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Housing Affordability in the Context of Covid-19 Pandemic – New Challenges for Romania

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Abstract: The world has changed rapidly in recent months as a result of the impact of the COVID-19 pandemic on all areas of socio-economic life. The crisis directed, in a first phase, the efforts of the whole society in the direction of ensuring the public health, and later also towards the economic recovery by resuming the human activities. In this context, housing has been a point of stability and a starting point for all efforts, and access to adequate housing has proven its importance for ensuring the health and well-being of the population. The purpose of the research is to highlight a series of housing affordability problems pre-existent and new problems arising from the influence of the COVID-19 pandemic on the housing sector in Romania. The present research highlights pre-existing problems in the general picture of housing at the national level, how these issues condition access to adequate and affordable housing, the emergence of new risk groups in the population in terms of access to housing, highlights the impact of the pandemic on the ability of households to bear housing costs and proves that housing insecurity is exacerbated by the effects of the crisis. The analyzes used data provided by the National Institute of Statistics, Eurostat, the Quality of Life Research Institute as well as reports prepared by specialized European organizations.

Keywords: *housing affordability, COVID-19 pandemic, vulnerable groups, adequate housing, challenges.*

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1. Introduction

Housing is one of the basic needs of the population and access to housing is an important factor in maintaining and improving the quality of life, as well as an essential component of society [3]. Every citizen of each EU Member State deserves the right to a decent standard of living, including access to comfortable housing. Affordable housing is recognized by the United Nations as a fundamental human right.

The COVID-19 pandemic has resulted in over 25.251.334 million confirmed cases and 846.841 deaths globally [7]. It has also sparked fears of an impending economic crisis and recession, also is considered a global emergency that puts increasing pressure on household budgets around the world. Thousands of workers were laid off in Romania (and around the world) or technically unemployed and paid less, which harmed their ability to bear household costs (rent, mortgages, services, and other expenses) [9]. The COVID-19 pandemic generated a strong financial and economic crisis, which put pressure on the budgets of households in European countries in general, and those with economies in transition in particular, the issue of housing accessibility causing growing concern at the European level [10].

Compared to the existing situation at the European level, several problems can be highlighted in Romania, which contributes to reducing the population's access to housing. Although at present, in Romania, the housing stock is not burdened by major problems in terms of the number of dwellings, living space, and rooms [4], however, the housing affordability (understood both in terms of a household's ability to bear the costs of buying/renting a home, and maintenance) is currently, under the sign of some contradictions: very high prices for selling/renting houses (new and old) compared to the income of the population; reduced comfort/new housing preferences; high housing maintenance costs/low household budgets; a large number of vacant dwellings/high share of overcrowded dwellings; luxury houses/houses without basic utilities, etc.

In this context, the effects of this crisis have contributed to the worsening of pre-existing contradictions. The multiple social and economic effects of the crisis have weakened households' ability to support housing costs. As a result, in addition to the existing risk groups on the housing market, new vulnerable groups have been formed in terms of access to housing.

2. Problem Statement

Affordable housing is a term subject to different interpretations and has a scope that varies from person to person, and country to country [1].

The concept can be understood as a problem of too low income or too high house prices, the income left after paying the costs of the mortgage or rent is too small to meet other needs of the family or, in other words, the household will not afford the costs of housing after meeting other expenses. [12], the ability of households to obtain and pay for adequate housing without incurring an unjustified burden on the budget [11]. Affordable housing must ensure that low-income households can afford adequate housing on the market without assistance [6]. Consequently, the definition must relate the price of housing to household income. The income remaining after the payment of the maintenance expenses of the house must allow the household a safe and healthy life and be sufficient for the individuals to play their role in society [1]. According to Eurostat's definition, the housing costs include mortgage or housing loan interest payments for owners and rent payments for tenants and utilities (water, electricity, gas, and heating) and any costs related to regular maintenance and structural insurance [2]. Since housing is most household's largest expenditure, affordability was originally defined as households being able to spend no more than 30% of their budgets on shelter (total housing expenses) [5]. Globally, in recent decades, housing affordability has become a frequently addressed topic, and the attention paid to pandemic impact research has been reflected in numerous studies. As little time has passed since the outbreak of the pandemic and the end cannot be predicted, research on its impact on access to housing is still in its infancy. The gap in the literature refers to the small number of existing studies that highlight the impact of the pandemic on housing affordability, the main limit being the lack of statistical data, or too short strings of data to provide relevant information. Even in this situation, the issue of the impact of the COVID-19 pandemic on housing must be studied in the light of the particularities facing access to housing in different states, so that each case study on this topic can make a significant contribution to understanding the new problems national, continental or global level to adopt the most appropriate solutions to the specific conditions of different states. The research undertaken contributes to a better understanding of the need for affordable housing in Romania and provides substantial evidence of the increase in this need against the background of the COVID-19 pandemic. The novelty is a detailed analysis of how certain effects of the economic pandemic in Romania are reflected in each of the three dimensions of the concept of housing affordability.

3. Research Questions/Aims of the research

The purpose of the research is to highlight a series of housing affordability problems pre-existent and new problems arising from the influence of the COVID-19 pandemic on the housing sector in Romania.

To achieve the purpose of the research, we have in mind some finalities materialized in several research questions: „What were the problems of the Romanian real estate sector before the pandemic?”; „What difficulties do households face in accessing adequate housing?”; „What were the most important changes imposed by the pandemic and how did they reflect on the ability of households to support housing costs?; "What are currently the most vulnerable groups in Romania in terms of housing affordability?"; "What are the challenges to improve housing affordability in the current context?".

4. Research Methods

During the documentation stage, numerous specialized articles were consulted to familiarize ourselves with the significance of the concept of housing affordability, its associated terminology, and the aspects that illustrate the impact of the pandemic on the housing sector, to choose an approach that best serves good for research. The study was structured in two parts: a part that analyzes the conditions in which housing takes place in Romania before the COVID pandemic broke out and a part that aims to highlight the impact of the crisis caused by the pandemic on housing affordability, respectively on the capacity of the population to support housing costs. To draw the general image of housing conditions in Romania before the outbreak of the pandemic, statistical data provided by INS (Tempo-online database, for the years 2018 and 2019) were processed regarding the characteristics of dwellings, housing deprivation, and indicators related to the burden of housing costs. The data were processed with the Microsoft Excel program, the representations were the starting point of the analysis, interpretations to evaluate the existing situation, and the associated issues.

The second part focused on an analytical-deductive approach that used data provided by Eurostat (mostly related to the first quarter of 2020) and a series of reports prepared at the national level on the effects of the COVID-19 pandemic on the socio-economic level. The steps of analysis and computerized data processing were completed with cartographic representations made using the Arc GIS program.

5. Findings

5.1. Housing condition and housing affordability in Romania before the COVID-19 pandemic

• Housing stock and main indicators of pre-pandemic housing

According to the data provided by the National Institute of Statistics and Eurostat, in 2019, in Romania, 19.4 million people lived (7,494 thousand households) in 9,031 thousand dwellings, with an average of 2.2 persons/dwelling, at an average size of the household of 2.5 persons.

The distribution of housing by the two areas of residence is quite balanced, the share of housing in urban areas slightly exceeding that in rural areas (54.5%) as a result of the higher share of inhabitants in cities (53.8%). If we consider the incomes of the population, according to the data provided by Eurostat, we emphasize that those who live in urban areas have a better economic situation than those who live in rural areas, 49% obtain incomes of over 60% of median equivalent income only 27.2% of those living in rural areas and only 7.1% of those living in cities have incomes below 60% equivalent income, while in rural areas this share rises to 16.7%.

Figure 1. Distribution of the population in Romania

by the degree of urbanization, dwelling type, and income groups

Source: Data processed by the authors from the Eurostat database, 2019 [ilc_lvho01] [2])

The analysis of the dynamics of the housing fund takes into account quantitative aspects such as the evolution of the number of dwellings; change, over time, their distribution by residence areas; the size of the dwellings (habitable surface, number of rooms); qualitative aspects of which we mention: the typology of the buildings in which the dwellings are located, the form of ownership over the dwelling; providing housing with utilities.

Table 1. Romania - indicators of housing stock and housing for 2019

Indicators	Total	Urban
Rezident population (number -thousand)	19.414	10.455
Habitable surface area (thousand square meters developed area)	434.017	238.534
Dwellings (number - thousand)	9.092	4965
Habitable surface area/dwelling	47,73	48,04
Habitable surface area /person	22,35	22,81
Total number of rooms (number - thousand)	24.858.411	12.590.469
The average number of rooms/dwelling	2,73	2,53
The average number of people/room	1,28	1,49

Source: data processed by the authors from
Romania National Institute of Statistics, 2019 [3]

Romania is distinguished at the level of the U.E. by the highest share of private property (99% in 2019). To have a more complete picture of the access of different groups to housing, the analysis from the perspective of the form of ownership over housing should be supplemented with information on the size of households and their income.

Figure 2. Distribution of the population by tenure status, type of household, and income groups, in Romania

Source: data processed by the authors from the Eurostat database, 2019
[ilc_lvho02] [2]

The statistical data indicate that 70% of the existing housing fund in Romania has the life span exceeded (or are close to exceeding this limit), in this situation is the majority of the collective housing in the urban area. Most of the dwellings exceeding 40-60 years being built in the socialist period (33%), only 17% is more recently built, having less than 30 years old. This situation indicates that a large part of the population lives in dwellings that

have exceeded their useful life and require investments to ensure adequate living conditions.

- **Access to adequate housing**

The notion of “adequate” housing better conveys what is needed: reasonably priced housing that meets the need and of quality construction, and that allows households to meet the other social needs in their lives [1].

The definition of housing affordability should take into account the weight of housing to household income [1]. Adequate housing does not require the only shelter in itself, but it must confer facilities such as adequate living space, adequate infrastructure, light and ventilation, privacy, safety, etc., all at a reasonable price [14]. Those who live in precarious conditions and who cannot have access to adequate housing are disadvantaged groups who cannot provide for their essential needs within the household (space, basic utilities, resources needed to repair their dwelling and cover housing costs). For the vast majority of families in financial difficulty, the possibility of being able to buy or rent a decent home is very low, the idea of affordable housing remaining for them only a desideratum.

In 2019, according to Eurostat data, almost a quarter of the inhabitants (23.8%) with incomes below 60% of the median equivalent income (after social transfer) were at risk of poverty. Within this group, the most affected are young people, one in three young people up to 24 years old is at risk of poverty. It can also be pointed out that 72.2% of young people aged 16-29 live with their parents (77% of those aged 20-24 and 51.1% of those aged 25-29) which is a consequence of poverty and exacerbates the burden on households with housing costs and the overcrowding rate.

Severe housing deprivation rate is defined as the percentage of the population living in the dwelling which is considered overcrowded, while also exhibiting at least one of the housing deprivation measures. An indicator of access to adequate housing is the overcrowding rate. In 2019, Romania registered, within the European Union, the highest values. The values of this indicator are differentiated according to income, the data presented in Table 2 indicate higher values for those with lower incomes and young people. The share of the population living in sub-occupied dwellings according to household and income quintiles is between 5.5 and 7.7%.

Table 2. Overcrowding rate in Romania by age, and poverty status - total population, in 2019

Overcrowding rate	Bellow 60% of median equivalised income (%)	Above 60% of median equivalised income
Total	54,4	43,1
Less 18 years	79,7	60,4
16-64 years	57,0	45,3
Over 65 years	15,5	19

Source: data processed by the authors from the Eurostat database, 2019 [ilc_lvh05a] [2]

Eurostat defines severe housing deprivation as the simultaneous occurrence of overcrowding together with at least one of the following housing deprivation measures: leaking roof, no bath/shower and no indoor toilet, or a dwelling considered too dark. The existing situation in Romania demonstrated by statistical data, shown in Figure 3, indicates low accessibility of the population to adequate and decent living conditions.

Figure 3. The share of households by type of housing problems, in total households housing problems in each category (2018)

Source data: data processed by the authors from the INSSE, Tempo: CAV101T, 2018 [8]

The high shares of the population living in inappropriate conditions (insufficient light, leaks through roof or walls etc) are correlated with the long age of the existing housing stock and the high poverty rates.

Another reality, in Romania, highlighted by the statistical data, is that there are major discrepancies between urban and rural areas in terms of access to utilities. Comparing the situation we find that the houses in the

rural area benefit to a lesser extent from access to utilities compared to those from the urban environment.

5.2. Housing affordability in Romania and the challenges imposed by the COVID-19 pandemic

- **Housing affordability situation**

Housing affordability is considered to be an important determinant of a country's development and socio-economic stability [13]. In line with the purpose of the research, the analysis will focus on issues related to the ability of households to bear housing maintenance costs and will be based on statistics related to the main indicators of housing affordability. Thus, we must emphasize that although revenues have increased in recent years (the median equivalent net income has increased from 3248 Euro/year to 3851 Euro/year) still in the European Union, in this indicator, we are in the last place. The connection of all prices to those of the European Union makes the final consumption expenditure of households and non-profit serving households to have among the highest shares of Gross Domestic Product registered in the European Union, of 63.5% (only some countries have values major: Greece, Cyprus, UK, and Portugal). Also, in the context of the COVID-19 pandemic outbreak, statistical data indicate an increase in average monthly/household expenditures for payment of services by 35.89 lei in the first quarter of 2020, compared to the same period last year. Figure 5 highlights the existing situation at the regional level in terms of the share of housing maintenance costs in total household income.

Figure 5. The share of average monthly housing expenses in total household income, 2020

Source: data processed by the authors from the INSSE, Tempo database: BUF109G [8]

At first observation, the average situation existing in Romania, at a regional level, in the first quarter of 2020, regarding the ratio of housing incomes/expenses, does not indicate a burden on households with housing expenses. We must keep in mind that the outbreak of the COVID-19 pandemic has brought new expenditures (food, medicine) in household budgets, housing maintenance costs taking a secondary level, and that there are groups in the population that have different possibilities to support housing expenses.

Figure 6. Housing costs overburden rate by age, income, tenure status, and residence environment

Source: data processed by the authors from Eurostat, 2019 [ilc_lvho07a] [2]

According to international standards, a household is in difficulty in terms of access to housing, when expenditures exceed the threshold of 30% of the total household budget.

Analyzing the Romanian situation, the degree of burden of households with housing costs by age, income, areas of residence, and type of household we see that the burden of housing costs is very strongly felt by households who rent housing at market price (39.8%), and approaches this threshold in the case of single-person households (24.5%) and people with low incomes (29.74%) and less on the other categories. These high weights indicate the existence, within the Romanian population, of vulnerable groups from the perspective of access to housing. The budgets of these households are strongly affected by housing costs, the pressure being reflected on their quality of life.

Quite relevant aspects of the differentiated capacity of different population groups in Romania to cope with the costs of housing are highlighted in Figure 7.

Figure 7. The share of households in Romania by type of expenses that not be paid on time, by the size of the household. **Source data:** INS, 2018

We notice that most types of households in Romania have difficulty in supporting household maintenance costs, in less disadvantaged situations being households with more than five members who receive subsidies. Also, all categories of employees bear, in general, with difficulty the costs of housing maintenance, which is an alarm signal for authorities at all levels, which must propose and implement appropriate measures to improve the accessibility of housing in Romania.

• Aspects that highlight the influence of the COVID-19 pandemic on housing affordability

The COVID-19 pandemic continues to pose a major threat of public health in the EU countries and Romania, and worldwide. Due to the increase in the number of cases, many countries implemented a series of response measures that led to a decrease in the incidence. For Romanians, the effects of the new crisis were initially felt through general anxiety about unforeseen, through the prospect of new risks and problems - loss of income population, the closure of large companies or small businesses, the problem of care has arisen children who would no longer go to kindergarten or school, had to be solved somehow the problem of many families isolating the vulnerable or even the already infected.[13] Measures taken to limit disease have generated many effects with a strong socio-economic impact which have been largely reflected in housing affordability, as highlighted in Table 3.

Table 3. Some aspects that reflect the consequences of the COVID-19 pandemic on housing affordability in Romania

Problems related to the COVID pandemic	The influence on the ability of the population to buy a home	The influence on the ability of the population to bear the costs of housing	The influence on the access to adequate housing
91256 confirmed cases, 3765 deaths in Romania sept. 3, 2020)	Declining buyer interest The number of dwelling sales decreased	Increase spending for food, medicine, health, protective equipment to the detriment of home maintenance costs	A decrease in the financial power of families in which deaths have occurred
Measures to limit the spread of SARS CoV-2 virus, quarantine	A drastic decrease in income due to the closure of some businesses, job losses	Diminishing incomes and savings	Increasing the overcrowding rate and water, electricity, gas consumption
Prices of consumer goods and services have risen (rising food prices/+ 1.46% March)	Diminishing incomes and savings and ability to buy a home	Increase spending for food, medicine, health, protective equipment to the detriment of home maintenance costs	Postponing investments to improve housing conditions
The services recorded tariff increases, especially water supply, gas, sewerage	Diminishing incomes and savings	Increasing the burden on households with housing costs	Postponing investments to improve housing conditions
Deterioration of the liquidity of most households and many categories of entrepreneurs	Market volatility has increased, borrowing costs they grew up	Delays in the payment of utilities, installments, loans	Worsening living conditions due to reduced other consumptions to reduce housing costs
Job loss, rising unemployment	Diminishing incomes and savings	Increasing the housing deprivation rate	Increased debt, loss of housing, limited access to utilities

Source: the authors' own conception

• Vulnerable groups in Romania in terms of housing affordability

Groups excluded from housing, or adequate housing, are also represented by people who cannot buy a home or rent one at affordable prices, by those who have difficulty paying housing costs as well as those that do not have access to decent housing, adequate to European standards of quality and comfort.

Table 4. The main vulnerable groups from the perspective of housing affordability in Romania, 2020

Criterion	Disadvantaged groups	The share in the total population (%)	Occurrence influenced by the COVID-19 Pandemic
Based on the composition of households	A child living with a single parent	11,9	Yes, partial
	The households with many children (three and over)	10,1	No
	Households where the head of the household is disabled	Missing data	Yes, partial
Based on the work-related activity	Pensioner families	24,5%	No
	Families, where the head of the household is unemployed		Yes, partial
	People living in a household with very low intensity of work	6% of the population aged less 60 years	Yes, partial
Determined by the income of households	Low-income households	32,5	Yes, partial
	Subjectively poor families	14,5	Yes, partial
	Households with loans	8	Yes, partial
	Young people who don't have a job (under 25 years)	0,6	No
	Young people who do not work and are not included in any form of training	15	Yes, partial
	People at risk of poverty or social exclusion	31,2	Yes, partial
	Homeless people	Missing data	No

Source data: Eurostat, 2020 [2]

6. Discussions

This study proposes a synthetic picture of the problems faced by the population to have access to adequate housing. The defining elements of housing are well highlighted by the examples taken into account, however, the influence of the COVID pandemic on housing, and especially on housing affordability, is more inferred, as there are currently not enough data to allow an applied analysis. The communist period left a strong mark on the characteristics of the existing housing stock in Romania and on the current living conditions. The transition to a market economy has made it difficult for some households to ensure decent housing, while other households have adapted better to market mechanisms and managed to obtain jobs and income that would allow them access to housing comfortably. However, in both cases, pre-existing housing conditions create a multifaceted background that puts pressure on all categories of households from the ability to bear living expenses and ensure access to other services and goods necessary for living in wellness. This explains the fact that Romania currently has some of the least affordable housing (as a purchase and rental price) in the European Union if we consider the economic power of the population/households. The effects of the socio-economic crisis triggered by the COVID-19 Pandemic overlapped with this problematic context, generating a housing crisis whose immediate effects were directly reflected in the capacity of Romanian households to support housing costs. Even if, in the first phase, households have overcome economic difficulties with the help of savings, loans, reducing other expenditures, the continuation of the crisis will certainly exacerbate these problems.

7. Conclusions

The analyzed period was characterized by profound changes in all levels of socio-economic life that were reflected in the field of housing as a defining element of human existence. The analysis of the aspects related to the characteristics of the dwelling highlighted the existence of some problems that can be related, to the cause-effect principle with access to decent and affordable housing. Against the background of the complex issue of access to housing in Romania, several problems/challenges are imposed, the solution of which depends on improving the access of the population in general, and vulnerable groups in particular, to decent housing: economic impact of the Covid-19 Pandemic on the income of the population was strong with an immediate influence on households and their ability to bear the costs of housing; access to adequate housing faces many pre-existing problems that have been exacerbated in the context of the pandemic;

housing characteristics and economic performance (greatly influenced by the COVID pandemic) determine the inclusion of a large number of people in risk groups in terms of access to adequate housing; the housing rental market is not regulated, which leads to an increase in the burden of households with financial expenses; one in two households is struggling to cope with home maintenance costs; the deprivation rate has the highest values in the European Union.

Consequently, policymakers need to quickly find and implement solutions that will lead to improved living conditions in Romania and increase access to sustainable housing.

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