



Case Report

Toward a ‘Migrant Trap’? Local Development, Urban Sustainability, Sociodemographic Inequalities, and the Economic Decline in a Mediterranean Metropolis

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Abstract: After years following the breakdown of the Great Recession in Europe, crisis-driven urban shrinkage can be adequately investigated considering changes over time in selected demographic indicators, with a specific focus on migration. Using official statistics and a literature review, the present study documents the inherent demographic decline in metropolitan Athens (Greece) as a response to economic stagnation after a long-lasting expansion. The empirical results of our study delineate metropolitan shrinkage in Southern Europe as a process associated with complex socioeconomic conditions leading to (possibly counterintuitive) demographic outcomes as far as migration trends are concerned. Recession has determined unsustainable economic conditions especially for non-native population segments, promoting both class and ethnic segregation. The negative migration balance in the 2010s led to an intense population decline hitting settlements made already demographically fragile because of low fertility and aging. Athens became a sort of ‘migrant trap’, being progressively unattractive for incoming migration flows—both internal and international—and losing an increasingly high number of non-native residents settling in the area, especially during the ‘gold’ decade of the 2004 Olympics. A sudden reduction in immigration rates reflected both economic (recession) and non-economic (population aging, fertility reduction, and childbearing postponement) factors, causing an incipient shrinkage after secular urban growth. The empirical results of our study add to the traditional literature on ‘industrial cities shrinkage’ in Europe and contribute to (re)formulate short- and medium-term development scenarios in large agglomerations, shedding further light on the role of migration in crisis-driven processes of urban decline in Mediterranean Europe.

Keywords: economic downturns; migration; population shrinkage; social inequalities; Europe



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1. Introduction

Being reflective of a latent (demographic) decline in central cities (Turok and Mykhnenko 2007; Oueslati et al. 2015; Robinson 2017), recent population dynamics have demonstrated that they exert basic implications for policy strategies that address urban sustainability and metropolitan resilience to economic shocks (Seto et al. 2010; Arribas-Bel et al. 2011; Alves et al. 2016). Traditional research has defined and characterized urban cycles, outlining the importance of a comprehensive investigation of metropolitan regions’ socioeconomic dynamics (Boyle 2003; Angel et al. 2011; Aurbout et al. 2018). However, the empirical results of such studies demonstrate the urgent need of novel approaches going beyond

the traditional economic theories and the geographical interpretation of growth as a result of urban–rural polarizations (Buzar et al. 2005; Carbonaro et al. 2018; Salvati et al. 2018a). Research integrating multidisciplinary perspectives with a quantitative analysis of (spatially varying) socioeconomic contexts are, therefore, particularly welcome in both urban studies and regional science (Haase et al. 2010; Kroll and Kabisch 2012; Gil-Alonso et al. 2016).

In this perspective, understanding how demographic processes, economic downturns, and metropolitan cycles interact, contributes to a better definition of mechanisms at the base of regional and local development paths (Reques Velasco and Rodriguez Rodriguez 2000; Rontos 2007; Kelly et al. 2015; Sabater and Graham 2019). It was demonstrated widely how economic downturns led to heterogeneous demographic processes over metropolitan spaces (e.g., García 2010; Pérez 2010; De Rosa and Salvati 2016). More specifically, with economic stagnation stimulating population aging and consolidating a polarized distribution of activities across regions, changes in local job markets and spatially varying conditions for growth were demonstrated to be intrinsically associated with demographic expansion and decline in metropolitan regions (Casado-Díaz et al. 2004; Bontje 2005; Buzar et al. 2007; Camarda et al. 2015; Barbieri et al. 2019).

By experiencing a significant population loss in a given time interval, shrinking cities were popularized in reference to specific socioeconomic contexts (Bayona-Carrasco and Gil-Alonso 2012; Bayona-i-Carrasco and Gil-Alonso 2013; Bocquier and Costa 2015; Batunova and Gunko 2018). In the United States, for instance, some large cities have displayed de-industrialization, human migration, and economic stagnation in recent times (Sevilla-Buitrago 2013; Benassi and Naccarato 2017; Wolff and Wiechmann 2018; Wang et al. 2020a). In Europe, a renewed example of shrinking cities came from Eastern countries at the end of the socialist regime phase, when old industrial regions came under Western privatization and capitalism since the early 1990s (Kabisch and Haase 2011; Chelleri et al. 2015; Krueger et al. 2018). A refined investigation of the negative impact of recession on local communities and regional socioeconomic structures may shed further light on present and future population dynamics in other European regions (Rontos et al. 2016; Salvati and Serra 2016; Stockdale 2016).

Mixing peculiar sociodemographic conditions, processes of shrinkage in the Northern Mediterranean basin were poorly documented with respect to other regions in Europe (e.g., Arbaci 2007, 2008; Martori and Apparicio 2011; Arbaci and Tapada-Berteli 2012). In Southern Europe, a progressive mismatch between population growth, demographic dynamics, household structure, and settlement preferences makes understanding of the mechanisms governing metropolitan development and determining urban decline a particularly hard task (Arapoglou and Sayas 2009; Gavalas et al. 2014; Giner-Monfort et al. 2016). For more than one century, high fertility, young population structures, rising life expectancy, and immigration, together with a slowdown of emigration flows, prevented extensive processes of urban decline (Dura-Guimera 2003; Fol 2012; Carlucci et al. 2018).

Assuming short-term urban expansion as a result of regional demographic processes, population dynamics—especially the migratory component of population balances—were mainly dependent on economic attractiveness, social cohesion, and local development of contemporary metropolitan regions (e.g., Michielin 2004; Liu 2005; Longhi and Musolesi 2007; Mallach et al. 2017). Based on these premises, our study is aimed at defining more precisely the demographic mechanisms at the base of a recent process of metropolitan shrinkage observed in some cities of Southern Europe—a region experiencing the most negative impact of the 2007 recession (Kaika 2012)—and the latent relationship with changes over time in migration flows. Assuming population shrinkage in Mediterranean cities as being intrinsically associated with multidimensional socioeconomic phenomena that affect immigration and emigration rates (Ogden and Hall 2000; Nijkamp and Kourtit 2013; Zambon et al. 2017), the extensive use of multisource indicators from official statistics allows a dynamic representation of metropolitan decline (Morelli et al. 2014; Nelle et al. 2017; Liu et al. 2020). These phenomena were investigated considering together the interplay of long-term demographic factors (e.g., population aging, low fertility) and concomitant short-term

disturbances including crisis-driven emigration and counter urbanization (Repetti et al. 2008; Remoundou et al. 2016; Rees et al. 2017).

A slowdown of international migrations, together with the progressive gentrification of inner cities, formation of new family structures, and the recovery of internal (urban-to-rural) mobility (Schwarz et al. 2010; Serra et al. 2014; Stergiou et al. 2017), have been important forces rebalancing the spatial distribution of population, economic activities, and social functions in metropolitan regions (e.g., Scott and Storper 2015; Lerch 2016; Robinson 2017). Contributing to formulate reliable short- and medium-term development scenarios in large metropolitan regions (Alexandri 2015; Kandyliis 2015; Vinci et al. 2022), the empirical results of our analysis are intended to shed further light on crisis-driven metropolitan shrinkage, keeping in mind the dominant migration patterns and processes as the main factor of urban change under crises (Carlucci et al. 2017; Gounaridis et al. 2018; Maloutas and Spyrellis 2019). Short-haul residential mobility, internal movements (e.g., rural-to-urban), and foreigners' immigration to Greece have been taken as representative of more general population trends in Southern Europe, possibly as a consequence of economic stagnation (Dalakoglou 2013; Souliotis 2013; Morelli et al. 2014). Having experienced the greatest impact of the 2007 recession in Europe, Greece—a traditional emigration country up to the 1970s—was an important hotspot for international migration in the 1990s and the 2000s (Maloutas 2007; Martinez-Fernandez et al. 2012; Gavalas et al. 2014; Bagavos et al. 2018).

Based on these premises, our study investigates crisis-driven urban shrinkage considering changes over time in selected demographic indicators, with a specific focus on migration (Strozza et al. 2016; Tragaki and Bagavos 2019; Wang et al. 2020b). Assuming recession as a cause of unsustainable economic conditions, especially for non-native population segments—promoting both class and ethnic segregation—public data and sociodemographic indicators now available for a sufficiently long time interval before, during, and after the great crisis, allow a coherent and broadly documented investigation of metropolitan shrinkage in Mediterranean cities with uninterrupted population growth in the last century (Hondroyiannis and Papapetrou 2002; Kasimis 2008; Zambon et al. 2018). More specifically, using official statistics and a literature review, the present study documents the inherent demographic decline in metropolitan Athens (Greece) as a response to economic stagnation after a long-lasting expansion (Haase et al. 2014, 2017; Gkartzios and Scott 2015; Kashnitsky et al. 2017). The empirical results of our study delineate metropolitan shrinkage in Southern Europe as a process associated with complex socioeconomic conditions leading to (possibly counterintuitive) demographic outcomes as far as migration trends are concerned (Lauf et al. 2012; Gkartzios 2013; Lerch 2014, 2016).

Following the intrinsic complexity of the sociodemographic issues at stake, this paper is organized as follows. A literature review deals with demographic dynamics, economic downturns, and urban decline, providing a broad, international perspective on metropolitan shrinkage, and a specific focus on Mediterranean cities. The subsequent chapter provides a detailed description of the study area and the background context. Methodological details appropriate to reproduce and generalize the statistical analysis in other socioeconomic contexts were also presented and briefly discussed. The following chapter illustrates the empirical findings of this study. The importance of quantitative approaches based on the analysis of multisource sociodemographic indicators is outlined in Section 4. Finally, the conclusion in Section 5 proposes an original interpretation of metropolitan decline in the Northern Mediterranean region, considering international migration as the basic engine of urban growth.

Literature Review

“Shrinkage has increasingly become a ‘standard pathway’ of urban and regional development in many European cities and regions” (Camarda et al. 2015). Based on a seminal work by Fol (2012), urban shrinkage was intended as “a multidimensional process that combines multiple factors and has various interrelated manifestations”. Alves et al. (2016) qualified shrinkage as “a natural process in the life cycle of a city, alternating with periods of growth”

or as “an extreme event that places cities into a continuous decline process with no return to population growth”. Shrinking cities were popularized in reference to specific socio-economic contexts (Ciommi et al. 2018), e.g., when old industrial regions came under extensive privatization or when some large cities started displaying de-industrialization, increased emigration rates, and demographic stagnation (Sevilla-Buitrago 2013; Wolff and Wiechmann 2018; Wang et al. 2020b). Liu et al. (2020) built up “a multi-dimensional conceptual model involving demographic, economic, and social aspects to explore the varied urban development processes in China, and then conducted empirical studies in 269 prefecture-level cities from 2000 to 2010. (. . .) Although an approximate 12% of the cities in the sample experienced urban shrinkage along multiple dimensions, about 20% of the cities experienced population decline combined with economic growth and positive social development. The diverse urban development processes are closely related to the interplay of the central government’s macro-regional development policies and the different local contexts”.

According to Schwarz et al. (2010), urban shrinkage is intimately associated with de-industrialization, massive population loss, and aging, causing “unforeseen (or unexpected) commercial and housing vacancies in cities”. Wang et al. (2020a) indicate “continuous population loss, massive housing vacancy, and under-use of urban infrastructure” as characteristic elements of shrinking cities. Camarda et al. (2015) argued that “shrinking is generally seen in the literature as a negative phenomenon”. In this perspective, Fol (2012) documented the fall in investment “contributing to a decrease in the number of jobs and a rise in unemployment”, as a consequence of urban decline, coming with “a selective migration process, with the most qualified and the youngest leaving first. As a result, the most vulnerable populations (the poorest, the oldest and those with little education and qualification, and the non-native segment) are most affected by the social effects of unemployment and deterioration in their living standard of living, and are left in a situation of ‘captivity’. Within shrinking cities, low-income neighbourhoods are the first to be hit by decline while, on the urban region scale, socio-spatial inequalities tend to increase”.

Urban decline is “typically related to specific national contexts, installed in distinct explanatory frameworks, based around diverging normative accounts, ultimately leading to very different policy implications” (Haase et al. 2014). According to Döringer et al. (2020), “research on urban shrinkage has focused strongly on case studies, which is why we can benefit from a diverse and empirically rich knowledge base on the phenomenon and its regional manifestations”. Socioeconomic forces of shrinkage can be (more or less) easily derived from this kind of investigation (Liu 2005; Lesthaeghe and Lopez-Gay 2013; Li and Mykhnenko 2018). In Portugal, Alves et al. (2016) identified five types of shrinking cities: “Persistent Early Shrinkage” due to exodus from the rural periphery, “Metropolitan Shrinkage” due to the challenges of urban sprawl, “Recent Shrinkage” in de-industrialization hotspots, “Cyclic Shrinkage” occurring in political transformation cores, and “Mild Shrinkage” due to lifestyle disamenities.

Deng et al. (2019) demonstrated that “in recent years, with the extensive expansion of the Chinese High-Speed Railway network, the reduction in travel time has greatly increased the mobility of people across cities, thus affecting the spatial redistribution of the urban population in China”. This article delineated a new form of shrinkage indirectly driven by infrastructural development in other locations (Döringer et al. 2020). At the same time, Wang et al. (2020b) hypothesized how land finance contraction has accelerated metropolitan decline in China. Du et al. (2020) evidenced how export-oriented economy and ‘exo-urbanization’ induced by the financial crisis of 2008 determined urban decline in Pearl River Delta (China), reflecting how “new spatial symptoms related to urban shrinkage, such as factory collapses, job losses, and vacant dwellings, were observed in this area”.

Despite a mass of studies going in other directions, industrial decline remains a relevant motivation behind metropolitan decline (Martinez-Fernandez et al. 2012; Morelli et al. 2014; Elzerman and Bontje 2015; Nelle et al. 2017). For instance, since the collapse of state socialism, “shrinkage has been evident in many Russian cities, especially in small and medium-sized ones” (Batunova and Gunko 2018), delineating the importance of the structural decline

in traditional industries as the main factor at the base of metropolitan shrinkage (Dijkstra et al. 2015; Duvernoy et al. 2018; Du et al. 2020). Wang et al. (2020a, 2020b) also suggested how “industrial diversity is essential in further exploring the reasons for city shrinkage” since “some single-industry cities have experienced a sharp conversion from booms to busts while multi-industry cities are more likely to sustain their prosperity”. Recent studies have increasingly focused on the contribution of population aging, sociodemographic change, migration patterns, and intentional shrinkage to the quality of life in central cities (e.g., Cuadrado-Ciuraneta et al. 2017; Di Feliciano et al. 2018; Panori et al. 2019), possibly delineating alternative—less studied—pathways to metropolitan decline (Arbaci 2007; Di Feliciano and Salvati 2015; De Rosa and Salvati 2016; Ciommi et al. 2019).

Based on this review, it is clear how no single model fulfills all of the criteria required to interpret urban shrinkage in a spatially explicit way because of the intrinsic multiplicity of development paths in contemporary cities (e.g., Couch et al. 2007; Del Bono et al. 2015; Carlucci et al. 2017). In these regards, the great recession has hypothesized to be a powerful factor of urban shrinkage (Kabisch and Haase 2011; Cecchini et al. 2019; Deng et al. 2019), despite few studies being devoted to describing the prolonged effect of a global economic crisis at the metropolitan level in Europe (Mallach et al. 2017; Krueger et al. 2018; Li and Mykhnenko 2018). Likely for the first time in the literature, Du et al. (2020) specifically delineated the role of sudden (globalization-driven) economic shocks in metropolitan decline, confirming empirically “the complexity and multiplicity of urban shrinkage that emerged in the rapidly urbanizing area of the Global South”. With this perspective in mind, our study investigates the relationship between short-term urban dynamics, immigration, and sociodemographic inequalities in Athens (Arapoglou and Sayas 2009; Carlucci et al. 2017; Perrin et al. 2018). Despite the limited generalization to broader contexts (e.g., Lamonica et al. 2020), analysis of case studies may contribute to conceptualize shrinkage processes into a wider theoretical debate in urban studies, delineating metropolitan decline as an individual (city-based) phenomenon that requires a broad integration of theoretical explanations with apparent trajectories of growth (Arbaci 2008; Pili et al. 2017; Rauhut 2017). Combining these approaches will contribute to portraying a ‘pluralist world of shrinkages’ instead of invariant processes of metropolitan decline (Sevilla-Buitrago 2013; Haase et al. 2014; Salvati et al. 2016).

2. Methodology

2.1. Study Area

We investigated population dynamics in an area coinciding with the geographical region of Attica, Central Greece, covering nearly 3800 km² and corresponding with the NUTS-2 level of the European Nomenclature of Territorial Statistical Units (NUTS). Occupying a strategic position in the middle of the Aegean Sea (Pili et al. 2017), the area extends undulated terrains that alternate coastal and inland plains (the largest is the ‘Lekanopedio Attikis’ hosting Athens, the capital city of Greece) and mountain ranges at 1000 m of elevation (Rontos et al. 2016). Attica is administered by regional units (‘Periferiaki Enotites’) defined with the ‘Kallikratis’ reform of local authorities. Most of the area is gravitated in the regional unit of Central Athens—the economic core of Greater Athens including 9 municipalities, one of which is downtown Athens (Rontos 2007).

Attica concentrates on traditional and advanced services with public administration, although manufacturing, tourism, and construction industries were (and still are) important sectors in the economic base of the region (Di Feliciano et al. 2018). Athens’ expansion was basically radio-centric, shifting to moderate settlement dispersion in recent decades (Di Feliciano and Salvati 2015). In the 1950s and the 1960s, metropolitan regions in Greece—and mostly Athens—attracted intense immigration flows from rural districts (Maloutas 2007). Spatial divides were particularly evident at that time (Salvati 2016) since the metropolitan regions of Athens and Thessaloniki concentrated together nearly half of the Greek population (Gavalas et al. 2014). While internal migration fueled urban expansion in the 1970s (Gkartzios 2013), migration flows in the 1980s were directed mostly

to peri-urban areas (Arapoglou and Sayas 2009), leading to stagnant population growth in core cities (Gkartzios 2013).

Following a relatively short wave of economic expansion encompassing the late 1990s and the early 2000s (Morelli et al. 2014), Greece underwent a political, economic, and social crisis beginning in 2007 (Remoundou et al. 2016), with rising unemployment and urban poverty, austerity urbanism, reduced public spending, and cuts in primary services (Salvati 2016). As a direct consequence of the recession (Kaika 2012; Dalakoglou 2013; Souliotis 2013), the time interval between 2011 and 2016 corresponded with the first period in the post-war history of Greece showing a negative migration balance at the national scale (emigration flows higher than immigration flows). A slightly positive migration balance was again observed beginning in 2017 (Figure 1).

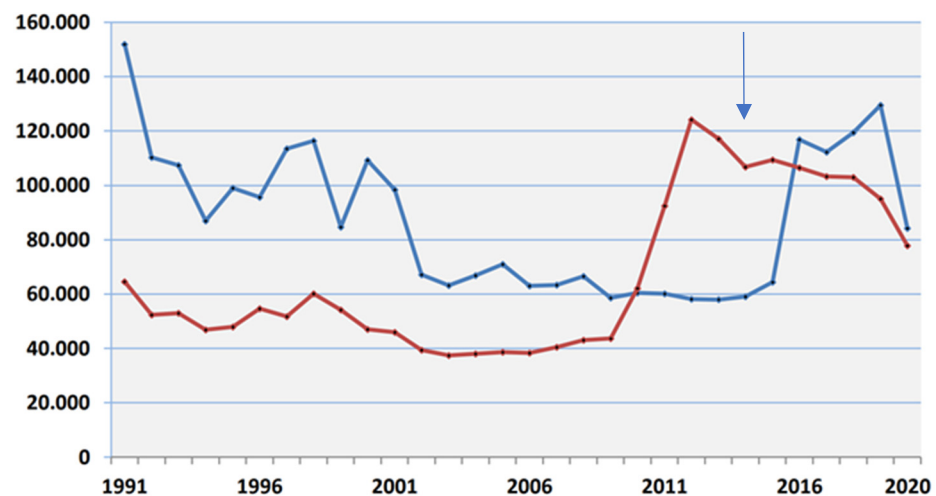


Figure 1. Components of migration balance in Greece, 1991–2020 (number of registered newcomers: blue; people expatriated and cancelled from population register: red); the arrow indicates the time period with a negative migration balance (source: ELSTAT demographic register).

2.2. Statistical Data

We elaborated official statistics from multiple data sources with the aim of providing a refined analysis of demographic trends in the study area (Table 1). While bringing some limitations and difficulties of standardization because of heterogeneous time series and divergent spatial definitions (Di Feliciantonio and Salvati 2015; Di Feliciantonio et al. 2018; Cuadrado-Ciuraneta et al. 2017), use of official statistics from multiple sources is considered an appropriate strategy approaching the intrinsic complexity of metropolitan dynamics in Southern Europe (Serra et al. 2014; Rontos et al. 2016; Salvati and Serra 2016). Indicators derived from official statistics allow a diachronic investigation of demographic patterns and economic processes in highly diversified social contexts (Carlucci et al. 2017; Pili et al. 2017; Zambon et al. 2017). The empirical results of our analysis focused on short-term population trends in the area, considering both structure and dynamics of native and migrant components (Gavalas et al. 2014). A specific investigation of the contribution of natural and migration balances in metropolitan growth and decline (*sensu* Gkartzios 2013) and a refined analysis of selected characteristics of non-native population in the region (*sensu* Panori et al. 2019) completed the study.

Table 1. A summary of official statistics considered in this paper.

Issue	Survey	Spatial Domain	Timetable
Population balance	Eurostat demo. statistics	Regional units (NUTS-3)	1991–2020
Demographic indicators	Eurostat demo. statistics	Regional units (NUTS-3)	2014–2021
Natural pop. growth	Hellenic Ministry of Interior	Regional units (NUTS-3)	2013–2022
Population by citizenship	ELSTAT Labour Survey	Regions (NUTS-2)	1988–2020
Estimation foreign popul.	ELSTAT demo. register	Country	2008–2020
Citizenship requests	Hellenic Ministry of Interior	Regions (NUTS-3)	2011–2021
Immigration flows	Hellenic Ministry of Interior	Regional units (NUTS-3)	2016, 2019
Births from immigrants	ELSTAT demo. register	Regions (NUTS-2)	2004–2020
Unemployment rate	OECD regional statistics	Macro-regions (NUTS-1)	2000–2020
Poverty indicators	Eurostat, EU-SYLK	Regions (NUTS-2)	2003–2020
Price residen. apartments	Bank of Greece	Macro-regions (NUTS-1)	2006–2022

Short-term population data were derived from demographic registers by a regional unit (NUTS-3 level) collected annually by the Greek Statistical Authority (ELSTAT) and released by the European Statistical Office (Eurostat). Selected indicators of age structure for 2014 and 2020 (the maximum length of the available time series on homogeneous spatial aggregates) were derived from the annual estimation of the resident population produced by Eurostat and based on the aggregate information collected in the national register (ELSTAT) at the same spatial scale (Salvati et al. 2018a). The exercise was refined with a descriptive analysis of natural and migration balance disseminated annually by Eurostat for each regional unit and covering a time interval between 2000 and 2019 (<https://ec.europa.eu/eurostat/data/database>, accessed on 9 November 2022). This analysis was aimed at delineating the specific contribution of migration balance to population growth (Salvati et al. 2019).

Additional migration statistics were derived from Eurostat and ELSTAT and elaborated at the highest available spatial scale (Rontos 2007). These data encompass Attica regional units and cover a time period between 2000 and 2020 (Panori et al. 2019). Total population stock by aggregated groups of citizenship (Greek, European non-Greek, and non-European) was estimated using data from the annual Labour Force Survey carried out in Greece by ELSTAT (Gavalas et al. 2014). An annual estimation of the resident population by broad groups of citizenship (Greek, other European countries, and non-European countries) disaggregated at the regional scale (NUTS-2 level) was provided for a relatively long time series (between 1988 and 2020). The number of incoming residents with non-Greek citizenship (European and non-European countries) registered in Greece between 2000 and 2020 was estimated from disaggregated data derived from the national population register (ELSTAT). The total number of births by mother's citizenship (Greek, European non-Greek, and non-European) in Attica was finally quantified between 2004 and 2020 from vital statistics (ELSTAT).

Descriptive statistics of residency permits, released in Athens over the years 2016 and 2019, were calculated on the basis of aggregated official data released by the Hellenic Ministry of Migration Affairs. The inherent diversification of immigrants obtaining a residency permit was derived considering their citizenship. Shannon diversity (H') and Pielou evenness (J) indexes were calculated on these data to delineate ethnic diversification over both time (2016 vs. 2019) and space (Attica prefectures vs. the rest of Greece). The year 2016 reflected economic conditions at the end of the Great Recession in Greece, with emigration rates significantly overpassing immigration rates (see Figure 1). The year 2019 reflected a moderate economic recovery, with immigration rates slightly overpassing emigration rates in Greece (Panori et al. 2019). Athens was representative of a relatively large territory including compact and dense settlements with a service-oriented economic base gravitating on the capital city municipality (Chorianopoulos et al. 2014) where the upper administrative and socioeconomic functions of Greece are concentrated (Kandylis et al. 2012). Piraeus was instead representative of dense and semi-dense settlements with a

predominant industrial base gravitating on the main Greek harbor (Kandyliis 2015). Pallini was finally representative of peri-urban contexts in both Western and Eastern Attica (Salvati and Serra 2016).

The time series of an official index of residential dwelling prices released quarterly by the National Bank of Greece since 2006 and distinguishing metropolitan Athens from the rest of the country was also considered in this study with the aim of delineating specific economic dynamics with a supposed impact on urban shrinkage (Carlucci et al. 2018). This standardized index estimated an average house price by surface (m²) considering new dwellings with comparable characteristics only, in order to delineate variability in the house price structure over time and space in a fully comparable way (e.g., Salvati et al. 2019). An index of severe material deprivation (measured as a per cent share of people living in such conditions in the total population) released by Eurostat exploiting the national EU-SILC sampling survey, carried out annually by ELSTAT, was also tabulated distinguishing metropolitan Athens from the whole of Greece (Rontos et al. 2016). Changes over time in unemployment rates (%) separately for Attica and Greece between 2006 and 2019 were calculated for three population segments (native Greek, European non-Greek, and citizens outside Europe) from aggregated data collected from ELSTAT (Labour Force Survey) and released by OECD regional statistics (e.g., Strozza et al. 2016). Taken together, these analysis dimensions are intended to provide a comprehensive overview of medium- and short-term metropolitan dynamics in the study area (Gavalas et al. 2014), resembling similarities and differences with other case histories in Europe (Arbaci 2008), and thus clarifying the net impact of economic crisis in urban decline processes (Martori and Apparicio 2011).

3. Results

After continuous growth lasting for more than one century, the results of a preliminary analysis of the most updated statistical data demonstrated how the total population in metropolitan Athens grew from 1991–2001 (from 3,562,233 to 3,858,454 inhabitants). Population growth turned to slightly negative rates between 2001 and 2011 (from 3,858,454 to 3,793,066 inhabitants), shifting toward a more evident decline between 2011 and 2021 (from 3,793,066 to 3,759,669 inhabitants). In both decades, and especially in the last one, population growth rates assumed negative values at all the geographical partitions for the first time in the history of contemporary Athens, as the population censuses since 1821 clearly demonstrate. Such dynamics may delineate an incipient urban shrinkage. Comparing a slightly wider administrative region (Attica) than metropolitan Athens with the whole of Greece, and focusing on the last phases of economic expansion and recession, the total population in Attica increased during economic expansion, reaching a peak of nearly 4 million inhabitants in 2010, and declining slowly to 3.7 million inhabitants in the following decade (Figure 2).

The per cent share of (non-native) population with non-Greek citizenship in the total population increased from 2% in 1988 to 11% in 2009, decreasing to 7% in 2019. Inhabitants with non-European citizenship were predominant especially during the 2000s, reaching the highest peak in 2008. The subsequent decline in this population segment was quite rapid. A slight recovery has been observed since 2017. Inhabitants with European (non-Greek) citizenship increased substantially in the 2000s, reaching a peak in 2008—almost unaltered up to 2012—and declining more evidently afterward. Post-crisis dynamics (2016–2019) were positioned in between an early immigration wave typical of the 1990s (and characterized by the rapid increase in migrants from Balkan countries or the Middle East) and a late, pre-crisis wave characterized by huge migrant in-flows from sub-Saharan, and Asian and Latin America countries. Based on the data presented above, ethnic diversification in Attica increased between 1988 and 2010 (Pielou's evenness index), decreasing rapidly in the next decade and stabilizing since 2017, while anticipating a similar trend for the rest of Greece.

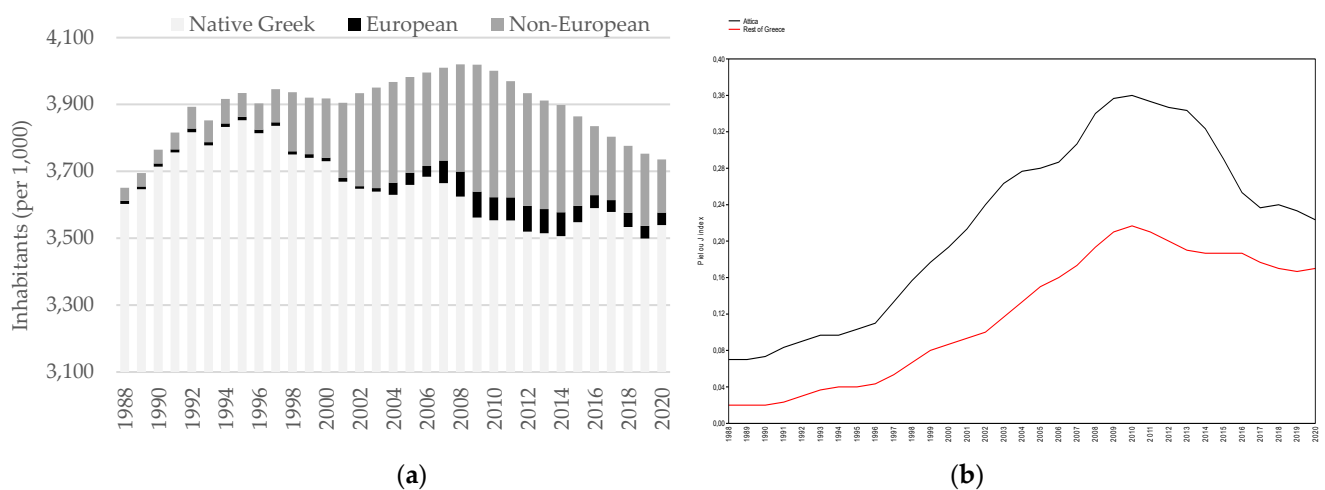
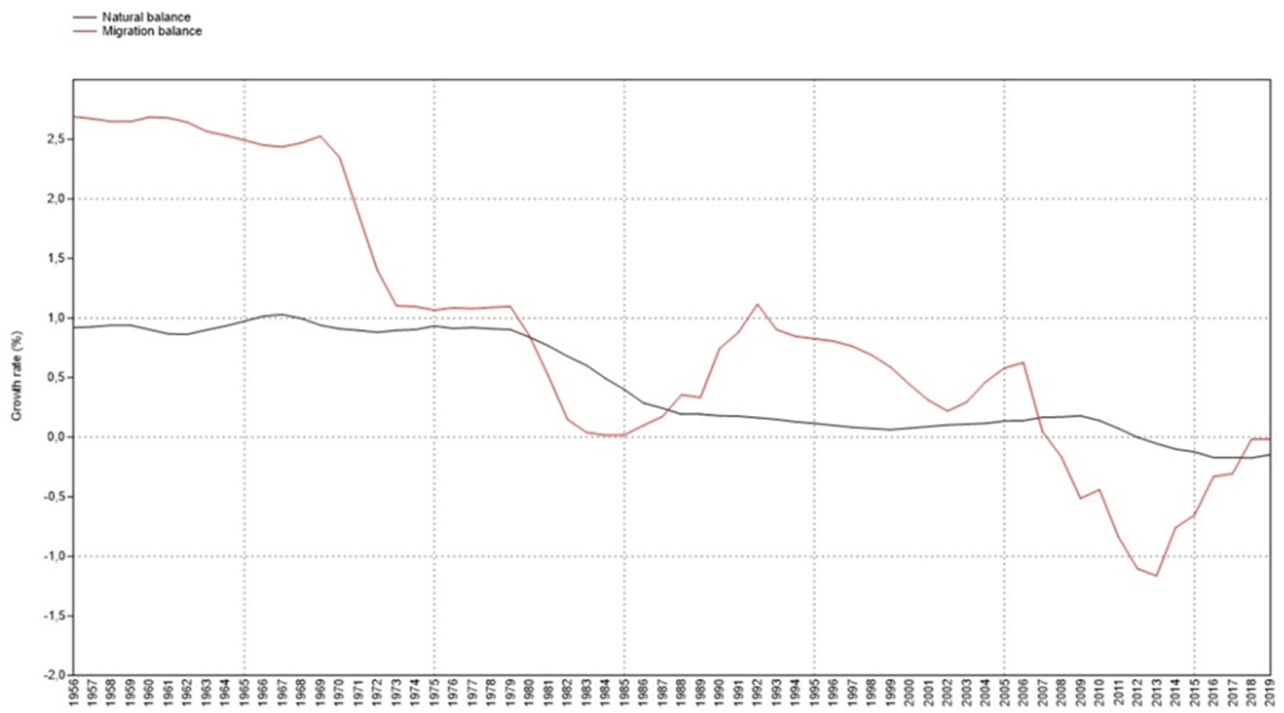


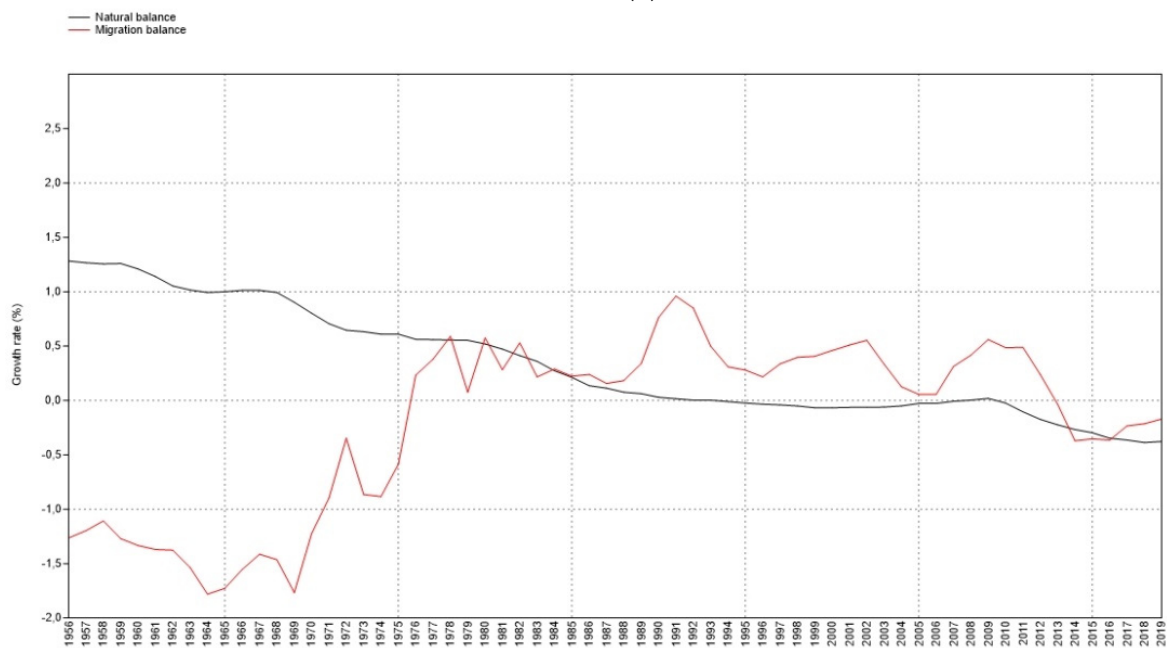
Figure 2. (a) The evolution of total population by citizenship over time in Attica, 1988–2020 (the ‘European’ class excludes all native ‘Greek’ citizens); Labour Force Survey estimation, ELSTAT; and (b) Pielou J evenness index of diversification in population composition by place of birth comparing Attica and the whole of Greece over time (source: ELSTAT Labour Force Survey).

3.1. The Evolution of Population Balance in Athens

Figure 3 compares natural and migratory balance (expressed as annual rates of population growth) in Attica and Greece as a whole, over both the 2000s and the 2010s. Although with different intensities, crude rates of net migration and natural population change showed similar dynamics over time, with a spatial polarization in demographically dynamic and shrinking districts. In general, crude rates of natural change in population were honest indicators of short-term trends in urban expansion. In a ‘close system’ (i.e., assuming a ‘neutral impact’ of migration flows), they contribute directly to delineating future scenarios of urbanization patterns and processes. Positive and negative values of natural population balance were observed in Attica, respectively, for the 2000s and 2010s. Following the intrinsic dynamics of natural balance, migration rates were positive in the 2000s turning to negative values in the 2010s (Figure 4).

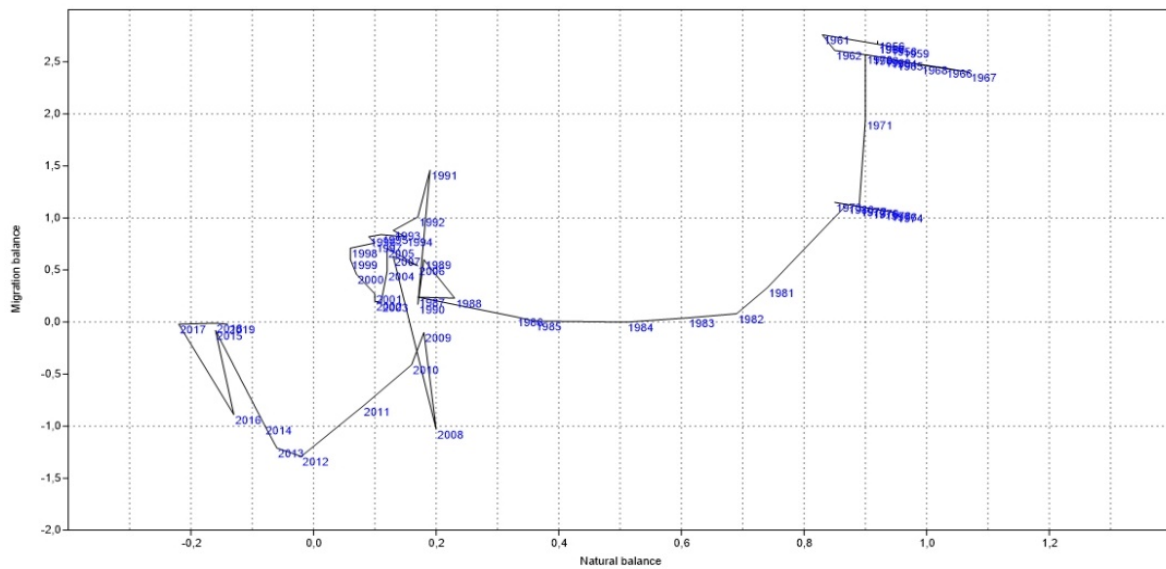


(a)

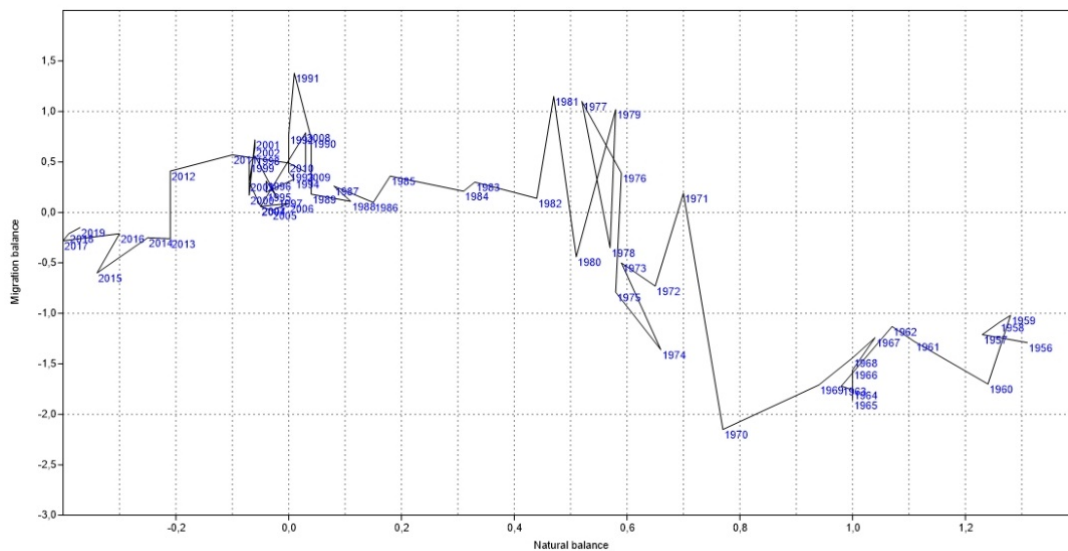


(b)

Figure 3. Trends over time in natural population balance and migration balance (a) in Attica and (b) in the rest of Greece (source: our elaboration on Eurostat regional statistics).



(a)



(b)

Figure 4. Scatterplots correlating natural and migration balances in Attica (a) and in the rest of Greece (b) over time (source: our elaboration on Eurostat regional statistics).

In Central Athens and Piraeus, the natural balance of population was negative in the two decades, outlining the shrinkage of inner cities. Western and Southern Athens revealed similar trends, although with a less intense demographic decline during the recession. A residual growth was observed in peripheral areas: natural balance was positive in the Northern Athens district as well as in Western and Eastern Attica (Figure 5). A negative migration balance was observed in both decades in Central Athens only. In the 2000s, positive rates were observed in all the remaining urban and non-urban districts, and reflect a residual growth of the metropolitan region at large. In the 2010s, migration balance was negative at all urban districts, being positive only in Western and Eastern Attica. As a consequence, total population growth was the highest in Eastern Attica and, subsequently, in Western Attica, owing to the contribution of immigration and fertility, respectively, in the former and latter cases.

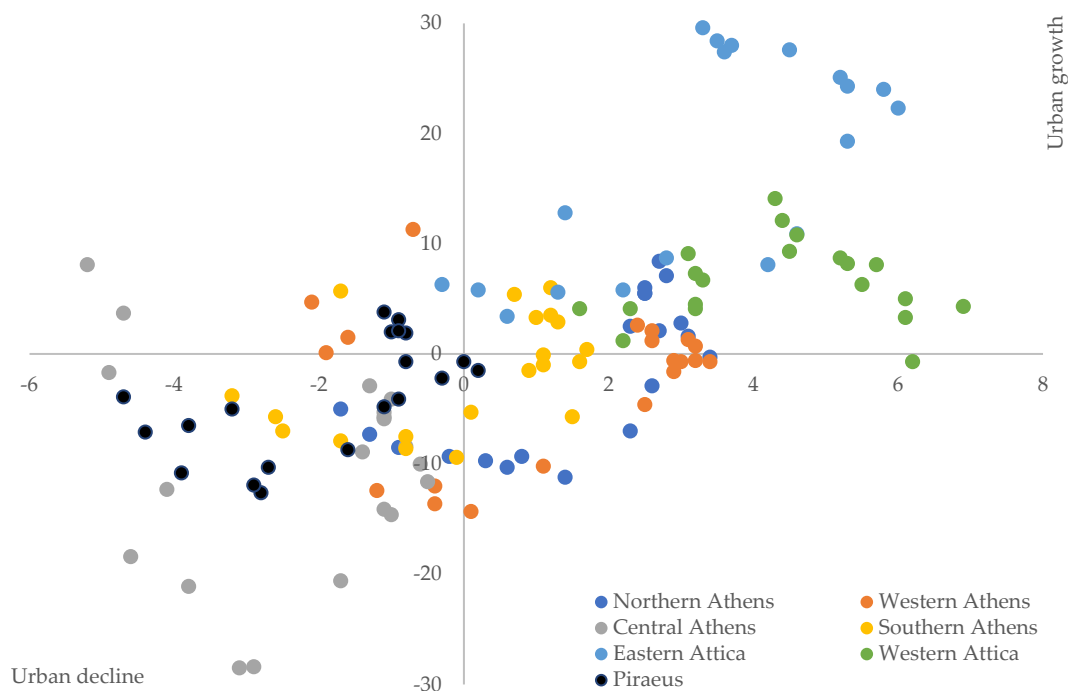


Figure 5. The relationship between natural balance (x-axis) and migration balance (y-axis) by year and regional unit in the study area (2000–2020) taken as a proxy of urban growth or decline (source: our elaboration on ELSTAT demographic register).

3.2. A Summary Profile of Foreign Citizens in Athens

Individual records of residence permits released to non-EU foreigners in Greece, dated, respectively, 2016 and 2019, document (i) a slight increase in the number of applications accepted and (ii) heterogeneous socioeconomic profiles of applicants. These results are in line with the aggregate statistics presented in Figure 1, which document a moderate recovery of migration flows in the last observation years. Residence permits for working increased substantially, and reflect modest improvements in social conditions (and a slight recovery in the economic attractiveness of Athens) between 2016 and 2019. Albanian was the dominant citizenship of origin, albeit declining over time.

Other nationalities widely represented in residence permits were Ukraine, Pakistan, and Georgia. The per cent share of immigrants in Athens, Piraeus, and Pallini in the total stock of immigrants (40%) was a bit higher than the per cent share of metropolitan Athens' population (native Greek and non-native) in the Greek population, suggesting that the capital city attracted, on average, more immigrants than the rest of the country (Table 2).

Ukraine and Pakistan immigrants settled more frequently in metropolitan Athens than elsewhere in the country. Conversely, Albanian immigrants settled preferentially outside metropolitan Athens, in both urban and rural prefectures of the remaining part of Greece. For both observation years, the inherent diversification of foreign population requesting a residence permit by citizenship was particularly evident moving from the rest of Greece to downtown Athens. Both absolute (Shannon) and relative (Pielou) diversification were observed in Athens, reflecting the metropolitan gradient since both indexes decreased linearly moving to Piraeus and the suburbs (Pallini).

Figure 6 illustrates changes over time in unemployment rate (%) comparing Attica with the whole of Greece and distinguishing native Greeks from the European (non-Greek) population and the foreign (outside Europe) population. Following moderate rates of unemployment measured at the end of economic expansion (approximately up to 2008) for all population segments in both Attica and Greece, unemployment increased suddenly within the population contingent of people with non-European citizenship, reaching 35% in 2013 in both geographical partitions compared with 24% of native Greeks. Europeans

(non-Greek) experienced an intermediate unemployment rate in both partitions, being slightly higher than the rate of non-European foreign population only in Attica in the last two–three years. Interestingly, unemployment rates of native Greeks declined substantially with economic recovery since 2015. On the contrary, the unemployment rate of foreign population segments declined slightly and less rapidly over time.

Table 2. Statistics of the requests of residence permits by year, citizenship, and district in Greece.

Citizenship	2016				2019			
	Athens	Piraeus	Suburbs	Rest of Greece	Athens	Piraeus	Suburbs	Rest of Greece
<i>The most frequent nationality</i>								
Albania	55.4	62.1	63.8	77.8	48.9	53.2	57.2	74.0
Ukraine	9.0	7.3	5.4	3.3	4.5	4.6	3.7	2.5
Pakistan	5.5	5.7	5.9	0.9	6.0	5.2	6.4	1.7
Georgia	3.4	2.3	2.2	3.6	4.9	3.7	2.1	4.2
<i>General data</i>								
Share (%) in total immigrants	26.3	8.6	8.2	56.9	28.1	8.3	5.7	57.9
Shannon H diversity index	2.04	1.79	1.67	1.20	2.22	2.10	1.93	1.37
Pielou J evenness index	0.42	0.38	0.36	0.24	0.45	0.44	0.41	0.28

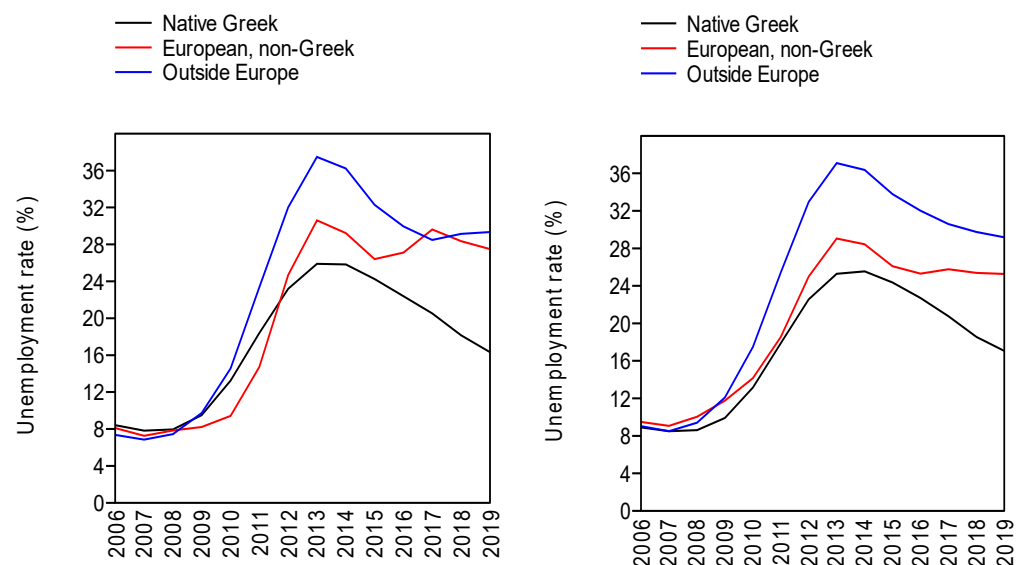


Figure 6. Unemployment rate (%) over time (2006–2019) in Attica (**left**) and Greece (**right**) as a whole by citizenship (source: our elaboration on OECD regional statistics).

3.3. Fertility, Population Aging, and Material Deprivation in Athens

As an early signal of demographic decline, the number of births in Attica decreased substantially between 2004 and 2020. The contribution of immigrants' fertility was relatively high at the beginning of the study period (18% of births from mothers with non-European citizenship in 2004, increasing to 20% in 2007). On average, this percentage dropped down to 13% in 2020 with 10,000 births less than in 2004 (Table 3).

These findings corroborate official statistics highlighting a general trend towards aging in the Greek population. The median population age increased systematically in Attica (2014–2020), in line with what has been observed for the rest of Greece (Table 4). A similar trend was observed for the old dependency ratio. The elder population concentrated in the Greater Athens area; Central Athens and Piraeus had slightly younger population structure, which was a counter-intuitive result if compared with the negative natural population balance observed in the same period. At the same time, significantly younger age structures have been observed in suburban districts.

Table 3. Live births in Attica by mother’s citizenship, 2004–2020.

Year	Total Births	Mother’s Citizenship			Per cent Share in Total Births		
		Native Greek	European Non-Greek	Outside Europe	Native Greek	European Non-Greek	Outside Europe
2004	38.901	31,392	543	6966	80.7	1.4	17.9
2008	42.899	33,965	610	8324	79.2	1.4	19.4
2012	37.266	30,856	1036	5373	82.8	2.8	14.4
2016	34.571	29,464	894	4205	85.2	2.6	12.2
2020	31.256	26,639	592	4025	85.2	1.9	12.9

Table 4. Demographic indicators in the study area by regional district and year.

Regional Unit	Median Population Age		Young Age Dependency Ratio		Old Dependency Ratio	
	2014	2020	2014	2020	2014	2020
Central Athens	43.4	45.0	18.0	21.2	30.5	34.8
Northern Athens	43.7	47.0	22.3	22.8	30.6	37.6
Western Athens	41.6	43.4	21.8	22.9	25.1	27.8
Southern Athens	43.6	46.2	20.8	21.8	29.5	35.0
Piraeus	42.9	45.6	20.7	21.7	29.4	33.6
Eastern Attica	40.2	42.5	24.7	22.7	24.4	28.2
Western Attica	36.6	38.1	26.0	24.8	20.2	21.6
Attica	42.4	44.6	21.2	22.2	28.2	32.4
Greece	42.9	45.2	22.6	22.4	31.6	35.1

In line with both unemployment statistics and demographic dynamics, the index of severe material deprivation indicates a complete shift from low deprivation to high deprivation rates moving from economic expansion (2000s) to recession (2010s). House prices followed the opposite pattern, with a moderate recovery at the end of the 2010s. Attica and the whole of Greece showed rather similar trends for both indicators, delineating a persistent condition of unemployment, poverty, and material deprivation at the base of the urban shrinkage observed in Athens in the 2010s (Figure 7). This was possibly aggravated by the long-term impacts of demographic dynamics, including total fertility decline and aging.

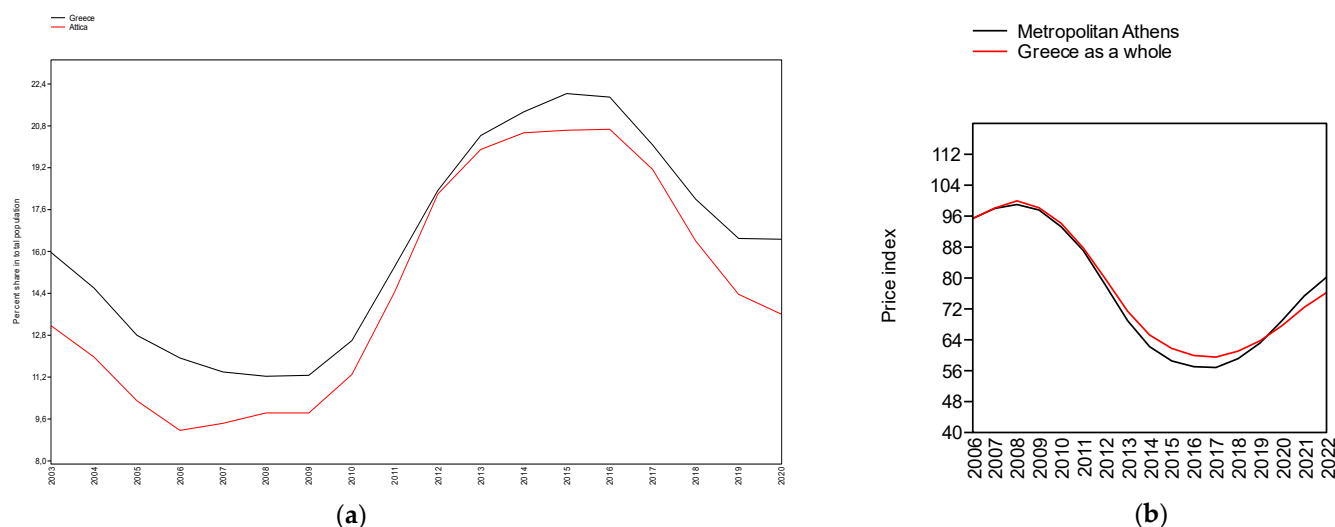


Figure 7. (a) Index of severe material deprivation (per cent share of people living in such conditions in total population) in metropolitan Athens and Greece as a whole (source: Eurostat regional statistics); (b) average price index (2008 = 100) of residential apartments over time (2006–2022) in the same spatial partitions (source: Bank of Greece).

4. Discussion

An integrated perspective on the context-specific dynamics of metropolitan decline was provided in the present study focusing on crisis-driven shrinkage and the relation with international migration (Haase et al. 2017). After uninterrupted demographic growth, the 2007 recession—for the first time in more than one century—led to metropolitan decline in Mediterranean Europe (Ciommi et al. 2018; Perrin et al. 2018; Salvati et al. 2019). Following one decade after the breakdown of the Great Crisis, its outcomes in terms of urban shrinkage can be adequately evaluated considering changes over time in sociodemographic indicators (Wang et al. 2020a, 2020b). Our study, based on a diachronic analysis of pertinent indicators derived from official statistics, aims at defining more precisely the (crisis-driven) sociodemographic mechanisms at the base of recent urban decline in Southern Europe (Zambon et al. 2018). The extensive use of multisource statistical indicators, supported by a systematic review of pertinent literature and an informed knowledge of relevant case studies, allows a dynamic representation of recent processes of metropolitan decline based on the interplay of long-term factors (e.g., population aging and low fertility) and short-term disturbances (e.g., counter-urbanization and crisis-driven emigration). In this perspective, the present study documents—likely for the first time in Mediterranean Europe—the demographic decline in a large metropolitan agglomeration in response to the 2007 recession, after a long-lasting population growth sustained by immigration flows—both internal and international (Kandyliis 2015; Cecchini et al. 2019; Panori et al. 2019).

Managing increasingly complex metropolitan dynamics requires holistic governance of the intrinsic relationship between location factors, land-use, spatial planning, and sociodemographic trends (Seto et al. 2010; Bocquier and Costa 2015; Salvati et al. 2018b). Delineating opportunities for spatial planning opened up by new demographic scenarios is a key issue in urban science (Scott and Storper 2015). In line with the working assumption presented in the introductory chapter, our study links urban growth and the inherent changes in local demographic profile characteristics of metropolitan Greece with short-term economic dynamics from the end of the 1990s to nowadays (Carlucci et al. 2017). The empirical results of our analysis contribute to a broader interpretation of metropolitan decline in Mediterranean Europe as a result of migration patterns, distinctive population changes, and settlement preferences during economic expansions and recessions (Hondroyiannis and Papapetrou 2002; Kasimis 2008; Kashnitsky et al. 2017; Ciommi et al. 2018).

Athens' development highlights how the concept of 'urban shrinkage' in contemporary societies was associated with multiple economic and non-economic transformations (Rontos 2007; Souliotis 2013; Kandyliis 2015), being intimately recognized as a multidimensional phenomenon associated with migration patterns, social inequalities, and possibly, ethnic segregation (Buzar et al. 2007; Kandyliis et al. 2012; Maloutas and Spyrellis 2019). The progressive abandonment of dense settlements has led to an incomplete gentrification of city cores, which has been offset by falling house prices only partially (Pili et al. 2017; Di Felicianantonio et al. 2018; Panori et al. 2019). A progressive economic marginalization in the European arena (Chorianopoulos et al. 2014), the persistent lack of mega-events after the 'gold' age of the 2004 Olympics (Chorianopoulos et al. 2010), and austerity urbanism (Kaika 2012), may justify the economic and demographic decline in a region well beyond the boundaries of Greater Athens (e.g., Bayona-i-Carrasco and Gil-Alonso 2013; Salvati et al. 2016; Benassi and Naccarato 2018).

The inherent complexity of local-scale demographic dynamics makes the analysis of the current demographic framework even more complicated (e.g., Ciommi et al. 2019). In Eastern Attica, population growth was basically a consequence of short-range residential mobility, representing the late stage of a long-lasting suburbanization (Salvati and Serra 2016). In Western Attica, the contribution of natural balance was still important because of a young population age structure and locally high fertility rates (Gavalas et al. 2014). These contrasting trends consolidated a traditional polarization in urban, suburban, and rural settlements (Rontos et al. 2016). In this framework, the most relevant contribution to urban

decline came from international migrations (Arapoglou and Sayas 2009), slowing down during crisis (Vinci et al. 2022). After twenty years with huge and continuous migration inflows—both medium-range (Balkans and the Middle East) and long-range (Africa, South Asia and China, and Latin America)—the foreign population declined for the first time since 2010 in Attica (Salvati 2016).

The (non-Greek) European-native population had the most evident reduction in the first years of the 2010s, likely testifying to the negative impact of the economic crisis on the higher segments of the labor market and the reduced attractiveness of the Greek capital city in a supranational context (Casado-Díaz et al. 2004; Del Bono et al. 2015; Stergiou et al. 2017). Experiencing degraded housing provision, unemployment, and poverty, as well as bureaucratic constraints to relocation outside Greece, the extra-communitarian population segment was forced to live in a sort of ‘migrant trap’ for years (Kaika 2012; Souliotis 2013; Panori et al. 2019). Moreover, assuming the inherent contribution of foreign population to overall fertility (Rontos 2007; Bagavos et al. 2018; Tragaki and Bagavos 2019), the decline in immigration flows—combined with the reduction in birth rates (both from native and non-native mothers) between 2004 and 2020—delineated a possibly unsustainable demographic context (Maloutas and Spyrellis 2019) supposed to accelerate metropolitan shrinkage if not regulated with specific policies supporting childhood (Gavalas et al. 2014).

Based on these premises, the last decade in Athens provided a dynamic representation of metropolitan decline grounded in the interplay of long-term factors and concomitant short-term disturbances (Alexandri 2015; Mallach et al. 2017; Gounaridis et al. 2018). More specifically, the 2007 recession leveraged urban poverty and unemployment, negatively impacting immigration rates and fueling the sudden increase in working poor (Salvati et al. 2019). As a relevant short-term disturbance, economic stagnation triggered population shrinkage and a spatial polarization of economic activities and social functions (Di Felicianantonio et al. 2018), depressing both internal and international migration inflows (Maloutas and Spyrellis 2019). Long-term factors, such as aging and low fertility, had a further negative impact on natural population growth (e.g., Lesthaeghe and Lopez-Gay 2013).

Post-crisis development may lead to latent changes in housing preferences, with younger people moving to smaller households (Kandyliis 2015). Since inner cities offer more work opportunities, better public transport, cheaper housing, and easier networking, the young population (re)concentrates downtown, suggesting a (renewed) preference for urban lifestyles, with an indirect effect on local demography (Kaika 2012; Strozza et al. 2016; Pili et al. 2017). More flexible work arrangements with temporary jobs and lower income have exalted these processes in European cities (Rees et al. 2017; Sabater and Graham 2019; Tragaki and Bagavos 2019). However, such dynamics seem to have counterbalanced only partially the decline in labor-related foreign immigrant flows settling in central neighborhoods (Chorianopoulos et al. 2010; Morelli et al. 2014; Panori et al. 2019). As a matter of fact, the decline in downtown Athens was evident also in the last decade (2011–2021: -0.4% by year) after two decades of continuous population shrinkage (1991–2001: -0.34% ; 2001–2011: -1.58%).

By providing an informative base for regional science, the empirical results of our study provides a refined knowledge for implementation of more effective policies that strengthen local competitiveness, sustainability, and resilience of shrinking cities (Chorianopoulos et al. 2014). If regulating long-term demographic dynamics (e.g., population aging and fertility decline) is quite difficult in a local perspective (Salvati et al. 2018a), unemployment reduction and containment of poverty gaps appear particularly appropriate, together with coordinated development policies for inner cities (Dura-Guimera 2003). In line with other Mediterranean cities, signs of a demographic recovery, still far from being extensively recorded in Athens, may testify to how a ‘crisis-driven’ shrinkage can be managed with multi-target and multi-scalar strategies associated with migration policies (Carlucci et al. 2018; Duvernoy et al. 2018; Perrin et al. 2018). These measures should value the implicit advantages of the new (post-crisis) socioeconomic context, e.g., exploiting opportunities

derived from the collapse in land and house prices, and trying to regulate (and, possibly, stabilize) migration flows (Salvati et al. 2019).

Our study finally suggests how metropolitan systems' resilience can be effectively managed (and, possibly, reinforced) with an appropriate governance of the 'demographic engine' of cities. On the one hand, it is documented how demographically declining cities are typically associated with stagnant economies (Haase et al. 2010), being unable to engage global competition dynamics (Salvati 2016). On the other hand, spatial planning in Mediterranean Europe should explicitly recognize the legacy of traditional settlement forms in modern (peri-urban) landscapes, taking the promotion of life quality as the main target of a truly sustainable (local) development path (Repetti et al. 2008; Salvati et al. 2016; Rees et al. 2017). This framework gives room to a more effective interpretation of complex processes of urban shrinkage (Nelle et al. 2017), delineating resilient solutions to a finely tuned city growth with present (and future) population dynamics (e.g., De Rosa and Salvati 2016).

Measures counteracting urban decline should promote local development and sustainable city planning, benefiting from a tighter integration with policies containing urban poverty, supporting ethnic diversification and social cohesion (Maloutas 2007; Salvati and Serra 2016; Di Feliciano et al. 2018; Panori et al. 2019). Being required to provide differentiated services for a declining population, social policies should finally reconcile demographic dynamics with the specificity of local contexts, promoting appropriate spatial infrastructures in metropolitan areas (Rontos 2007; Giner-Monfort et al. 2016; Liu et al. 2020). Comparative research in this direction may benefit from the results of methodological approaches integrating quantitative analysis, statistical indicators, economic modeling, literature review, and field surveys (Arbaci 2007, 2008) aimed at capturing the specificity of urban decline paths and processes.

5. Conclusions

Declining immigration flows, reduced fertility rates, and population aging lead to spatially heterogeneous living conditions and suggest a thorough rethinking of sustainable urbanization. Resulting to be progressively more influenced by external shocks, recent demographic dynamics seem to leave cities as more fragile and unequal than before, and stimulate a complete rethinking of spatial planning and developmental measures for local communities exposed to decreasing immigrant flows, low fertility, and aging. A comparative analysis of (local-scale) population dynamics allows a comprehensive understanding of the latent re-organization of metropolitan spaces during recessions. With this perspective in mind, the empirical results of our study add to the traditional literature on 'industrial cities shrinkage' in Europe and contributes to (re)formulate short- and medium-term development scenarios in large agglomerations, shedding further light on the role of migration in crisis-driven processes of urban decline in Mediterranean Europe.

Place-specific and multi-scale measures promoting sustainability and resilience targets are demonstrated to be key tools influencing the (post-crisis) developmental path of competitive and equal cities. In this vein, measures promoting local development and city planning could benefit from a tighter integration with policies containing urban poverty, supporting ethnic diversification, and orienting spatial transformations toward social cohesion, e.g., mitigating economic polarization over space. Based on these findings, planning strategies coping with the sustainable development of large Mediterranean cities should create the appropriate conditions for equity, cohesion, competitiveness, and environmental security.

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References

- Alexandri, Georgia. 2015. Reading between the lines: Gentrification tendencies and issues of urban fear in the midst of Athens' crisis. *Urban Studies* 52: 1631–646. [\[CrossRef\]](#)
- Alves, Daniel, Ana Paula Barreira, Maria Helena Guimarães, and Thomas Panagopoulos. 2016. Historical trajectories of currently shrinking Portuguese cities: A typology of urban shrinkage. *Cities* 52: 20–29. [\[CrossRef\]](#)
- Angel, Shlomo, Jason Parent, Daniel L. Civco, Alexander Blei, and David Potere. 2011. The dimensions of global urban expansion: Estimates and projections for all countries, 2000–2050. *Progress in Planning* 75: 53–107. [\[CrossRef\]](#)
- Arapoglou, Vassilis P., and John Sayas. 2009. New facets of urban segregation in southern Europe—Gender, migration and social class change in Athens. *European Urban and Regional Studies* 16: 345–62. [\[CrossRef\]](#)
- Arbaci, Sonia, and Teresa Tapada-Berteli. 2012. Social inequality and urban regeneration in Barcelona city centre: Reconsidering success. *European Urban and Regional Studies* 19: 287–311. [\[CrossRef\]](#)
- Arbaci, Sonia. 2007. Ethnic segregation, housing systems and welfare regimes in Europe. *European Journal of Housing Policy* 7: 401–33. [\[CrossRef\]](#)
- Arbaci, Sonia. 2008. (Re) viewing ethnic residential segregation in Southern European cities: Housing and urban regimes as mechanisms of marginalisation. *Housing Studies* 23: 589–613. [\[CrossRef\]](#)
- Arribas-Bel, Daniel, Peter Nijkamp, and Henk Scholten. 2011. Multidimensional urban sprawl in Europe: A self-organizing map approach. *Computers, Environment and Urban Systems* 35: 263–75. [\[CrossRef\]](#)
- Aurambout, Jean-Philippe, Ricardo Barranco, and Carlo Lavalle. 2018. Towards a simpler characterization of urban sprawl across urban areas in Europe. *Land* 7: 33. [\[CrossRef\]](#)
- Bagavos, Christos, Georgia Verropoulou, and Cleon Tsimbos. 2018. Assessing the contribution of foreign women to period fertility in Greece, 2004–2012. *Population* 73: 115–30.
- Barbieri, Giovanni A., Federico Benassi, Marianna Mantuano, and M. Rosaria Prisco. 2019. In search of spatial justice. Towards a conceptual and operative framework for the analysis of inter-and intra-urban inequalities using a geo-demographic approach. The case of Italy. *Regional Science Policy & Practice* 11: 109–21.
- Batunova, Elena, and Maria Gunko. 2018. Urban shrinkage: An unspoken challenge of spatial planning in Russian small and medium-sized cities. *European Planning Studies* 26: 1580–597. [\[CrossRef\]](#)
- Bayona-Carrasco, Jordi, and Fernando Gil-Alonso. 2012. Suburbanisation and international immigration: The case of the Barcelona Metropolitan Region (1998–2009). *Tijdschrift voor Economische en Sociale Geografie* 103: 312–29. [\[CrossRef\]](#)
- Bayona-i-Carrasco, Jordi, and Fernando Gil-Alonso. 2013. Is Foreign Immigration the Solution to Rural Depopulation? The Case of Catalonia (1996–2009). *Sociologia Ruralis* 53: 26–51. [\[CrossRef\]](#)
- Benassi, Federico, and Alessia Naccarato. 2017. Households in potential economic distress. A geographically weighted regression model for Italy, 2001–2011. *Spatial Statistics* 21: 362–76. [\[CrossRef\]](#)
- Benassi, Federico, and Alessia Naccarato. 2018. Foreign citizens working in Italy: Does space matter? *Spatial Demography* 6: 1–16. [\[CrossRef\]](#)
- Bocquier, Philippe, and Rafael Costa. 2015. Which transition comes first? Urban and demographic transitions in Belgium and Sweden. *Demographic Research* 33: 1297–332. [\[CrossRef\]](#)
- Bontje, Marco. 2005. Facing the challenge of shrinking cities in East Germany: The case of Leipzig. *GeoJournal* 61: 13–21. [\[CrossRef\]](#)
- Boyle, Paul. 2003. Population geography: Does geography matter in fertility research? *Progress in Human Geography* 27: 615–26. [\[CrossRef\]](#)
- Buzar, Stefan, Philip E. Ogden, and Ray Hall. 2005. Households matter: The quiet demography of urban transformation. *Progress in Human Geography* 29: 413–36. [\[CrossRef\]](#)
- Buzar, Stefan, Philip Ogden, Ray Hall, Annegret Haase, Sigrun Kabisch, and Annett Steinführer. 2007. Splintering urban populations: Emergent landscapes of reurbanisation in four European cities. *Urban Studies* 44: 651–77. [\[CrossRef\]](#)
- Camarda, Domenico, Francesco Rotondo, and Francesco Selicato. 2015. Strategies for dealing with urban shrinkage: Issues and scenarios in Taranto. *European Planning Studies* 23: 126–46. [\[CrossRef\]](#)
- Carbonaro, Gianni, Eugenio Leanza, Philip McCann, and Francesca Medda. 2018. Demographic decline, population aging, and modern financial approaches to urban policy. *International Regional Science Review* 41: 210–32. [\[CrossRef\]](#)
- Carlucci, Margherita, Efstathios Grigoriadis, Kostas Rontos, and Luca Salvati. 2017. Revisiting a hegemonic concept: Long-term 'Mediterranean urbanization' in between city re-polarization and metropolitan decline. *Applied Spatial Analysis and Policy* 10: 347–62. [\[CrossRef\]](#)
- Carlucci, Margherita, Francesco Maria Chelli, and Luca Salvati. 2018. Toward a new cycle: Short-term population dynamics, gentrification, and re-urbanization of Milan (Italy). *Sustainability* 10: 3014. [\[CrossRef\]](#)

- Casado-Díaz, María Angeles, Claudia Kaiser, and Anthony M. Warnes. 2004. Northern European retired residents in nine southern European areas: Characteristics motivations and adjustment. *Ageing and Society* 24: 353–81. [\[CrossRef\]](#)
- Cecchini, Massimo, Ilaria Zambon, Antonella Pontrandolfi, Rosario Turco, Andrea Colantoni, Anastasios Mavrikakis, and Luca Salvati. 2019. Urban sprawl and the 'olive' landscape: Sustainable land management for 'crisis' cities. *GeoJournal* 84: 237–55. [\[CrossRef\]](#)
- Chelleri, Lorenzo, Thorsten Schuetze, and Luca Salvati. 2015. Integrating resilience with urban sustainability in neglected neighborhoods: Challenges and opportunities of transitioning to decentralized water management in Mexico City. *Habitat International* 48: 122–30. [\[CrossRef\]](#)
- Chorianopoulos, Ioannis, Georgios Tsilimigkas, Sotirios Koukoulas, and Thomas Balatsos. 2014. The shift to competitiveness and a new phase of sprawl in the Mediterranean city: Enterprises guiding growth in Messoghia–Athens. *Cities* 39: 133–43. [\[CrossRef\]](#)
- Chorianopoulos, Ioannis, Thomas Pagonis, Sotiris Koukoulas, and Sotiria Drymoniti. 2010. Planning, competitiveness and sprawl in the Mediterranean city: The case of Athens. *Cities* 27: 249–59. [\[CrossRef\]](#)
- Ciommi, Mariateresa, Francesco M. Chelli, and Luca Salvati. 2019. Integrating parametric and non-parametric multivariate analysis of urban growth and commuting patterns in a European metropolitan area. *Quality and Quantity* 53: 957–79. [\[CrossRef\]](#)
- Ciommi, Mariateresa, Francesco M. Chelli, Margherita Carlucci, and Luca Salvati. 2018. Urban growth and demographic dynamics in southern Europe: Toward a new statistical approach to regional science. *Sustainability* 10: 2765. [\[CrossRef\]](#)
- Couch, Chris, Jay Karecha, Henning Nuissl, and Dieter Rink. 2007. Decline and sprawl: An evolving type of urban development—observed in Liverpool and Leipzig. *European Planning Studies* 13: 117–36. [\[CrossRef\]](#)
- Cuadrado-Ciuraneta, Sergi, Antoni Durà-Guimera, and Luca Salvati. 2017. Not only tourism: Unravelling suburbanization, second-home expansion and “rural” sprawl in Catalonia, Spain. *Urban Geography* 38: 66–89. [\[CrossRef\]](#)
- Dalakoglou, Dimitris. 2013. The crisis before “The Crisis”: Violence and urban neoliberalization in Athens. *Social Justice* 39: 24–42.
- De Rosa, Simona, and Luca Salvati. 2016. Beyond a ‘side street story’? Naples from spontaneous centrality to entropic polycentricism, towards a ‘crisis city’. *Cities* 51: 74–83. [\[CrossRef\]](#)
- Del Bono, Emilia, Andrea Weber, and Rudolf Winter-Ebmer. 2015. Fertility and economic instability: The role of unemployment and job displacement. *Journal of Population Economics* 28: 46–479.
- Deng, Taotao, Dandan Wang, Yang Yang, and Huan Yang. 2019. Shrinking cities in growing China: Did high speed rail further aggravate urban shrinkage? *Cities* 86: 210–19. [\[CrossRef\]](#)
- Di Feliciano, Cesare, and Luca Salvati. 2015. ‘Southern’ alternatives of urban diffusion: Investigating settlement characteristics and socioeconomic patterns in three Mediterranean regions. *Tijdschrift voor Economische en Sociale Geografie* 106: 453–70. [\[CrossRef\]](#)
- Di Feliciano, Cesare, Luca Salvati, Efthymia Sarantakou, and Kostas Rontos. 2018. Class diversification, economic growth and urban sprawl: Evidences from a pre-crisis European city. *Quality & Quantity* 52: 1501–522.
- Dijkstra, Lewis, Enrique Garcilazo, and Philip McCann. 2015. The effects of the global financial crisis on European regions and cities. *Journal of Economic Geography* 15: 935–49. [\[CrossRef\]](#)
- Döringer, Stefanie, Yuta Uchiyama, Marianne Penker, and Ryo Kohsaka. 2020. A meta-analysis of shrinking cities in Europe and Japan. Towards an integrative research agenda. *European Planning Studies* 28: 1693–712. [\[CrossRef\]](#)
- Du, Zhiwei, Lixia Jin, Yuyao Ye, and Hongou Zhang. 2020. Characteristics and influences of urban shrinkage in the exo-urbanization area of the Pearl River Delta, China. *Cities* 103: 102767. [\[CrossRef\]](#)
- Dura-Guimera, Antoni. 2003. Population deconcentration and social restructuring in Barcelona, a European Mediterranean city. *Cities* 20: 387–94. [\[CrossRef\]](#)
- Duverney, Isabelle, Ilaria Zambon, Adele Sateriano, and Luca Salvati. 2018. Pictures from the other side of the fringe: Urban growth and peri-urban agriculture in a post-industrial city (Toulouse, France). *Journal of Rural Studies* 57: 25–35. [\[CrossRef\]](#)
- Elzerman, Koen, and Marco Bontje. 2015. Urban shrinkage in parkstad limburg. *European Planning Studies* 23: 87–103. [\[CrossRef\]](#)
- Fol, Sylvie. 2012. Urban shrinkage and socio-spatial disparities: Are the remedies worse than the disease? *Built Environment* 38: 259–75. [\[CrossRef\]](#)
- García, Marisol. 2010. The breakdown of the Spanish urban growth model: Social and territorial effects of the global crisis. *International Journal of Urban and Regional Research* 34: 967–80. [\[CrossRef\]](#)
- Gavalas, Vasilis S., Kostas Rontos, and Luca Salvati. 2014. Who becomes an unwed mother in Greece? Socio-demographic and geographical aspects of an emerging phenomenon. *Population, Space, and Place* 20: 250–63. [\[CrossRef\]](#)
- Gil-Alonso, Fernando, Jordi Bayona-i-Carrasco, and Isabel Pujadas-i-Rúbies. 2016. From boom to crash: Spanish urban areas in a decade of change (2001–2011). *European Urban and Regional Studies* 23: 198–216. [\[CrossRef\]](#)
- Giner-Monfort, Jordi, Kelly Hall, and Charles Betty. 2016. Back to Brit: Retired British migrants returning from Spain. *Journal of Ethnic and Migration Studies* 42: 797–815. [\[CrossRef\]](#)
- Gkartzios, Menelaos, and Karen Scott. 2015. A cultural panic in the province? Counterurban mobilities, creativity, and crisis in Greece. *Population, Space and Place* 21: 843–55. [\[CrossRef\]](#)
- Gkartzios, Menelaos. 2013. ‘Leaving Athens’: Narratives of counterurbanisation in times of crisis. *Journal of Rural Studies* 32: 158–67. [\[CrossRef\]](#)
- Gounaridis, Dimitrios, Ioannis Chorianopoulos, and Sotirios Koukoulas. 2018. Exploring prospective urban growth trends under different economic outlooks and land-use planning scenarios: The case of Athens. *Applied Geography* 90: 134–44. [\[CrossRef\]](#)
- Haase, Annegret, Anja Nelle, and Alan Mallach. 2017. Representing urban shrinkage—The importance of discourse as a frame for understanding conditions and policy. *Cities* 69: 95–101. [\[CrossRef\]](#)

- Haase, Annegret, Dieter Rink, Katrin Grossmann, Matthias Bernt, and Vlad Mykhnenko. 2014. Conceptualizing urban shrinkage. *Environment and Planning A* 46: 1519–534. [\[CrossRef\]](#)
- Haase, Annegret, Sigrun Kabisch, Annett Steinführer, Stefan Bouzarovski, Ray Hall, and Philip Ogden. 2010. Spaces of reurbanisation: Exploring the demographic dimension of inner-city residential change in a European setting. *Population, Space and Place* 16: 443–63. [\[CrossRef\]](#)
- Hondroyiannis, George, and Evangelia Papapetrou. 2002. Demographic transition and economic growth: Empirical evidence from Greece. *Journal of Population Economics* 15: 221–42. [\[CrossRef\]](#)
- Kabisch, Nadja, and Dagmar Haase. 2011. Diversifying European agglomerations: Evidence of urban population trends for the 21st century. *Population, Space and Place* 17: 236–53. [\[CrossRef\]](#)
- Kaika, Maria. 2012. The economic crisis seen from the everyday: Europe's nouveau poor and the global affective implications of a 'local' debt crisis. *City* 16: 422–30. [\[CrossRef\]](#)
- Kandyliis, George, Thomas Maloutas, and John Sayas. 2012. Immigration, inequality and diversity: Socio-ethnic hierarchy and spatial organization in Athens, Greece. *European Urban and Regional Studies* 19: 267–86. [\[CrossRef\]](#)
- Kandyliis, George. 2015. Levels of segregation, lines of closure: The spatiality of immigrants' social exclusion in Athens. *Local Economy* 30: 818–37. [\[CrossRef\]](#)
- Kashnitsky, Ilya, Joop De Beer, and Leo Van Wissen. 2017. Decomposition of regional convergence in population aging across Europe. *Genus* 73: 2. [\[CrossRef\]](#) [\[PubMed\]](#)
- Kasimis, Charalambos. 2008. Survival and expansion: Migrants in Greek rural regions. *Population, Space and Place* 14: 511–24. [\[CrossRef\]](#)
- Kelly, Claire, Agostino Ferrara, Geoff A. Wilson, Francesco Ripullone, Angelo Nolè, Nichola Harmer, and Luca Salvati. 2015. Community resilience and land degradation in forest and shrubland socio-ecological systems: Evidence from Gorgoglione, Basilicata, Italy. *Land Use Policy* 46: 11–20. [\[CrossRef\]](#)
- Kroll, Franziska, and Nadja Kabisch. 2012. The Relation of Diverging Urban Growth Processes and Demographic Change along an Urban-Rural Gradient. *Population, Space and Place* 18: 260–76. [\[CrossRef\]](#)
- Krueger, Rob, David Gibbs, and Constance Carr. 2018. Examining regional competitiveness and the pressures of rapid growth: An interpretive institutionalist account of policy responses in three city regions. *Environment and Planning C: Politics and Space* 36: 965–86. [\[CrossRef\]](#)
- Lamonica, Giuseppe R., Maria C. Recchioni, Francesco M. Chelli, and Luca Salvati. 2020. The efficiency of the cross-entropy method when estimating the technical coefficients of input–output tables. *Spatial Economic Analysis* 15: 62–91. [\[CrossRef\]](#)
- Lauf, Steffen, Dagmar Haase, Ralf Seppelt, and Nina Schwarz. 2012. Simulating demography and housing demand in an urban region under scenarios of growth and shrinkage. *Environment and Planning B: Planning and Design* 39: 229–46. [\[CrossRef\]](#)
- Lerch, Mathias. 2014. The role of migration in the urban transition: A demonstration from Albania. *Demography* 51: 1527–550. [\[CrossRef\]](#)
- Lerch, Mathias. 2016. Internal and international migration across the urban hierarchy in Albania. *Population Research and Policy Review* 35: 851–76. [\[CrossRef\]](#) [\[PubMed\]](#)
- Lesthaeghe, Ron, and Antonio Lopez-Gay. 2013. Spatial continuities and discontinuities in two successive demographic transitions: Spain and Belgium, 1880–2010. *Demographic Research* 28: 77–136. [\[CrossRef\]](#)
- Li, He, and Vlad Mykhnenko. 2018. Urban shrinkage with Chinese characteristics. *The Geographical Journal* 184: 398–412. [\[CrossRef\]](#)
- Liu, Lee. 2005. Fertility trends in China's more developed urban districts: The case of four cities. *Population, Space and Place* 11: 411–24. [\[CrossRef\]](#)
- Liu, Zhen, Shenghe Liu, and Yan Song. 2020. Understanding urban shrinkage in China: Developing a multi-dimensional conceptual model and conducting empirical examination from 2000 to 2010. *Habitat International* 104: 102256. [\[CrossRef\]](#)
- Longhi, Christian, and Antonio Musolesi. 2007. European cities in the process of economic integration: Towards structural convergence. *Annals of Regional Science* 41: 333–51. [\[CrossRef\]](#)
- Mallach, Alan, Annegret Haase, and Keiro Hattori. 2017. The shrinking city in comparative perspective: Contrasting dynamics and responses to urban shrinkage. *Cities* 69: 102–08. [\[CrossRef\]](#)
- Maloutas, Thomas, and Stavros Nikiforos Spyrellis. 2019. Segregation trends in Athens: The changing residential distribution of occupational categories during the 2000s. *Regional Studies* 54: 462–71. [\[CrossRef\]](#)
- Maloutas, Thomas. 2007. Segregation, social polarization and immigration in Athens during the 1990s: Theoretical expectations and contextual difference. *International Journal of Urban and Regional Research* 31: 733–58. [\[CrossRef\]](#)
- Martinez-Fernandez, Cristina, Ivonne Audirac, Sylvie Fol, and Emmanuele Cunningham-Sabot. 2012. Shrinking cities: Urban challenges of globalization. *International Journal of Urban and Regional Research* 36: 213–25. [\[CrossRef\]](#)
- Martori, Joan Carles, and Philippe Apparicio. 2011. Changes in spatial patterns of the immigrant population of a southern European metropolis: The case of the Barcelona metropolitan area (2001–2008). *Tijdschrift voor Economische en Sociale Geografie* 102: 562–81. [\[CrossRef\]](#)
- Michielin, Francesca. 2004. Lowest low fertility in an urban context: The role of migration in Turin, Italy. *Population, Space and Place* 10: 331–47. [\[CrossRef\]](#)
- Morelli, Vittorio Gargiulo, Kostas Rontos, and Luca Salvati. 2014. Between suburbanisation and re-urbanisation: Revisiting the urban life cycle in a Mediterranean compact city. *Urban Research & Practice* 7: 74–88.

- Nelle, Anja, Katrin Großmann, Dagmar Haase, Sigrun Kabisch, Dieter Rink, and Manuel Wolff. 2017. Urban shrinkage in Germany: An entangled web of conditions, debates and policies. *Cities* 69: 116–23. [\[CrossRef\]](#)
- Nijkamp, Peter, and Karima Kourtit. 2013. The “new urban Europe”: Global challenges and local responses in the urban century. *European Planning Studies* 21: 291–315. [\[CrossRef\]](#)
- Ogden, Philip E., and Ray Hall. 2000. Households, reurbanisation and the rise of living alone in the principal French cities 1975–90. *Urban Studies* 37: 367–90. [\[CrossRef\]](#)
- Oueslati, Walid, Seraphim Alvanides, and Guy Garrod. 2015. Determinants of urban sprawl in European cities. *Urban Studies* 52: 1594–614. [\[CrossRef\]](#)
- Panori, Anastasia, Yannis Psycharis, and Dimitris Ballas. 2019. Spatial segregation and migration in the city of Athens: Investigating the evolution of urban socio-spatial immigrant structures. *Population Space and Place* 25: e2209. [\[CrossRef\]](#)
- Pérez, Jesús M. González. 2010. The real estate and economic crisis: An opportunity for urban return and rehabilitation policies in Spain. *Sustainability* 2: 1571–601. [\[CrossRef\]](#)
- Perrin, Coline, Brigitte Nougaredes, Laura Sini, Paola Branduini, and Luca Salvati. 2018. Governance changes in peri-urban farmland protection following decentralisation: A comparison between Montpellier (France) and Rome (Italy). *Land Use Policy* 70: 535–46. [\[CrossRef\]](#)
- Pili, Silvia, Efstathios Grigoriadis, Margherita Carlucci, Matteo Clemente, and Luca Salvati. 2017. Towards sustainable growth? A multi-criteria assessment of (changing) urban forms. *Ecological Indicators* 76: 71–80. [\[CrossRef\]](#)
- Rauhut, Daniel. 2017. Polycentricity—one concept or many? *European Planning Studies* 25: 332–48. [\[CrossRef\]](#)
- Rees, Philip, Martin Bell, Marek Kupiszewski, Dorota Kupiszewska, Philipp Ueffing, Aude Bernard, Elin Charles-Edwards, and John Stillwell. 2017. The impact of internal migration on population redistribution: An international comparison. *Population, Space and Place* 23: e2036. [\[CrossRef\]](#)
- Remoundou, Kyriaki, Menelaos Gkartzios, and Guy Garrod. 2016. Conceptualizing Mobility in Times of Crisis: Towards Crisis-Led Counterurbanization? *Regional Studies* 50: 1663–674. [\[CrossRef\]](#)
- Repetti, Marion, Christopher Phillipson, and Toni Calasanti. 2008. Retirement Migration in Europe: A Choice for a Better Life? *Sociological Research Online*. [\[CrossRef\]](#)
- Reques Velasco, Pedro, and Vicente Rodriguez Rodriguez. 2000. The seven demographic Spains. Inter-municipal contrasts in age structure: Fertility and migration are the determining factors. *Espace Populations Sociétés* 18: 425–35. [\[CrossRef\]](#)
- Robinson, Jennifer. 2017. Cities in a world of cities: The comparative gesture. *International Journal of Urban and Regional Research* 35: 1–23. [\[CrossRef\]](#)
- Rontos, Kostas, Efstathios Grigoriadis, Adele Sateriano, Maria Syrmali, Ioannis Vavouras, and Luca Salvati. 2016. Lost in protest, found in segregation: Divided cities in the light of the 2015 “Οχι” referendum in Greece. *City, Culture and Society* 7: 139–48. [\[CrossRef\]](#)
- Rontos, Kostas. 2007. Prospects for a new family formation and for its impact on fertility: Some research evidences from Greece. *Statistical Review* 3: 1–9.
- Sabater, Albert, and Elspeth Graham. 2019. International migration and fertility variation in Spain during the economic recession: A spatial Durbin approach. *Applied Spatial Analysis and Policy* 12: 515–46. [\[CrossRef\]](#)
- Salvati, Luca, Adele Sateriano, and Efstathios Grigoriadis. 2016. Crisis and the city: Profiling urban growth under economic expansion and stagnation. *Letters in Spatial and Resource Sciences* 9: 329–42. [\[CrossRef\]](#)
- Salvati, Luca, Agostino Ferrara, and Francesco Chelli. 2018a. Long-term growth and metropolitan spatial structures: An analysis of factors influencing urban patch size under different economic cycles. *Geografisk Tidsskrift-Danish Journal of Geography* 118: 56–71. [\[CrossRef\]](#)
- Salvati, Luca, Ilaria Zambon, Francesco Maria Chelli, and Pere Serra. 2018b. Do spatial patterns of urbanization and land consumption reflect different socioeconomic contexts in Europe? *Science of the Total Environment* 625: 722–30. [\[CrossRef\]](#) [\[PubMed\]](#)
- Salvati, Luca, and Pere Serra. 2016. Estimating rapidity of change in complex urban systems: A multidimensional, local-scale approach. *Geographical Analysis* 48: 132–56. [\[CrossRef\]](#)
- Salvati, Luca, Maria Teresa Ciommi, Pere Serra, and Francesco M. Chelli. 2019. Exploring the spatial structure of housing prices under economic expansion and stagnation: The role of socio-demographic factors in metropolitan Rome, Italy. *Land Use Policy* 81: 143–52. [\[CrossRef\]](#)
- Salvati, Luca. 2016. The Dark Side of the Crisis: Disparities in per Capita income (2000–12) and the Urban-Rural Gradient in Greece. *Tijdschrift voor Economische en Sociale Geografie* 107: 628–41. [\[CrossRef\]](#)
- Schwarz, Nina, Dagmar Haase, and Ralf Seppelt. 2010. Omnipresent sprawl? A review of urban simulation models with respect to urban shrinkage. *Environment and Planning B: Planning and Design* 37: 265–83. [\[CrossRef\]](#)
- Scott, Allen J., and Michael Storper. 2015. The nature of cities: The scope and limits of urban theory. *International Journal of Urban and Regional Research* 39: 1–15. [\[CrossRef\]](#)
- Serra, Pere, Ana Vera, Antoni Francesc Tulla, and Luca Salvati. 2014. Beyond urban–rural dichotomy: Exploring socioeconomic and land-use processes of change in Spain (1991–2011). *Applied Geography* 55: 71–81. [\[CrossRef\]](#)
- Seto, Karen C., Roberto Sánchez-Rodríguez, and Michail Fragkias. 2010. The new geography of contemporary urbanization and the environment. *Annual Review of Environment and Resource* 35: 167–94. [\[CrossRef\]](#)
- Sevilla-Buitrago, Alvaro. 2013. Debating contemporary urban conflicts: A survey of selected scholars. *Cities* 31: 454–68. [\[CrossRef\]](#)

- Souliotis, Nicos. 2013. Cultural economy, sovereign debt crisis and the importance of local contexts: The case of Athens. *Cities* 33: 61–68. [\[CrossRef\]](#)
- Stergiou, Dimitrios P., Andreas Papatheodorou, and Paris Tsartas. 2017. Second home conversion during the economic crisis: The case of Artemida, Greece. *Social and Cultural Geography* 18: 1129–151. [\[CrossRef\]](#)
- Stockdale, Aileen. 2016. Contemporary and ‘Messy’ Rural In-migration Processes: Comparing Counterurban and Lateral Rural Migration. *Population, Space and Place* 22: 599–616. [\[CrossRef\]](#)
- Strozza, Salvatore, Federico Benassi, Raffaele Ferrara, and Gerardo Gallo. 2016. Recent demographic trends in the major Italian urban agglomerations: The role of foreigners. *Spatial Demography* 4: 39–70. [\[CrossRef\]](#)
- Tragaki, Alexandra, and Christos Bagavos. 2019. Fertility variations in the recession context: The case of Greece. *Genus* 75: 18. [\[CrossRef\]](#)
- Turok, Ivan, and Vlad Mykhnenko. 2007. The trajectories of European cities, 1960–2005. *Cities* 24: 165–82. [\[CrossRef\]](#)
- Vinci, Sabato, Gianluca Egidi, Rosanna Salvia, Antonio Gimenez Morera, and Luca Salvati. 2022. Natural population growth and urban management in metropolitan regions: Insights from pre-crisis and post-crisis Athens, Greece. *Urban Studies* 59: 2527–544. [\[CrossRef\]](#)
- Wang, Jian, Zhuqing Yang, and Xuepeng Qian. 2020a. Driving factors of urban shrinkage: Examining the role of local industrial diversity. *Cities* 99: 102646. [\[CrossRef\]](#)
- Wang, Zhifeng, Changyun Cao, Junhua Chen, and Hao Wang. 2020b. Does Land Finance Contraction Accelerate Urban Shrinkage? A Study Based on 84 Key Cities in China. *Journal of Urban Planning and Development* 146: 04020038. [\[CrossRef\]](#)
- Wolff, Manuel, and Thorsten Wiechmann. 2018. Urban growth and decline: Europe’s shrinking cities in a comparative perspective 1990–2010. *European Urban and Regional Studies* 25: 122–39. [\[CrossRef\]](#)
- Zambon, Iliaria, Anna Benedetti, Carlotta Ferrara, and Luca Salvati. 2018. Soil matters? A multivariate analysis of socioeconomic constraints to urban expansion in Mediterranean Europe. *Ecological Economics* 146: 173–83. [\[CrossRef\]](#)
- Zambon, Iliaria, Pere Serra, David Sauri, Margherita Carlucci, and Luca Salvati. 2017. Beyond the ‘Mediterranean city’: Socioeconomic disparities and urban sprawl in three Southern European cities. *Geografiska Annaler: Series B, Human Geography* 99: 319–37. [\[CrossRef\]](#)

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