

# Connecting demographic growth to housing prices in Bucharest's neighbouring towns

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**Abstract**: Large cities have always been popular among young professionals worldwide. However, their real estate availability is limited, leading to an increase in housing prices. As a result, people are looking towards the peripheral areas for affordable housing options. This study explores the relationship between house prices and demographic changes in the areas around Bucharest. It analyses the reasons that led people to buy homes in the towns near Bucharest. The methodology used a combination of research methods to investigate the factors influencing home buyers' choices in Otopeni, Voluntari, Chitila, Pantelimon, Popeşti Leordeni, Măgurele, and Bragadiru. Semi-structured interviews were conducted to identify the main factors contributing to buyers' convictions. Results show that affordable prices are a significant factor in buyers' decisions. The study's limits stem from analysing a short one-year period, which prompts further analysis. The findings of this study can provide valuable insights for local development strategies and improvements in transportation infrastructure between Bucharest and its neighbouring towns.

## Key Words: home, bank loan, income, mobility, price

Article Info: Received: *July 17, 2023*; Revised: *September 26, 2023*; Accepted: *October 20, 2023*; Online: *November 30, 2023*.

# Introduction

Romania's current economic situation, marked by increasing inflation and relatively low incomes, has given rise to new trends in housing acquisition. Resolving the issue of owning a home can be achieved through accessing bank loans in areas where prices align with income levels. However, only a portion of the population meets the eligibility criteria (Ambrose et al., 2022). Simultaneously, housing prices, particularly in the capital city and major urban centres, have risen due to inflationary pressures. The high costs of construction materials have contributed to the overall surge in prices for newly constructed homes (Cuestas et al., 2020). Considering these criteria, those who purchase a

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home in one of the satellite towns of significant cities must consider the relationship between the natural and built environment, housing prices, and urban planning policies. Land prices determine the affordable prices in these smaller towns. The smaller settlements near the capital are attractive not only because of slightly lower prices. They have a much better balance between green areas, reduced congestion, and the presence of local food markets and living spaces, and their attractiveness is relatively high (Dumitrache et al., 2016). The population growth in these towns will eventually lead to significant urban congestion (Kim et al., 2020). The advantages they possess today may result in maintenance or even an increase in housing prices in the future.

Another indicator that becomes important is the quality of primary and secondary schools. Since many of those who settle in these towns are young, establishing a quality educational environment can increase attractiveness and housing prices. Education has the potential to capitalise on property values by enhancing their worth. Awareness of these details motivates many individuals with the necessary down payment to access a bank loan and purchase a home in one of these towns as an investment (Zhang et al., 2009). Many buyers of small-sized properties (studios or one-bedroom apartments) can rent or sell them after paying them off. However, many rely on a bank loan, and rather than being perceived as a negative element, it is considered beneficial (Lee et al., 2006; Yildirim et al., 2020; Teodorescu et al., 2021).

Real estate agents play a significant role in speculating and conveying all these aspects. They are crucial in facilitating transactions for numerous properties and maintaining prices at specific values. This influence is particularly noticeable when purchasing through a loan, as agents impact the bank instalments and, more importantly, the property value. Magurele, Popeşti-Leordeni, Bragadiru, Voluntari, Pantelimon, and Chitila are located in Romania, near Bucharest, the capital city. These towns share a common characteristic of being part of the urbanisation phenomenon around Bucharest. They have experienced significant growth in population, infrastructure development, and economic activities. These towns serve as important residential, commercial, and research hubs, attracting diverse residents and businesses. With their strategic locations and unique socioeconomic dynamics, these towns provide valuable insights into the challenges and opportunities associated with urban growth, making them fascinating subjects for scientific analysis and research in the context of urban studies.

The study aimed to analyse the population's tendency to gravitate towards the satellite towns of the capital, Bucharest. The primary motivation behind this inclination is their close connection with the capital itself. The majority of individuals in question are employed in Bucharest. Additionally, a population segment who, while residing in one of these satellite towns, also work close to their residence. However, it is essential to note that this scenario occurs after the property acquisition and is not the primary reason for obtaining a bank loan to purchase a home.

These towns' housing attractiveness is primarily driven by price. The authors have analysed this price in two ways: the overall or total cost of a home, without taking into account its size or location concerning other factors (main roads, proximity to critical institutions, playgrounds for children, schools and kindergartens, church, shops, markets, forests, metro, etc.), as well as the price per m<sup>2</sup> of these homes (Osland et al., 2012; Liu et al., 2022). This second type of price can highlight the frequently purchased housing types (studio, 1-bedroom, 2-bedroom, larger apartments, or larger individual houses). A comprehensive understanding of housing quality can be obtained through data analysis,

including vital factors such as space and proximity to natural areas. This research holds the potential to offer valuable guidance to real estate developers and local government officials, enabling them to make informed decisions that can positively impact the community (Petre et al., 2021).

The research study focused solely on 2022, as accessing banking data proves challenging. Unfortunately, there is a lack of comprehensive datasets that would allow tracking the fluctuation of prices per m<sup>2</sup> in these satellite towns (Wang et al., 2018; Jiang et al., 2022). The concern for safeguarding the personal data of individuals obtaining bank loans hinders the availability of specific banking data, including final property prices, property sizes, borrower incomes, and age demographics, for each year (Holly et al., 1997; Zeng et al., 2019). Some data only provide insights into particular aspects or serve as informational messages, such as the overall number of loans accessed from commercial banks (Borgersen et al., 2014).

#### Methods

The methodology is based on examining the files from the Deposit Guarantee Fund and the Credit Bureau and the semi-structured interviews carried out to understand the motivations behind the decisions of the people who purchased their homes through bank credit. Mapping using QGIS Version 3.30.2 was designed to create maps illustrating the price per m<sup>2</sup> of built properties. Data from these sources were analysed quantitatively using statistical techniques and qualitatively through thematic analysis of interview transcripts.

The average price was calculated on a sample of homes purchased through bank loans, segmenting the length of the streets into lengths of 1 km. The estimated average price can be mathematically expressed as follows:

Average price = 
$$\frac{\sum m^2 + \sum price}{\sum m^2}$$

- $\Sigma m^2$  is the sum of all dwelling's surfaces
- **Sprice** represents the sum of all dwellings

The average price calculation is relevant for the research as it provides valuable insights into the overall pricing trends and patterns within the studied area. By analysing the average price of homes purchased through bank loans, we can better understand the affordability and market value of properties in the region. This information is crucial for assessing the real estate market dynamics, identifying potential investment opportunities, and making informed decisions about housing policies and urban development strategies. Additionally, the average price serves as a quantitative indicator that helps establish comparisons and draw meaningful conclusions about the economic aspects of the studied housing market.

It is important to note that this study's aim was limited to a specific timeframe and region, and the findings may need to be more generalisable to broader contexts.

Combining data analysis, interviews, and cartographic representation offers valuable insights into homeownership patterns and can inform policymakers, financial institutions, and individuals interested in the housing market.

#### Data source

The researchers used data from the Deposit Guarantee Fund (FGDB) and Credit Bureau (BC) to gather valuable information on individuals who had acquired real estate or mortgage loans. To collect data on building permits issued between 2002 and 2022, the authors checked the archives of the six city halls. After compiling this information into a database, we were able to generate a visual representation.

A comprehensive analysis of 6,840 loan files from 2022 was conducted, coupled with in-person interviews with property buyers located in towns near Bucharest. Common factors that significantly influenced real estate and mortgage loan decisions were identified through interview transcription. This scientific approach thoroughly understood the underlying factors that impact these crucial decisions. A comprehensive study consisted of interviews with 860 individuals across seven different towns.

Analysis of the data revealed that the most commonly mentioned factors were "affordable prices," "green spaces," and "accessibility". Utilizing data on housing prices from FGDB and BC, we generated graphical representations of the costs per m<sup>2</sup> in all satellite zones, confirming one of the three factors above (price, accessibility, and greenery). For most individuals who have decided to settle in these towns and invest in property, the primary consideration is the price of homes, based on real estate or mortgage loans.

### Results

Various factors, including local economic development and area-specific variables, influence housing pricing in towns surrounding Bucharest. Our research indicates that the highest housing prices are in Otopeni and Voluntari, located in the capital's northern region. These areas offer unique economic advantages that contribute to their elevated property values. This study aimed to evaluate population growth in satellite towns by analysing their demographic evolution. Table 1 shows a significant increase in some towns in a relatively brief period (2002-2022).

The analysis of housing prices per m<sup>2</sup> in different towns shows areas with higher and lower prices. Both zones are attractive to buyers who have secured bank loans, but there are noticeable differences in the numbers across all towns. The higher-priced areas are more desirable, which could be attributed to the better street and commercial infrastructure, accessibility, utilities, schools, kindergartens, and other amenities available in these zones.

Year	Chitila	Măgurele	Otopeni	Voluntari	Pantelimon	Bragadiru	Popești Leordeni
2002	12643	9272	10215	30032	16019	8165	15115
2011	14184	11041	13861	42944	25596	15329	21895
2022	14762	14414	21750	47366	32873	41180	53431

 Table 1. The number of residents in the seven towns analysed between 2002-2022

Data source: National Institute of Statistics

No. of people	%	Reason for purchasing a property	Medium age (years old)
98	11.3	Affordable prices for consumer goods	25-35
288	33.4	Affordable price	25-40
56	6.5	Accessibility from/to places of origin	25-55
61	7	Job opportunities nearby	30-45
18	2	Extended-hour schools and affordable daycare	30-45
67	7.8	Green spaces	30-55
37	4.3	Desire to start a business	35-50
99	11.5	Favourable ratio of housing size to price	35-55
9	1	Access to locally produced food supplies	35-55
82	9.5	Peace and clean air	45-60
33	3.8	Ability to avoid crowds and noisy neighbours	45-60
12	1.4	Presence of nearby agro-food markets	50-60

Table 2. The reason for purchasing mentioned during interviews

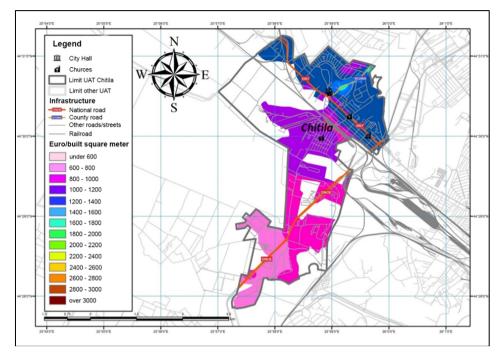
Source: Semi-structured interviews

On the other hand, areas with lower prices appeal to people looking to establish a business, including those interested in larger plots of land or industrial warehouses or those with lower incomes, below 600 euros, who do not prioritize proximity to educational institutions or commercial hubs like agri-food markets or supermarkets. The results of the semi-structured interview regarding the purchase of a home in the satellite of Bucharest reveal three primary directions, as shown in Table 2.

Housing affordability is a significant factor for people aged 25-40 when purchasing a property. Financial considerations are crucial for younger adults who desire cost-effective housing options. For those aged 30-45, proximity to job opportunities is also essential when deciding on a residential location. Living in Otopeni allows for convenient access to workplaces. Families with children aged 30-45 consider the availability of extended-hour schools and affordable daycare facilities crucial in their decision-making process. Residents aged 30-55 value access to green spaces, contributing to the community's well-being and enhancing the balance between urban living and nature.

People aged 35-55 prefer reasonably priced and spacious accommodation. They emphasize the favourable ratio of housing size to price, which indicates the significance of finding suitable living space that meets both size requirements and budget constraints. Locally produced food supplies become increasingly crucial for individuals in this age group, highlighting the growing focus on sustainable and locally sourced food options. For those in their middle and later years (45-60), peace, clean air, and avoiding crowds and noisy neighbours become more critical. Nearby agro-food markets are also desirable, indicating a preference for fresh and locally sourced food products.

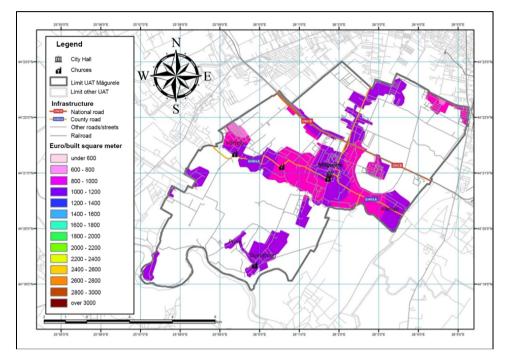
Positioned in the northern area of the capital, the town of Chitila is perhaps the most affordable satellite town in terms of housing prices while still being in proximity to Bucharest. From a demographic perspective, it exhibits little population growth. The most significant areas are occupied by industrial spaces and the construction of commercial markets, with residential developments being less prevalent. Land prices have been pivotal in attracting companies focused on storage or production activities. Despite its previously unappealing reputation for residential living, significant transformations have occurred in the past 20 years.



**Figure 1.** Housing prices in Chitila based on the price per m<sup>2</sup> in areas where real estate transactions have been recorded through bank loans

Consequently, this has impacted the prices of smaller-sized housing units, particularly studios or one-bedroom apartments, which are sought after by those desiring convenient access to their workplaces. These dwellings also appeal to students who come to study in Bucharest, primarily from the northern and northwestern regions of the city. The presence of young individuals can be attributed to the relatively lower monthly costs associated with bank loan instalments compared to rental expenses. The highest property prices are in the northeastern region, primarily due to nearby green areas, such as the adjacent forest. The prevalence of residential properties, as opposed to industrial facilities, contributes to the upward price trend, with average values ranging from 1000 to 1,400 euros per m<sup>2</sup> (Figure 1).

The average size of transacted properties in this eastern area, located east of DN7, is approximately 65-67 m<sup>2</sup>. Numerous smaller properties, ranging from 35 to 47 m<sup>2</sup>, are highly sought after and frequently traded. The town of Măgurele has experienced a steady population growth over the last 20 years, primarily due to people moving in rather than a natural increase in births. The town's affordable prices make it an attractive option for those with low incomes or students attending universities in Bucharest. Many of the respondents stated that acquiring a residence for the duration of their studies is a top priority. The University of Bucharest's Faculty of Physics and the National Institute for Research and Development in Physics and Nuclear Engineering "Horia Hulubei" are located in Măgurele, contributing to the town's housing landscape. Students and employees of these institutions often prefer small, affordable apartments like studios or one-bedroom units, which typically change ownership every 5-6 years. The income range for those purchasing such housing is between 400-600 euros.

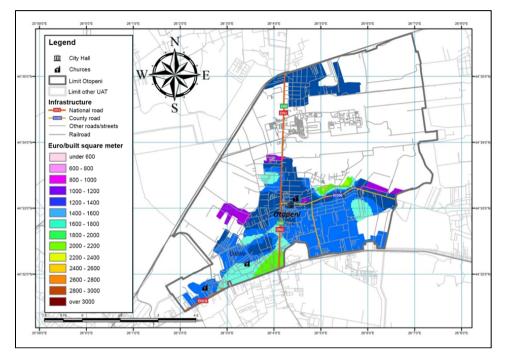


**Figure 2.** Housing prices in Măgurele based on the price per m<sup>2</sup> in areas where real estate transactions have been recorded through bank loans

Based on bank analyses and conducted interviews, the value of a residence in Măgurele ranges from 550 to 1,100 euros per m<sup>2</sup> (Figure 2). In the northwestern part of the town, individual homes are available for those seeking larger residences, priced between 1,000-1,800 euros per m2, depending on the property's quality and additional benefits.

Over the past 20 years, Otopeni has experienced a slight demographic shift due to high birth rates and people being drawn to spacious areas, green spaces, and the presence of "Henri Coandă" Airport. The prospect of constructing a metro line has also contributed to this growth. The price per m<sup>2</sup> of housing in Otopeni ranges between 1,000 euros and 2,400 euros, with the highest prices in the northern and southern parts of the town near the forest. On average, properties have been sold for around 1,600 euros per m<sup>2</sup> (Figure 3). The average area of homes sold through bank loans in this town is approximately 63.5 m<sup>2</sup>, but homes larger than 90 m<sup>2</sup> have average prices ranging from 1,600 euros to 2,200 euros per m<sup>2</sup>. The noise generated by flight corridors may also affect housing prices, but based on interviews with homebuyers in this town, it is not a major concern.

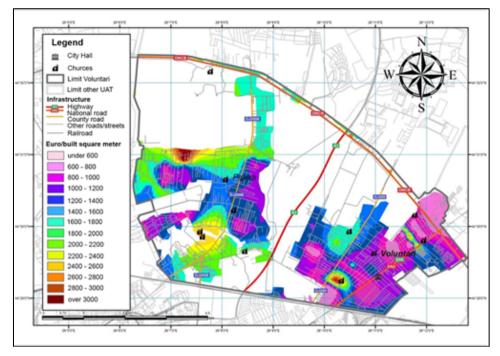
Voluntari is one of the largest towns near Bucharest, with substantial population growth since 2002. It is currently the largest satellite town in 2022. Thanks to the generous land, real estate investors have built large residential complexes with top-notch amenities, especially in the northwestern area. But, the number of newly constructed homes is low, contributing to the high prices. Voluntari has the most significant variations in housing prices per m<sup>2</sup>, with two preferred buyer zones.



**Figure 3.** Housing prices in Otopeni based on the price per m<sup>2</sup> in areas where real estate transactions have been recorded through bank loans

The northern-northwestern zone is an exclusive residential area with prices exceeding 300 euros per m<sup>2</sup> (Figure 4). Our study found that seven such properties were purchased, with an average area between 126 and 228 m<sup>2</sup>. The remaining homes purchased through bank loans had average prices ranging from 1,600 to 2,400 euros per m<sup>2</sup>, with an average area of 76.5 m<sup>2</sup>. Most of these homes are new constructions.

The A3 Bucharest-Ploiesti Highway is a dividing line for two areas within Voluntari. The southern-southeastern region has two notable features. Firstly, some homes are between 15 and 30 years old, with small areas that measure up to 60 m<sup>2</sup>. The cost of these homes can range from 650 to 1,200 euros per m<sup>2</sup>, depending on their upkeep and renovation needs. Secondly, this area has a commercial zone comprising warehouses, semi-industrial constructions, workshops, and some living quarters. These properties are mainly located on the eastern side, on either side of the DNCB. On average, the prices for these properties range from 550-1,000 euros per m<sup>2</sup>. Although, some areas with homes can be pretty expensive, with prices exceeding 2,500 euros per m<sup>2</sup>. This is especially true for newly constructed individual houses with a more than 140 m<sup>2</sup> surface. The average price for these homes is around 1,200-2,000 euros per m<sup>2</sup> on each street within the southern-southeastern sector of Voluntari. Prospective buyers in Voluntari have diverse options regarding housing patterns and prices. This is due to the variation in age, size, and location of the properties available, allowing individuals to choose residences that meet their preferences and requirements. Furthermore, the southern-southeastern region has a dynamic character due to residential and commercial zones, providing a blend of living spaces and business opportunities within the town.

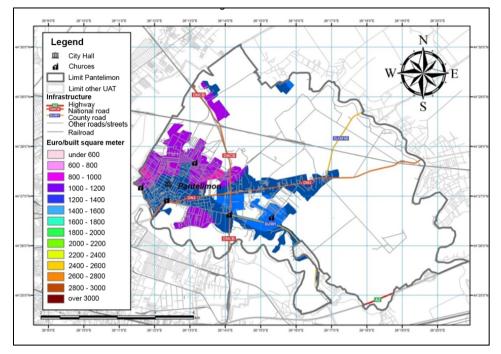


**Figure 4.** Housing prices in Voluntari based on the price per m<sup>2</sup> in areas where real estate transactions have been recorded through bank loans

In the past 20 years, Pantelimon's population has grown significantly, thanks to high birth rates and the town's appeal to new residents. Consequently, the region has become a hub for affordable and innovative housing options. Many young adults and people aged 45-55 are buying homes in Pantelimon because of the relatively low prices (ranging from 67 to 102 m<sup>2</sup>) and the convenient accessibility to their workplaces. These homes also come with allocated land, making them more attractive to buyers. The low prices are due to the low prices on which the real estate developers have built residential complexes (Figure 5).

Individual houses are particularly appealing for buyers aged 45 and over because they offer a comfortable and affordable living space in Pantelimon. This housing trend in Pantelimon reflects the broader dynamics of urban development and the evolving preferences of prospective homebuyers. The availability of affordable and well-designed housing options fosters a thriving residential market, accommodating the diverse needs of different age groups. The accessibility to employment centres, combined with the appealing features of these homes, contributes to the growth and desirability of Pantelimon as an attractive residential destination.

Pantelimon has emerged as an attractive residential destination due to its affordability, convenient accessibility to workplaces, and the provision of allocated land for housing. The availability of individual houses and residential complexes has catered to the diverse housing preferences of different age groups, particularly appealing to buyers aged 45 and above. The low land prices, integration of green spaces, and investment opportunities further contribute to Pantelimon's growing popularity. It is crucial to ensure sustainable development practices and address infrastructure needs to support the continued growth and livability of Pantelimon as a thriving residential area.



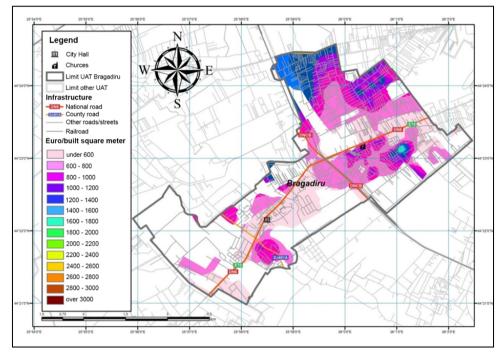
**Figure 5.** Housing prices in Pantelimon based on the price per m<sup>2</sup> in areas where real estate transactions have been recorded through bank loans

#### Source: Processing according to BNR statistics

Bragadiru has experienced a significant increase in population since 2011. Before this date, the town was not very attractive due to the lack of accessibility to Bucharest. Despite the short distance, it was particularly difficult for individuals who had to commute between the two settlements. The lack of infrastructure, such as asphalt roads, water supply and sewer networks, made the town less desirable for potential residents. As a result, many constructed neighbourhoods needed buyers. Bragadiru has become more appealing in recent years due to the affordable prices of homes with an average size ranging from 70 to 140 m<sup>2</sup> and the large land area that comes with individual houses or duplexes. The price of homes varies depending on the availability of amenities such as water, sewerage, and electricity networks, as well as the quality of the street layout.

Bragadiru has become a popular place for families to settle in Bucharest and the surrounding areas, thanks to recent changes and better transportation links to the capital. The population has grown significantly from 8,000 in 2002 to over 40,000 in 2022, making it a desirable satellite town. Homes in the westernnorthwestern area are the most expensive, ranging from 1,200 to 1,800 euros per  $m^2$ , as they are an extension of a Bucharest neighbourhood (Figure 6). In contrast, prices in the southern area are lower, ranging from 550 to 1,000 euros per  $m^2$ , due to differences in local amenities such as paved streets, sewer networks, access to drinking water, and electricity grid.

Bragadiru must continue to invest in infrastructure development and public amenities to sustain this growth and meet its residents' evolving needs. Expanding essential services such as water supply, sewer networks, and electricity grids is crucial to enhance the quality of life for residents and attract further investment. Moreover, maintaining and improving existing road networks and transportation links will ensure convenient connectivity to Bucharest and neighbouring areas.



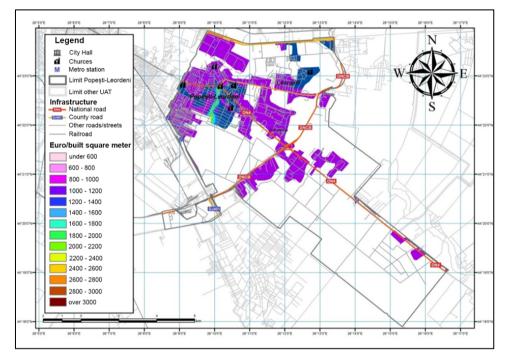
**Figure 6.** Housing prices in Bragadiru based on the price per m<sup>2</sup> in areas where real estate transactions have been recorded through bank loans

Source: Processing according to BNR statistics

Popesti-Leordeni is a town that can be considered a neighbourhood of Bucharest. It has excellent transportation connections, a strategic location, and a metro system, making it one of Romania's fastest-growing towns. The population grew from just 15,000 residents in 2002 to over 53,000 in 2022. Popesti-Leordeni is a "bedroom town" with two metro stations that make commuting easy and connect it to Bucharest. The local administration and real estate developers have encouraged housing construction, resulting in favourable local development. Most residents work in Bucharest, but they pay taxes, buy cars, and consume services in Popești-Leordeni, which supports the town's growth. The homes analysed in this study range from 800 to 1,400 euros per  $m^2$  (Figure 7). The highest prices, around 1,600 euros per m<sup>2</sup>, are recorded for homes located along the main access road, DN4, in the town's central area where the facilities provided by the administrative institutions are concentrated (the area between DN4 and DJ301). Additionally, higher prices are found for homes near the metro stations in the town's western area.

Another factor influencing housing prices in Popești-Leordeni is the presence of amenities and services in the vicinity. The availability of quality schools, healthcare facilities, shopping centres, and recreational areas can contribute to higher property prices in specific neighbourhoods. Areas with well-developed infrastructure and a range of amenities tend to be more sought after by homebuyers, reflecting their higher prices.

The urban planning and zoning regulations in Popeşti-Leordeni also play a significant role in shaping the housing market. The town's administration strives to create a harmonious and sustainable urban environment by implementing appropriate land-use policies and balancing residential, commercial, and green spaces. These efforts contribute to the overall appeal and livability of the town, which, in turn, can influence housing prices. The continuous development and careful urban planning contribute to its attractiveness as a residential destination and positively impact the value of properties.



**Figure 7.** Housing prices in Popești-Leordeni based on the price per m<sup>2</sup> in areas where real estate transactions have been recorded through bank loans

Source: Processing according to BNR statistics

Regarding studio apartments, the farthest distance from the place of origin was reported by someone from Jibou Town. This individual's purpose was to work at an IT company in Bucharest. On the other hand, the shortest distance was determined by someone who lives and works in Otopeni (Table 3).

For 1-bedroom apartments, the person who lived the farthest away from their origin was a Suceava student. Meanwhile, four people working only a few hundred meters from their purchased property reported the shortest distance to their workplace. These individuals were from Pantelimon. In the case of 2bedroom apartments, the owner who came to the farthest distance from their place of origin was someone who worked in the medical devices field and moved to Chitila from Borşa, Maramureş County. On the other hand, the person who lives closest to their workplace was a person who bought an apartment on the ground floor of the building where she works.

Type of housing	No. of dwellings	Usable Area (m²)	Duration of acquisition (years)		No. of people from another location	Maximum distance from origin area (km)	Maximum/ Minimum distance to workplace/ university
Studio	129	28.5 – 48.3	15 - 20	57	72	540	17/0.5
1 bedroom apartment	214	43.5 – 68.7	15 – 25	75	139	440	19/0.3
2 bedroom apartment		53.3 – 88	10 - 35	38	64	536	18/0.1
3 and 4- bedroom apartment	116	78 – 167.5	15 - 35	43	73	580	18/0.3
Individual house	299	43-310	10 - 35	104	195	600	19/0

 Table 3. Statistical overview of homeowners who acquired properties through a bank loan in the satellite towns of Bucharest in 2022 (860 individuals)

Source: Semi-structured interviews

For those who purchased apartments with more than 3 bedrooms, the farthest distance travelled was also found among individuals from Maramureş County. One came from Baia Mare (north Maramureş) and settled in Voluntari. The shortest distance travelled was by an individual who works at a bank near his purchased residence, which was also the reason for acquiring that living space.

The most commonly mentioned places of origin for individual houses are the localities in the neighbouring counties and Bucharest. Localities at a greater distance include the towns of Oradea, Piatra Neamt, and a series of rural areas. Many people who buy individual houses prefer to work from home, which is why they purchase. The IT sector is the most commonly mentioned industry in this category. Cities like Bucharest offer significant attractions, but nearby towns also provide valuable opportunities with a good balance between spaciousness and affordable prices (Cioclu et al., 2021). These towns have advantages in terms of educational infrastructure, cultural activities, attracting investors, and even the overall appearance of the surrounding areas. Furthermore, these towns provide economic and demographic relief from the capital's congestion.

#### **Challenges and perspectives**

As the population of the cities surrounding Romania's capital, Bucharest continues to grow, the effects on urban life can be both positive and negative. The seven analysed towns have all experienced growth but to varying degrees. On the positive side, this growth has led to modernization and expansion of commercial spaces, investment and job creation, improvements in education, and the emergence of cultural buildings. The transportation network has also improved, with upgrades to roads, gas and electricity networks, cable and internet. But there are adverse effects as well. Overcrowding, higher housing prices, increased daily expenses, less green space, and higher levels of pollution (including noise) are all issues that large cities face today.

After examining the housing prices in towns near Bucharest, it is evident that there are distinct areas with high and low prices. This results in significant differences in the cost of urban housing and can lead to a population separation based on income. "Expensive areas" may emerge, not only for housing but also for services, food, and other exclusive activities. This phenomenon exists worldwide in cities of all sizes. Despite this, there are also "affordable areas" that remain accessible to those with modest incomes.

To accommodate these individuals, smaller-sized homes are being built at increasingly affordable prices, often at the expense of green spaces. While this helps to make housing more accessible, it also increases the risk of overcrowding, pollution, and insecurity.

These price differentials can have both positive and negative impacts on the town. While affordable areas may attract people now, they may eventually become "expensive areas" in the future due to the potential for price growth.

# Conclusions

This study explores the relationship between population growth in towns surrounding Bucharest, the capital of Romania, and the main factors contributing to this demographic shift. The research revealed that more than half of the buyers of newly constructed properties come from outside the area. They are attracted to affordable prices, access to fresh produce, green spaces, and spacious layouts, among other things. Single-family homes and multi-story residences with more spacious layouts are trendy, mainly due to the COVID-19 pandemic. Many people sought larger living spaces with outdoor areas during periods of restricted mobility. A number of 860 individuals from seven towns were interviewed for this study, including those who purchased single-family homes, duplexes with yards, or apartments with more than two bedrooms. These properties are purchased by people who used to live in Bucharest or nearby towns and those from other counties across the country. These towns appeal to people of all income levels due to their residential and recreational areas.

## References

- Ambrose, B.W., Eichholtz, P. and Lindenthal, T., (2013), "House Prices and Fundamentals: 355 Years of Evidence", *Journal of Money, Credit and Banking*, vol. 45, no. 2/3, p. 477–491.
- Borgersen, T.A. (2014), "Housing Careers, House Price Dispersion and the Housing Market Multiplier", *Housing Theory and Society*, vol. 31, no. 1, p. 91–118.
- Cioclu, A., Teodorescu, C. and Cazacu, C., (2021), "The influence of the SARS-Cov 2 Pandemic on Loans in Bucharest – Ilfov", *Zeszyty Naukowe UPH seria Administracja i Zarządzanie*, vol. 57, p. 130.
- Cuestas, J.C. and Kukk, M., (2020), "The Interaction between Housing Prices and Housing Credit: Evidence from a Country with Rapid Credit Accumulation", *Journal of Economic Studies*, vol. 48, no. 1, p. 191–209.

- Dumitrache, L., Nae, M., Dumbrăveanu, D., Simion, G. and Suditu, B. (2016), "Contrasting Clustering in Health Care Provision in Romania: Spatial and Aspatial Limitations", *Procedia Environmental Sciences*, vol. 32, p. 290-299.
- Holly, S. and Jones, N. (1997), "House Prices since the 1940s: Cointegration, Demography and Asymmetries", *Economic Modelling*, vol, 14, no. 4, p. 549– 565.
- Jiang, X., Jia, Z., Li, L. and Zhao, T. (2022), "Understanding Housing Prices Using Geographic Big Data: A Case Study in Shenzhen", *Sustainability*, vol. 14, no. 9, p. 5307
- Kim, E.J. and Kim, H. (2020), "Neighborhood Walkability and Housing Prices: A Correlation Study", *Sustainability*, vol. 12, no. 2, p. 593
- Lee, M. and Kelley Pace, R., (2006), "Local Housing Prices and Mortgage Refinancing in US Cities", *Property Management*, vol. 24, no. 4, p. 427–441.
- Liu, Z., Ye, J., Ren, G. and Feng, S. (2022), "The Effect of School Quality on House Prices: Evidence from Shanghai, China", *Land*, vol. 11, no. 11, p. 1894.
- Osland, L. and Pryce, G. (2012), "Housing Prices and Multiple Employment Nodes: Is the Relationship Nonmonotonic?", *Housing Studies*, vol. 27, no. 8, p. 1182–1208
- Petre, B., Teodorescu, C., Dumitrașc, A.V., Ducman, A. and Cazacu, C. (2021), "Expansion of Satellite Towns' residential Area in the Context of Highlighting the Polarizing Role of big Metropolises. Case Study: Măgurele, Romania", *International Scientific Conference GEOBALCANICA* 2021, p. 359-366.
- Teodorescu, C., Ducman, A., Szemkovic, L.S., Bleotu, I. and Cazacu, C. (2021), "The analysis of the loan indebtfulness degree of romania's population during the years 2002-2019", *Proceedings of the 2021; Geobalcanica Society*, Ohrid, Macedonia, p. 387–394.
- Wang, S., Wang, J. and Wang, Y. (2018), "Effect of Land Prices on the Spatial Differentiation of Housing Prices: Evidence from Cross-County Analyses in China", *Journal of Geographical Sciences*, vol. 28, p. 725–740.
- Yildirim, A. and Kaya, A.A. (2020), "Regional Housing Market in Turkey: Convergence Analysis for NUTS-2", *Sosyoekonomi Journal*, no. 28, p. 46.
- Zeng, S., Zhang, X., Wang, X. and Zeng, G. (2019), "Population Aging, Household Savings and Asset Prices: A Study Based on Urban Commercial Housing Prices", *Sustainability*, vol. 11, no. 11, p. 3194.
- Zhang, E.G., Wang, R.Y. and Luo, X.Y. (2009), "Land Price and Housing Rental Price of the Relationship Based on ECM", *Proceedings of the 2009 International Conference on Public Economics and Management, ICPEM*, Xiamen, P.R. China, November 28-29, p. 391-394.