable as rural areas, where 24.3% of the population lives on 72.5% of the territory. Italian cities classified in the first, densest band occupy only 4.8% of the country’s surface area, but their inhabitants account for

Download English Version:

<https://daneshyari.com/en/article/7459703>

Download Persian Version:

<https://daneshyari.com/article/7459703>

[Daneshyari.com](https://daneshyari.com)