

IS THERE A RELATIONSHIP BETWEEN HOME OWNERSHIP AND UNEMPLOYMENT RATE IN ROMANIA?

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Abstract: A country's home ownership can indicate a high level of development. At the same time, social factors may contribute to low home ownership, triggering imbalances in the unemployment rate. The historical evolution of the home ownership in Romania was also analyzed. The aim of this article is to verify the hypothesis that there is a direct relationship between the increase in home ownership and the unemployment rate. More precisely, the analysis focuses on whether the growth of home ownership is or can represent the effect of the rise in the unemployment rate. Work hypotheses were analysed starting from the manner in which home ownership is classified by categories referring to the status in the labour market, as well as by property type. The results suggest no direct relation between the home ownership rate and unemployment rate in Romania, in contrast with recent specialized literature at the European level.

JEL Classification: R20, R21, R31

Keywords: private home ownership, unemployment rate, behaviour of buyers, real estate market

1. Introduction

The financial crisis and the period after the crisis have determined profound changes in the economic system (Iamandi & Munteanu, 2014), while economic resilience increased the capacity for recovering the negative effects of external shocks. (Zaman & Vasile, 2014). From this point of view, analysing the housing market as a correlation with other economic indicators represents a quest that is not only relevant but also necessary. Investigating the relationship between a country's home ownership level and its unemployment rate has been the focus of numerous research studies, which will furthermore be presented. Such studies aimed at analysing the consequences of a high level of private home ownership, its

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relationship with job duration and salary level or the dynamics of private home ownership. Before purchasing a real estate property, a tenant may increase productivity in order to reach a level of income needed to become a home owner. As soon as he/she becomes an owner, the incentive for increasing his/her productivity, while working more hours, becomes even higher, due to the need to pay the instalments of the credit, which was taken out in order to purchase the respective property in the first place (Dietz & Haurin, 2003). This research had as an objective to calculate the percentage increase/decrease of these two indicators. Thus, a study on developed countries among which USA, UK, Italy, France and Sweden has revealed that a 10% increase in home ownership leads to a 2% rise in the unemployment rate (Oswald, 1996). Another research has indicated that a higher level of private home ownership in the US is associated with reduced job mobility, greater commuting times and fewer new businesses (Blanchflower & Oswald, 2013). Home owners with higher incomes have more mobility than tenants with low incomes, when the loss associated with the possible loss of the work place is higher than the costs associated with owning or renting a house. An economy in recession reduces regional mobility, while asymmetric shocks lead to higher migration in developing areas, leading to a decline in the labour force of the respective area (Dohmen, 2005). Another study referring to Finland has shown the fact that although home owners are unlikely to become unemployed, there are certain factors which limit the positive effects of home ownership in case the purchase was made by taking out a loan: i.e. lower consumption or higher competition in the labour market (Laamanen, 2013). Taking out a mortgage in order to buy a house may enhance the relationship between the unemployment rate and poor health. Thus, Lau and Leng have studied this effect, concluding that there is a closer connection between the unemployment rate and poor health in the case of house owners with a mortgage loan which is over 80% of the value of the home (Lau & Leung, 2014). This can be enhanced by the decline in real estate prices in an economy in recession. A 10% rise in the likelihood of future unemployment leads to a 2% decrease in the likelihood of investing in real estate property. Conversely, a similar variation of the income level triggers a decrease in the likelihood of investment by 0.2%-0.3% (Moriizumi & Naoi, 2011). Thus, the investment trend is not affected by the decrease of the income.

At the same time, the positive aspects of home ownership have been analysed in numerous articles. Thus, a high level of home ownership has a positive impact on neighbourhoods and the community in general, by maintaining a high level of stability among the inhabitants. Moreover, a high number of inhabitants who are renting a house indicates high poverty and unemployment rates in the respective neighbourhood (Galster, Quercia, & Cortes, 2000). The relationship between home ownership and the future income has been analysed, the results showing a rise in the income of the families who had recently become home owners. This can be explained by the fact that the families which expect a rise in their income are more likely to buy a home but also by the fact that a high home ownership level leads to the intensification of efforts to generate or stabilize the income (Haurin & Rosenthal, 2005). In the long term, high home ownership also leads to increased future income, excluding the effect of further education or increased work activities on the part of family members (Di, 2007). Due to their

lower job mobility, home owners will retain their job for a longer period, making it possible for companies to increase their investment in the home owners' professional development, and for the home owners to receive higher salaries. (Munch, Rosholm, & Svarer, 2008).

A high home ownership rate is also influenced by the moment of acquisition of the first home, which varies in European countries. It has been demonstrated that during the second half of the 20th century, in Western and Central European countries, young people had access to credit and consequently were able to become home owners (Angelini, Laferrère, & Weber, 2013). The variance in the second part of the 20th century may also have been influenced by the big number of conflicts in the first half of the century, which lead to migrations of the people in Europe and to instability as far as home ownership is concerned. Several research studies have analysed mobility levels, in particular of people over 50 years of age, the results indicating a higher level of mobility of northern peoples compared to that of Mediterranean countries. What is more important, they highlighted that the change of status from tenant to owner is based on social events with a negative impact on the owner's financial capacity (Angelini, Brugiavini, & Weber, 2013)

The general views and opinions related to the relation between unemployment rate and home ownership was the result on the analysis on different country. Depending on the data taken into consideration and particular factors like availability of financing or housing affordability, there could be significant differences at a country level and even on a city level. The next step in developing our research paper was to formulate the research questions and hypothesis.

First, starting from the literature review presented above, our hypothesis included the fact that within the European Union there are premises for a relationship between home ownership and the unemployment rate, based on different characteristics of the real estate market like: attractiveness of owning a home, mobility and differences between renting versus financing through credit.

Second, analysing the case of Romania, our hypothesis is that, considering the social and historical aspects regarding property rights, there is no relationship between home ownership and the unemployment rate. This hypothesis is based on the high value of home ownership for Romania, compared with fluctuations in unemployment rate, and needs to be tested in the next sections of the paper.

2. Home ownership – social and historical aspects

The home ownership analysis starts from the historical aspects related to property rights. In what follows, we intend to analyse the way in which the property rights were modified depending on the political and historical circumstances. Our analysis is trying to establish, which was the determining factor that accounted for the need of holding property in Romania. Many historic landmarks are presented related to the development of housing and, implicitly, of the sense of ownership.

Prehistoric settlements, especially those created by the Neanderthal hunters, were structures for living purposes or seasonal settlements consisting in simple shelters or huts. Anthropological discoveries have confirmed the existence of inhabited caves towards the end of the last glacial era, situated in the parts of Romanian counties like Braşov, Constanţa, Mehedinţi, Sălaj. Starting from the Neolithic, the life

style changes due to the appearance of the old European villages and towns, with horticulture as one of the main occupations ("Istorie Edu," 2015). The development of techniques for polishing and processing stone tools triggered a change in the living style of pre-historic communities towards stable settlements, where the most important activities were related to the production of food. Being part of stable communities led to a better development of the sense of ownership, which covers not only the house, but also the farmed land.

Getae-Dacian settlements, both the ones dug in the ground and the ones above the ground, made of wood, stone or even covered with a Greek type of roof tiles, were often complex constructions with polygonal rooms ("Istorie Edu," 2015). Towns start to change as military conflicts lead to the need of fortifications around both civilian and religious buildings. The sense of belonging to the community is stronger than that of private ownership, given the possible conflicts which could lead to the destruction of the fortifications. The Middle Ages display evidence of an increase in social stratification and implicitly of a considerable impact on private property. Village communities included members who were free persons, hereditary land owners, while the land was not distributed periodically and only a part of it was worked jointly. In the Romanian feudal society, land ownership was very diverse, being split between the ruling prince, the clergy, the noblemen (big land owners) and the communities of free peasants. The end of the 19th century and the beginning of the 20th century brings along a differentiation among social classes and various privileges regarding property ownership. Thus, two thirds of the arable land belonged to the ruling prince, the noblemen and the clergy and about one third to the free peasants ("Istorie Edu," 2015). In 1864, the agrarian reform led to granting land ownership rights to the peasants, so that two thirds of the land given to the peasants to work on became their own, without compensation (Zamfir, 2013).

The development of the real estate sector in the communist period led to an increased need for private home ownership, being also supported by legal measures which resulted in the transfer of real estate property from the state to individuals. The situation in 1974 indicated legal measures according to which tenants could choose between buying their rented home by taking out credit or paying an increased rent by 25-100% ("Romania pushes private home ownership," 1974). Law no. 4/1973 on the development of home construction, selling the state owned houses to the population and building privately owned holiday houses encouraged the population to own private homes by means of financial incentives. The law stipulated that „due to the high rate of development of the national economy, the modernisation of cities and workers' centres, the increase in the number of workers and specialists, the steady rise in the salary and other sources of income of the working class, there is a need for intensifying the construction of homes and increasing their level of comfort" (*Law no.4, 1973*).

The legal measures adopted after 1990 aimed at facilitating the development of new constructions, as well as at introducing fiscal measures waiving the tax paying obligation (*Law no.114 - Housing Law, 1996*). These measures resulted in an increase of private home ownership.

At the end of 2013, home ownership in Romania stood at 95.6% ("Statista," 2015), representing the highest value in the European Union, where the average for the 27 Member States was 69.9%, the lowest values being in Austria (57.3%) and Germany (52.7%).

3. Research methodology and data sources

The research analysed statistic data from Eurostat and the National Statistics Institute (NSI) for the 2007-2013 period. The data refers to the unemployment rate and to home ownership in the European Union and its Member States. For Romania, the data used refers to the household structure by occupancy, size, employment status of the head of the household, as well as by type of residential environment.

3.1. Analysis of the relationship between house ownership and unemployment rate within the European Union

The analysis of the current situation within the European Union started from statistic descriptors related to the evolution of the unemployment rate, as well as of the level of home ownership, the values being presented in Tables 1 and 2 below. The level of unemployment presented between 2007 and 2013, as minimum and maximum values can show interesting comparison analysis between countries. In this sens, in 2007, the value for EU 27 as 7.2%, with a mean of 6.5%, will Denmark had the lowest value (3.8%) and Slovakia the maximum one (11.2%). After 2007, all the indicators increased (both the minimum value, maximum, mean, median or the value for EU 27). In this sense, in 2013, the minimum value of the unemployment rate was for Austria (4.9%), will Greece had a record maximum value of 27.5%, as a sign of deeper recession after the financial crisis. The mean, median and value for EU 27 was around 10-11%.

Table 1. Statistic descriptors regarding the unemployment rate in EU

	Minimum	Country	Maximum	Country	Mean	Median	EU 27
2007	3.8	Denmark	11.2	Slovakia	6.5	6.3	7.2
2008	3.4	Denmark	11.3	Spain	6.4	6.3	7.0
2009	4.4	Netherlands	17.9	Spain	8.9	8.0	8.9
2010	4.4	Austria	19.9	Spain	10.1	8.5	9.6
2011	4.2	Austria	21.4	Spain	10.1	8.3	9.6
2012	4.3	Austria	24.8	Spain	10.8	9.9	10.4
2013	4.9	Austria	27.5	Greece	11.1	10.2	10.8

Source: Author's calculations based on the Eurostat data, (<http://ec.europa.eu/eurostat>, Unemployment rate by sex and age groups - annual average, %, code une_rt_a, 2015)

Another country that has 5 of the 7 years as maximum value was Spain, with unemployment rate increasing from 11.3% in 2008 to 24.8% in 2012. If we consider this social changes correlated with migration of citizens across Europe, we can also include, effects on the residential market. If the job market is

fluctuating or is seasonal, there is a higher probability that the residential market is more a rent market, than actual transactions.

A similar analysis was developed, with results presented in Table 2. In this table, home ownership rate was assessed as minimum, maximum (with mentioning the country), mean, median and EU 27. In this case, the minimum value of home ownership rate decreases from 59.2% in 2007 (Austria), to 52.6% in 2013 (Germany). While the mean and median remained constant with small fluctuations, the EU 27 value decrease from 72.8% to 69.9%. The maximum values for the entire period were of Romania (95.6%-96.6%). What does this value tell us? Firstly, that the Western countries are more likely to rent apartments than owning them. Second, that in Romania, which has the highest value in European Union, there is a culture for home ownership. Some of the historical reasons were mentioned in the previous section, but we could also add that the value of rents is in the same range as the value for mortgage.

Table 2. Statistic descriptors regarding home ownership in EU

	Minimum	Country	Maximum	Country	Mean	Median	EU 27
2007	59.2	Austria	96.1	Romania	76.7	74.5	72.8
2008	57.9	Austria	96.5	Romania	76.9	75.2	73.2
2009	57.6	Austria	96.5	Romania	76.8	74.4	73.1
2010	53.2	Germany	97.5	Romania	76.6	76.1	70.5
2011	52.4	Austria	96.6	Romania	76.2	75.5	70.3
2012	53.3	Germany	96.6	Romania	76.3	75.2	70.4
2013	52.6	Germany	95.6	Romania	76.2	75.8	69.9

Source: Author's calculations based on the Eurostat data
 (<http://ec.europa.eu/eurostat>, Distribution of population by tenure status, type of household and income group, Code: ilc_lvho02)

Through the previous two tables, we can see the big picture related to the evolution of the unemployment rate and home ownership for EU 27. First, unemployment rate increased and second, the home ownership decreased. This could mean that difficulties on the job market create higher impact on how the actual family budget is spent. One of possible decision, when faced with unemployment, will be to sell the property and rent. Moreover, those who didn't have a property in the first place, took directly the decision to rent a property. Moreover, tax on property, which is higher in Western countries, is another reason for not owning a house. When studying home ownership in relation with unemployment rate, the trend and characteristics of the countries could mean different evolutions. For the analysis we choose to use the correlation coefficient and to see which countries have negative correlation, positive correlations or no correlation.

The analysis of the correlation among the 28 EU Member States is presented in Table no. 3, by pointing out also median, maximum or minimum values, together with quartiles.

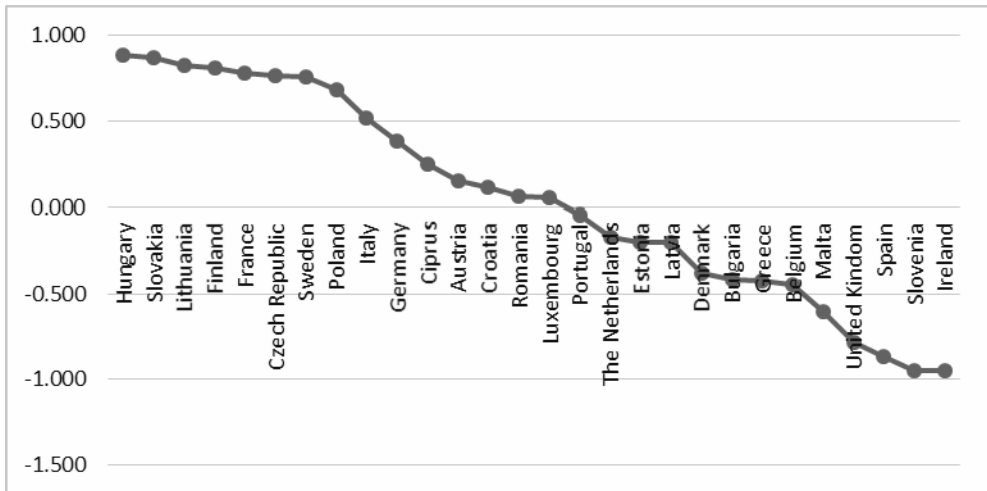
Table 3. Correlations among the 28 EU Member States

Country	Correlation coefficient	Country	Correlation coefficient
EU27	-0.878	Portugal	-0.046
Hungary	0.886	Netherlands	-0.169
Slovakia	0.869	Estonia	-0.197
Lithuania	0.829	Latvia	-0.198
Finland	0.81	Denmark	-0.381
France	0.786	Bulgaria	-0.414
Czech Republic	0.769	Greece	-0.427
Sweden	0.761	Belgium	-0.444
Poland	0.681	Malta	-0.601
Italy	0.523	UK	-0.786
Germany	0.385	Spain	-0.864
Cyprus	0.254	Slovenia	-0.948
Austria	0.151	Ireland	-0.949
Croatia	0.118	<i>Statistic descriptors</i>	
Romania	0.061	Median	0.0585
Luxembourg	0.057	Q1	-0.416
		Min	-0.949
		Max	0.885
		Q3	0.701

Source: Author's own calculations

The median of the series of data regarding the correlation between the unemployment rate and home ownership is 0.0585, while the value of quartile 1 indicates that 25% of the countries in the sample have a negative correlation between the two rates, i.e. the high values of home ownership correspond to low levels of the unemployment rate. The highest level of negative correlation is for Slovenia and Ireland. For 50% of the sample there is a low correlation, or a lack of correlation between the two rates. Finally, a positive linear correlation was found in 8 of the analysed countries, the maximum values being those of Hungary and Slovakia. In this way, the hypothesis no. 1 of this research is confirmed, regarding the existence of premises related to the relationship between the two variables analysed. Thus, the results indicated various values for the 28 Member States, most of them presenting a negative correlation or a lack of relationship.

Figure 1. Correlation between home ownership and employment rate across EU



Source: Author's own calculations based on the Eurostat data

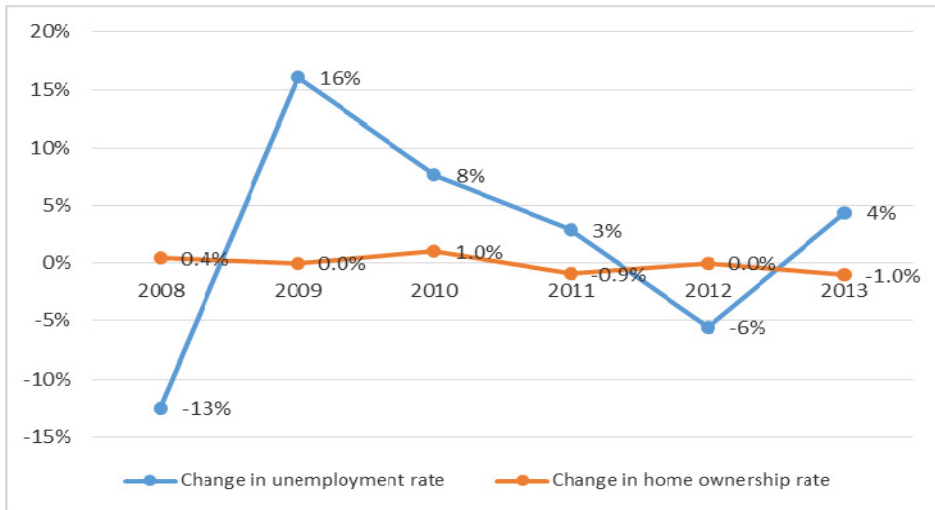
The results from Table 2, are graphically represented in Figure 1. The values are not general for a specific area of Europe. Mainly, we cannot conclude that there are negative correlations or positive for Eastern Europe or Western Europe. Actually, the countries with highest positive correlations are Hungary, Slovakia or Finland and France or Sweden, from different parts of Europe. A negative correlation will mean that an increase in unemployment will be reflected in a similar decrease of home ownership. A reverse relation will mean that when unemployment increases, home ownership has also higher values, which could raise new questions on the validity of the relation itself.

3.2. Analysis of the correlation home ownership – unemployment rate in Romania

The analysis of the correlation in the European Union shows a value of 0.061 for Romania, which indicates a lack of direct relationship between the two variables. Moreover, a comparison between the trends of the two variables (Figure 2) demonstrates different trends and the lack of a direct relationship. When confronted with data related to home ownership in other countries, the theory of a direct relation between home ownership and unemployment seems to be not so feasible. The theory presented by (Oswald, 1996) in which a 10% increase in home ownership leads to 2% rise in the unemployment rate, cannot be applied to Romania, and as seen in the previous section, not even for the rest of the countries. Assessing this relationship becomes even more evident when the analysis is made on different employment categories.

When analyzed the changes in unemployment rate, we can see high values in the period after the financial crisis, while the changes in home ownership were below 1%.

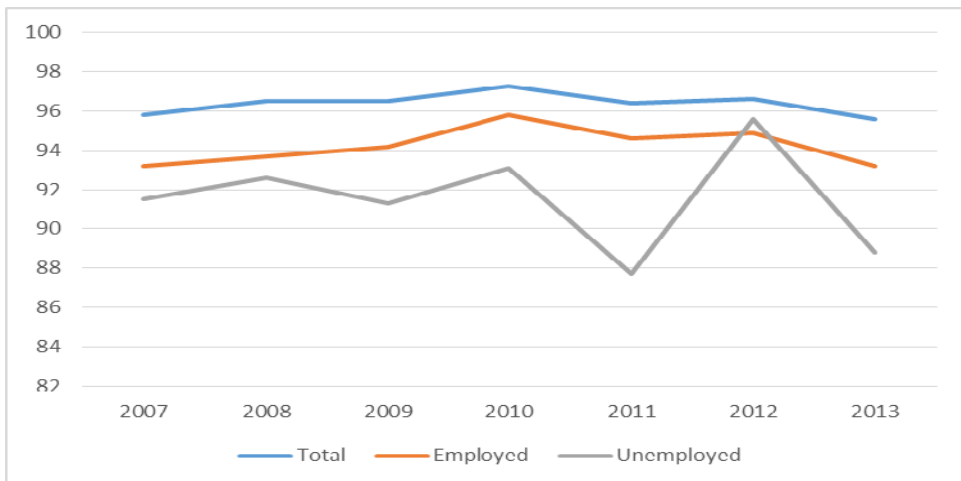
Figure 2. Comparison between the unemployment rate and home ownership variance trends



Source: Author's own calculations

The analysis by employment status shows high values of home ownership, with significant variances for the unemployed during the analysed period. In spite of this, the minimum value was seen in 2011 – 87.9%, being much over the European Union average. So, even this social category (the unemployed) has high home ownership value, even though this value decreased in 2011.

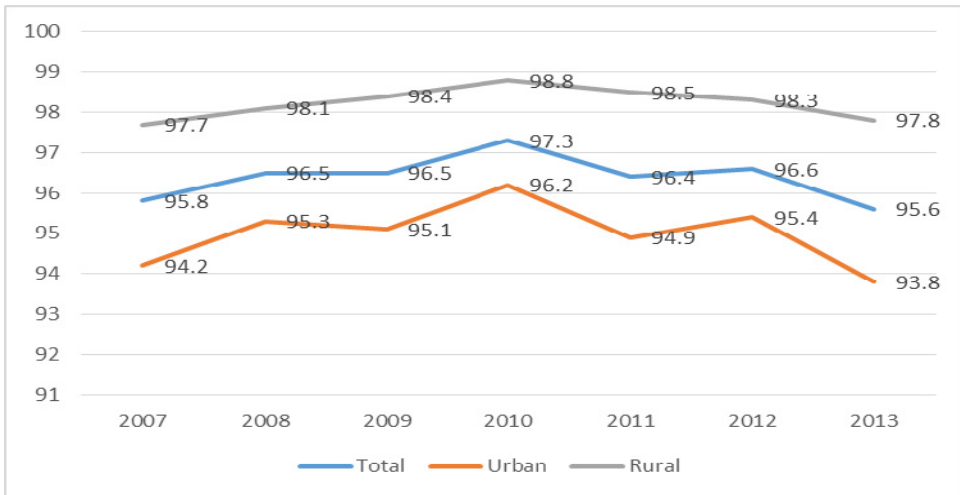
Figure 3. Home ownership by employment status



Source: Author's calculations using National Institute of Statistics data (<http://www.insse.ro/> Structure of dwellings based on employment status, 2015)

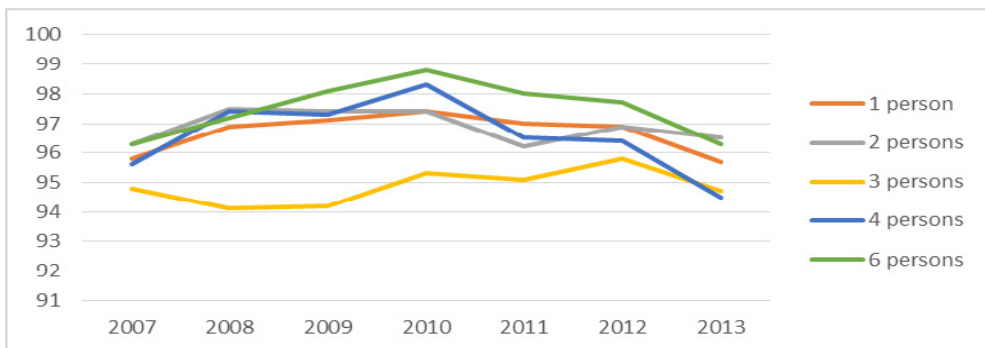
As for home ownership by type of residential environment, urban versus rural, a significantly higher value was seen for the rural area, the values being above the average for Romania. Thus, in 2013, the figure was 97.8% in the rural area, compared to 93.8% in the urban area, as can be seen in Figure 3. As far as home ownership by occupancy of a household is concerned (Figure 4), the lowest value is in the case of 3-member households, while the highest value is that of 5-member households.

Figure 4. Home ownership by residential environment



Source: Author's calculations using National Institute of Statistics data (<http://www.insse.ro/> Structure of dwellings based on type of areas, 2015)

Figure 5. Home ownership by household size



Source: Author's calculations using National Institute of Statistics data (<http://www.insse.ro/> Structure of dwellings based on household size, 2015)

High levels of home ownership are also seen among other social categories, depending on their employment status. Most of the times, changing one's work place leads to higher mobility, also including adequate transportation. More than this, a high level of home ownership cannot lead to a decrease in the number of businesses in a region. On the contrary, it may have as an effect urban growth in a developing region, as well the setting up of new business centres. As pointed out in the results, for Romania, there are many facts that the level of home ownership is high not only at the city level, but also at the rural level. In the later case, even if the value of home ownership is close to 100%, the level of unemployment is high, and the social distribution by age is towards elderly people. Moreover, the household size has similar values when it comes to home ownership and also the occupational status. This leads to the opinion that home ownership has more to deal with the status quo that Romanians aspire, without actual linkage with the unemployment rate, contrary to the similar studies. The arguments are in favor of the first and second hypothesis, as the second emphasize that for Romania we can not establish a relation between the employment rate and home ownership. This is an interesting fact to analyze in this region, mainly because we could assume that higher employment rate, and thus lower income will impact the actual willingness to acquire a residential property. Moreover, we could consider that increase or recovery of the economy will be translated in lower employment rate and thus in even higher home ownership. But, for the case of Romania we cannot find this type of relation for the analyzed period. The past period, which was marked by lower housing prices could trigger a new housing bubble mainly because of higher willingness for owning a home.

4. Conclusions

Home ownership varies within the European Union, due to several social and historical factors such as impact of the First and Second World War which had an impact on the mobility across Europe. Moreover, the Eastern Europe which was affected by decades of communism, which made urbanisation for the working class a main priority, developed the need for property and owning a dwelling. For Western countries the availability of dwelling correlated with accessibility of financing made renting a good option. This article has presented a few landmarks on the evolution of some factors that impacted the increased home ownership and related to the development of housing in Romania. This lead to Romania's position in the top of European countries regarding home ownership. The hypotheses presented at the beginning of the article referred to the relationship between home ownership and the unemployment rate in the European Union, the results indicating various values for the 28 Member States, most of them presenting a negative correlation or a lack of relationship. As far as the analysis of the situation in Romania is concerned, the lack of relationship cumulated with high home ownership by employment categories verifies the second hypothesis related to inexistence of a relationship between the two variables in contrast to the recent studies in specialised literature. So, how could the analysis of the home ownership and employment rate relation could be better understood? One point was to establish the factors that are behind the higher home ownership. Another point was to analyse the correlation. We could also point out differences in terms of market

timing related to the impact on this relation. Home ownership is an indicator established over decades and thus has multiple factors that have impact (from cultural ones, political and historical to actual financing policy and availability of properties). A more in-depth focus on area could trigger some important results. For instance, looking at a neighborhood level we could spot the actual number of rented apartments in a period in which unemployment rate is high. Moreover, if unemployment rate is low, we could see increased transactions in this area. Of course, the lack of data is the main concern behind this experiment, but further work should be conducted in this narrow field. The limitations of the research are given by the amount of data, which means that further research should verify these hypotheses by county, sector and by development regions. Practical implications come from the actual evidence from Romania that disagree the existing literature. The existing theory supports a relation, but our main conclusion is that this should be analyzed at a lower level, and a possible relation having multiple complex factors like mobility of citizen from or outside EU, urban developments and creation of new business districts or even change in the social structure of a neighborhood. Results are relevant not only to appraisers and real estate professionals but also for policy makers on the availability of financing taking into consideration the high willingness for owning a home.

Acknowledgement

This work was financially supported through the project "Routes of academic excellence in doctoral and post-doctoral research - READ" co-financed through the European Social Fund, by the Sectoral Operational Programme Human Resources Development 2007-2013, contract no. POSDRU/159/1.5/S/137926.

References

- Angelini, V., Brugiavini, A., & Weber, G. (2013). The dynamics of homeownership among the 50+ in Europe. *Journal of Population Economics*, 27(3), 797–823. doi:10.1007/s00148-013-0477-5
- Angelini, V., Laferrère, A., & Weber, G. (2013). Home-ownership in Europe: How did it happen? *Advances in Life Course Research*, 18(1), 83–90. doi:10.1016/j.alcr.2012.10.006
- Blanchflower, D. G., & Oswald, A. J. (2013). *Does High Home-Ownership Impair the Labor Market?* (No. 19079).
- Di, Z.X. (2007). Do Homeowners Have Higher Future Household Income? *Housing Studies*, 22(4), 459–472. doi:10.1080/02673030701387606
- Dietz, R.D., & Haurin, D.R. (2003). The social and private micro-level consequences of homeownership. *Journal of Urban Economics*, 54(3), 401–450. doi:10.1016/S0094-1190(03)00080-9
- Dohmen, T. J. (2005). Housing, mobility and unemployment. *Regional Science and Urban Economics*, 35(3), 305–325. doi:10.1016/j.regsciurbeco.2004.04.001
- Galster, G. C., Quercia, R. G., & Cortes, A. (2000). Identifying Neighborhood Thresholds : An Empirical Exploration. *Housing Policy Debate*, 11(3).

- Haurin, D. R., & Rosenthal, S. S. (2005). *The Growth Earnings of Low-Income Households and the Sensitivity of Their Homeownership Choices to Economic and Socio-Demographic Shocks Sensitivity of Their Homeownership Choices to Economic and Socio-Demographic Shocks*.
- Iamandi, I.-E., & Munteanu, S. M. (2014). Corporate Social Responsibility through Education and Sport . An EU Comparative Case. *The Romanian Economic Journal*, XVII(54), 73–97.
- Istorie Edu. (2015). Retrieved from <http://istorie-edu.ro/>
- Laamanen, J. (2013). *Home ownership and the labour market: Evidence from rental housing market deregulation*. Retrieved from <http://tampub.uta.fi/handle/10024/68116>
- Lau, C., & Leung, L. a. (2014). Mortgage debt as a moderator in the association between unemployment and health. *Public Health*, 128(3), 239–45. doi:10.1016/j.puhe.2013.12.012
- Legea nr.114- Legea locuinței (1996).
- Legea nr.4 (1973). BULETINUL OFICIAL NR. 46 din 31 martie 1973.
- Moriizumi, Y., & Naoi, M. (2011). Unemployment risk and the timing of homeownership in Japan. *Regional Science and Urban Economics*, 41(3), 227–235. doi:10.1016/j.regsciurbeco.2010.12.001
- Munch, J. R., Rosholm, M., & Svarer, M. (2008). Home ownership, job duration, and wages. *Journal of Urban Economics*, 63(1), 130–145. doi:10.1016/j.jue.2007.01.003
- Oswald, A. J. (1996). *A Conjecture on the Explanation for High Unemployment in the Industrialized Nations: Part 1* (No. 475).
- Romania pushes private home ownership. (1974). *Reading Eagle*, p. 49.
- Statista. (2015). Retrieved from <http://www.statista.com/statistics/246355/home-ownership-rate-in-europe/>
- Zaman, G., & Vasile, V. (2014). Conceptual framework of economic resilience and vulnerability at national and regional levels. *Romanian Journal of Economics*, 39(2 (48)), 5–18.
- Zamfir, R. S. (2013). Profil istoric privind dreptul de proprietate privată. *Analele Universității de Vest Din Timișoara, Seria Drept*, (1). Retrieved from <http://www.drept.uvt.ro/documents/Analele-1-2013-Profil-istoric-privind-dreptul-de-proprietate-privata.pdf>