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THE IMPACT OF THE HOUSING QUALITY ON THE SOCIO-ECONOMIC STANDARD OF THE EU COUNTRIES

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Abstract

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The paper deals with the qualitative characteristics of the housing in the EU countries. On the one hand there is a problem with housing itself and on the other hand there is a problem with the housing quality with its significant impact on the quality of life. The housing quality is defined by the attributes mentioned in the EQLS survey. The examined characters are the dwelling stock, the space problem, the rot problem, the damp problem, the toilet problem, the bath problem, the garden problem, the rent problem, the utility problem and the heating problem. The housing quality is affected by the public expenses on the housing and the community amenities per capita. The relations between the qualitative characteristics mutually and the qualitative characteristics and the public expenditures on the housing and the community amenities are examined by the correlation and regression analysis. The aim of the article is to point out to the dependence between the expenses and the housing quality in the EU countries. The mentioned relation strongly implicates the socio-economic standard of these countries.

Keywords: housing quality, qualitative characteristics, EU, correlation and regression analysis

INTRODUCTION

The focus for policy-makers should be primarily directed at vulnerable groups, the attention should also be concerned to the situation of people who at first sight seem advantaged but who are in fact struggling with problems related to the employment, the debt, the housing insecurity and the access to services.

While the quality of housing appears to have improved for many, the perceived security of tenure has declined, particularly among the people with a mortgage, and this was noticeable in all income groups. Measures are needed to increase the housing security, and prevent the hardship. The quality of life is closely linked to the housing and the housing is determined by other factors e.g. the employment, the income, the education, the work-life balance, the life satisfaction and the perceived quality of society (Spirkova *et al.*, 2015; Rašticová *et al.*, 2016; Rašticová, Pohanková 2016). The determining factor of the quality of life and the environment and the satisfaction of a man as well has been the housing quality. (Zoe'Lejeune *et al.*, 2016; Lisnik, 2013). The housing has been one of the main pillars of the individual satisfaction and has been considered "to be the determinant of the health and the quality of life" (Braubach, Fairburn 2010, p. 36; Rašticová, Kolářová 2015).

The accessibility and affordability of the housing have been the core assumptions of the increase of the quality of life. Therefore it is obligatory for each country to work out its housing policy for a certain period of time with the perspective on the following years.

Housing policies of the EU countries cover the rights on the decent housing apart from social, cultural and economic rights. Access to housing-be it public or private, rented or owner-occupied-remains

a major vector of social differentiation. (De Decker 2008; De Decker and Dewilde 2010; Vanneste *et al.* 2008).

Almost all housing policies in the EU countries involve the three objectives that are the most frequently mentioned:

- better accessibility to affordable housing,
- accessible housing for vulnerable groups,
- sustainability or more specifically in most cases, energy efficiency.

The most frequently cited obstacles preventing the provision of affordable housing across Europe are:

- high rent prices;
- insufficient social housing;
- problem of citizens who are not able to "get" flat,
- the unavailability of loans or the inability to pay loans back.

There were, of course, differences across Member States before the crisis in terms of availability and quality of the housing stock, and within country, large differences in standards of accommodation. Poor housing conditions are not only associated with lower levels of health and well-being, but are part of a vicious circle which increases the risk of poverty and social exclusion.

In the public discourses on housing at both national and international level, several strands of concern persist. Information about the large numbers of unoccupied dwellings in certain states is usually contrasted with the relatively lower numbers of the homeless; also discussed is an urgent need for housing for the new influx of refugees to Europe. Also, there are debates about the lack of affordable housing and an increased demand for public housing, as well as ways to meet the increase in rental costs. Alongside considerations about availability, accessibility and affordability of housing, it is important not to neglect quality of housing, to assess its adequacy and the implications of any potential inadequacies. The most common housing policy objective among the EU Member Countries is better accessibility to affordable housing.

The European Parliament, acknowledging increasing problems in housing affordability across Europe, has drawn particular attention to social housing. A note on social housing in the EU emphasises that the housing market was hit hard by the recent recession, prompting increasing concerns. The European Commission has also been voicing concern about spending cuts or freezes on social services, including housing and has considered housing as a part of the Investment Plan announced at the end of 2014 (EU Task Force on investment, 2014).

Utilizing the potential of the territory can attract skilled labour into urban areas. Ensuring of these needs would probably alleviate poverty and social exclusion which is still in many European countries a significant challenge.

As shown, the support issue is not only the financing of housing, but also access to the housing. The economic situation in individual households is largely affected by the deregulation of rents and housing-related services. Following this dominant trend of the economic efficiency of housing is necessary to create adequate living conditions for weaker social communities, for example, young families, families with several children, elderly or severely disabled persons (Lisnik 2013). However, this trend means another rent increases and also increase in charges for services related to housing,

Housing issues the housing policies are dealing with can be in general divided into problems connected with the quantity of the housing stock and the quality of the housing stock. There are usually two main housing sectors in the EU: the owner-occupied housing and the rental housing. The owner-occupied housing can be divided according to its financing into the owner-occupied housing financed by the mortgage or some other loan related to housing. The rental form of the housing can be with the market rent, reduced rent or the free housing.

On the one hand there is a problem with housing itself and on the other hand there is a problem with the housing quality. The housing quality is defined by the attributes mentioned in the EQLS survey. The examined characteristics are the dwelling stock, the space problem, the rot problem, the damp problem, the toilet problem, the bath problem, the garden problem, the rent problem, the utility problem and the heating.

MATERIALS AND METHODS

Cluster analysis is used as a data exploration tool for dividing a multivariate dataset of countries into natural clusters. The cluster method defines the rules for cluster formation. Ward's minimum variance method is used to finding compact, spherical clusters (Kaufman, Rousseeuw 2009).

The Pearson correlation coefficient is a measure of the linear correlation between two variables X and Y. It has a value between +1 and –1, where 1 is total positive linear correlation, 0 is no linear correlation, and –1 is total negative linear correlation. The larger the absolute value of the coefficient, the stronger the relationship between the variables.

In the next step is to determine whether the correlation between variables is significant. We compare the p-value to significance level alfa= 0.05. If the p-value is less than or equal to the significance level, then you can conclude that the correlation is different from 0.

Linear regression is a statistical method that allows us to summarize and study relationships between two continuous variables (utility and rent). Coefficient of determination is used as a measure that assesses how well a model explains and predicts future outcomes (Draper, Smith 2014).

The main characteristics of the housing quality

The housing quality is defined by characteristics such as the dwelling space, the rot, the damp, the toilet, the bath, the garden, the housing expenses, the utility, the heating, etc. The following can be stated according to the Fig. 1.

Space problem. The problems with the overcrowded housing, i. e. space problems are the most significant in Latvia (19.4%) and Poland (18.3%). It is interesting that France (17.4%) and Great Britain (17.3%) are almost sharing the third and the fourth position. The next is Belgium (16.4%) and Sweden (16.2%). Denmark, Sweden and the Netherland are above the average of the EU 28 which is on the level 12.01%. Minor problems with the overcrowded housing have Hungary, Slovakia, Bulgaria and Romania as well. The lowest value in the monitored characteristics has Malta (5.2%).

Rot problem. The biggest problems with this second qualitative characteristics connected with housing are in Latvia (23.4%), Estonia (19.1%) and Lithuania (15.3%). The countries affected on the lowest level are Austria (2%), Spain and Sweden almost the same 3%.

Damp problem. This characteristics can be noticed on the high level in Latvia again (29.1%). The same problem can be monitored in Estonia (22.4%). The share of households in Bulgaria having damp problem is 15.1%. The best results can be observed in Austria and Sweden.

Toilet problem. The biggest deficiencies in this monitored qualitative characteristics has Romania (22.2%) followed by Latvia and Lithuania with almost 16%. Denmark, Cyprus and the Netherlands showed out as near as the zero value.

Bath problem. This problem can be observed the most markedly in Romania and Latvia as well as with the toilet problem. Estonia is the third worst country with 15.9% in this characteristics. Cyprus, Denmark and the Netherlands stand on the side opposite having in fact no bath problem.

Garden problem. It deals with the existence of a balcony, a terrace or a small garden relating to a dwelling. The worst value of this characteristics has the Czech Republic followed by France and Estonia. The best position from the qualitative point of view have Cyprus and Bulgaria followed by Ireland.

Rent problem. The biggest problems with rent are in Poland, (18%), Italy (14.8%) and Cyprus (14.4%). Denmark (1.8%), Bulgaria (2.3%) and Malta (2.5%) are on the side opposite in this characteristics.

Utility problem. It can be markedly observed in Greece (23.8%), Poland (22.6%) and Italy (21.4%) as well. Northern countries such as Sweden and Denmark showed out this problem on the level of 3% followed by Finland (4.9%).

Heating problem. The biggest problems with the heating can be observed in Poland (24.4%) with almost one fourth of households facing this

Country (EU 28)	Dwelling stock	Space problem	Rot problem	Damp problem	Toilet problem	Bath problem	Garden problem	Rent problem	Utility problem	Heating problem
AU	4,441,000	9.50%	2.00%	3.70%	1.10%	1.00%	16.80%	5.20%	6.40%	1.80%
BE	5,203,400	16.40%	7.70%	13.10%	1.60%	1.80%	16.10%	8.10%	13.50%	7.00%
BG	3,918,200	10.00%	11.00%	15.10%	11.80%	5.00%	3.00%	2.30%	15.40%	17.90%
CY	433,212	10.70%	4.50%	14.20%	0.00%	0.00%	2.30%	14.40%	21.20%	19.90%
CZ	4,101,635	14.90%	4.70%	12.00%	0.50%	1.40%	24.60%	8.90%	12.20%	5.40%
DE	40,545,300	12.10%	4.20%	6.20%	1.30%	1.50%	17.20%	9.70%	12.20%	6.40%
DK	2,762,444	13.00%	5.10%	9.30%	0.00%	0.00%	7.00%	1.80%	3.30%	2.60%
EE	649,700	11.50%	19.10%	22.40%	14.00%	15.90%	20.50%	5.00%	7.60%	23.00%
EL	6,384,000	11.70%	14.80%	11.90%	0.50%	1.20%	5.60%	9.70%	23.80%	17.70%
ES	25,208,000	5.90%	3.00%	6.80%	0.60%	0.90%	13.10%	7.00%	8.40%	11.20%
FI	2,906,000	12.50%	5.40%	8.10%	0.90%	1.60%	8.70%	5.90%	4.90%	2.30%
FR	28,077,000	17.40%	9.60%	14.70%	0.90%	1.30%	21.80%	7.90%	9.30%	9.10%
HR	1,923,522	11.10%	10.80%	13.60%	1.50%	2.00%	7.20%	6.30%	20.60%	7.20%
HU	4,400,000	9.80%	14.20%	12.30%	4.20%	4.70%	11.20%	10.70%	21.20%	14.40%
IE	2,019,000	9.90%	3.70%	7.50%	0.60%	0.90%	4.60%	8.10%	10.80%	7.70%
IT	28,863,000	10.10%	9.60%	8.50%	0.70%	0.80%	9.20%	14.80%	21.40%	7.60%
LI	1,389,000	13.50%	15.30%	10.20%	15.90%	14.20%	9.80%	3.70%	8.10%	24.10%
LU	208,000	11.10%	5.10%	7.70%	2.70%	2.50%	15.50%	2.90%	5.80%	3.30%
LV	1,018,000	19.40%	23.40%	29.10%	16.20%	18.40%	18.90%	12.70%	19.30%	17.90%
MT	223,900	5.20%	10.60%	10.60%	2.10%	1.70%	6.00%	2.50%	6.30%	17.00%
NL	7,200,000	12.80%	8.00%	12.70%	0.20%	0.00%	6.80%	11.40%	10.30%	3.10%
PL	13,853,000	18.30%	11.50%	13.60%	5.50%	6.70%	15.30%	18.00%	22.60%	24.40%
PT	5,878,700	10.10%	4.80%	12.80%	1.70%	1.60%	11.30%	6.30%	7.10%	20.90%
RO	8,329,000	10.10%	9.40%	11.90%	22.20%	22.00%	11.70%	5.90%	18.10%	16.60%
SE	4,633,678	16.20%	3.10%	4.70%	3.10%	3.50%	11.00%	3.70%	3.00%	1.20%
SK	1,994,900	7.70%	5.40%	6.50%	3.30%	2.40%	9.80%	9.00%	11.40%	9.70%
SL	857,000	8.10%	7.60%	10.40%	0.50%	0.50%	5.40%	3.40%	11.10%	3.10%
UK	27,767,000	17.30%	8.30%	14.00%	1.20%	1.90%	10.00%	8.80%	10.10%	12.10%
EU28	235,187,591	12.50%	7.70%	10.40%	2.80%	3.00%	13.10%	9.50%	13.50%	10.90%
Median	4250818	11.30000	7.85000	11.90000	1.40000	1.65000	10.50000	7.45000	10.95000	9.40000
Standard Deviation	10948976	3.61267	5.13458	5.17383	5.98888	5.92342	5.82869	4.08552	6.32972	7.48545

1: *The share of households regarding the dwelling deficiencies according to the individual qualitative characteristics*
Source: Eurostat and own processing

problem. The next one with a slight difference is Lithuania (24.1%) and Estonia (23%). The smallest problems have again northern countries such as Sweden (1.2%) and Finland (2.3%). Austria has problems with the heating on the level of (1.8%).

RESULTS AND DISCUSSION

Based on the results of the research we can conclude that there is the significant mutual dependence of analysed housing characteristics and also the dependence between the public expenses on the housing and the community amenities in the EU countries and examined characteristics. Fig. 2 represents the point chart of the dependencies of the quality characteristics of the housing.

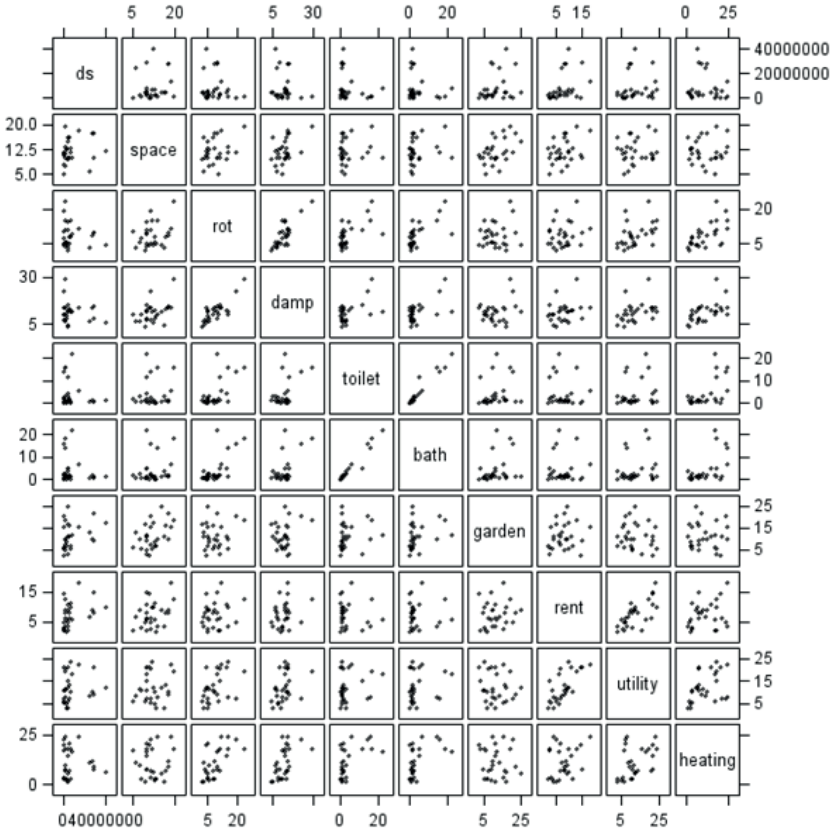
The graphical representation of the dependencies is insufficient for the proper scientific examination of dependencies among the individual housing quality characteristics. Therefore the exact correlation analysis is needed. As the course of the dependence is not explicitly similar to the quadratic, exponential or logarithmic dependence, we can assume in the simplified way the linear dependence. We use Pearson correlation coefficient for its quantification. Its value quantifies the intensity of the dependence. As it does not suffice us we need to review the credibility of the dependence intensity. Hence we test the significance of Pearson coefficient.

The considerable (on the significance level alfa = 0.05) Pearson Correlation Coefficients are highlighted by bold border in Fig. 3.

The value of the Pearson coefficient between the *space* and the *damp* is 0.4417. This value is statistically important on the significance level alfa-0.05 as the P-value of the significance test of the correlation coefficient is 0.0186. The other significant relation the *space* and the *garden*, where r=0.4615 (P-value=0.0134).

The importance of the other relations is clear based on the P-value from the Fig. 3. The significant relations among the individual housing characteristics are presented further. The weightiness of the relations between the *space* and the *damp* as well as the *space* and the *garden* can be given reasons for the state and the structure of the whole housing stock in the EU.

The importance of the characteristics rot with characteristics *damp, the toilet, the bath, the utility, the heating* shows out the logical dependence as the problems connected with the *toilet, the bath, the utility* are highly influenced by the type of the heating. We assume from the same reason that the characteristics *damp* is connected with problems such as *the toilet, the bath, the utility and the heating*. Statistically significant relation for the rent was confirmed only for the utility what is logical (see Fig. 4). But surprising is the fact that the weightiness



2: *The graphical representation of the housing quality characteristics*
Source: Eurostat and own processing

characteristics	ds	space	rot	damp	toilet	bath	garden	rent	utility	heating
ds	1.00000	0.16368 *0.4053*	-0.17432 *0.3750*	-0.17559 *0.3715*	-0.21755 *0.2661*	-0.19364 *0.3235*	0.27112 *0.1629*	0.34727 *0.0702*	0.09459 *0.6321*	-0.09252 *0.6396*
space	0.16368 *0.4053*	1.00000	0.29616 *0.1260*	0.44174 *0.0186*	0.14040 *0.4761*	0.22566 *0.2482*	0.46151 *0.0134*	0.34691 *0.0705*	0.10800 *0.5844*	0.03685 *0.8523*
rot	-0.17432 *0.3750*	0.29616 *0.1260*	1.00000	0.80502 *<.0001*	0.62207 *0.0004*	0.66354 *0.0001*	0.13497 *0.4935*	0.18127 *0.3559*	0.44181 *0.0186*	0.61321 *0.0005*
damp	-0.17559 *0.3715*	0.44174 *0.0186*	0.80502 *<.0001*	1.00000	0.49620 *0.0072*	0.55250 *0.0023*	0.23588 *0.2269*	0.25874 *0.1837*	0.37431 *0.0497*	0.54961 *0.0024*
toilet	-0.21755 *0.2661*	0.14040 *0.4761*	0.62207 *0.0004*	0.49620 *0.0072*	1.00000	0.96692 *<.0001*	0.16431 *0.4034*	-0.12079 *0.5403*	0.16500 *0.4014*	0.56433 *0.0018*
bath	-0.19364 *0.3235*	0.22566 *0.2482*	0.66354 *0.0001*	0.55250 *0.0023*	0.96692 *<.0001*	1.00000	0.28251 *0.1452*	-0.02107 *0.9152*	0.18081 *0.3572*	0.54708 *0.0026*
garden	0.27112 *0.1629*	0.46151 *0.0134*	0.13497 *0.4935*	0.23588 *0.2269*	0.16431 *0.4034*	0.28251 *0.1452*	1.00000	0.12689 *0.5199*	-0.13787 *0.4842*	-0.03716 *0.8511*
rent	0.34727 *0.0702*	0.34691 *0.0705*	0.18127 *0.3559*	0.25874 *0.1837*	-0.12079 *0.5403*	-0.02107 *0.9152*	0.12689 *0.5199*	1.00000	0.70133 *<.0001*	0.25355 *0.1929*
utility	0.09459 *0.6321*	0.10800 *0.5844*	0.44181 *0.0186*	0.37431 *0.0497*	0.16500 *0.4014*	0.18081 *0.3572*	-0.13787 *0.4842*	0.70133 *<.0001*	1.00000	0.41481 *0.0282*
heating	-0.09252 *0.6396*	0.03685 *0.8523*	0.61321 *0.0005*	0.54961 *0.0024*	0.56433 *0.0018*	0.54708 *0.0026*	-0.03716 *0.8511*	0.25355 *0.1929*	0.41481 *0.0282*	1.00000

3: *Pearson Correlation Coefficients of the qualitative housing characteristics*
Source: Own processing

with other characteristics was not approved. It can be supposed that it was caused by the good location that is not included among the housing quality characteristics.

The dependence between the rent and the utility can be simulated by the linear regression

$$\text{rent} = 2.0624 + 0.4527\ \text{utility}.$$

$$(1.2464)\ (0.0902)$$

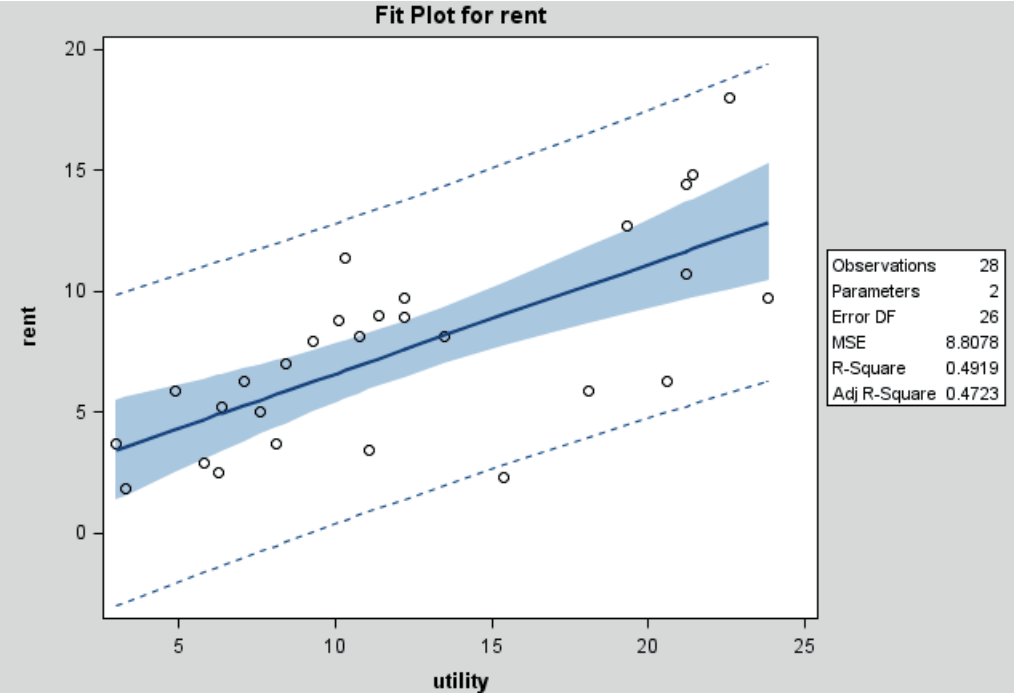
A model as a whole is suitable. The value of the testing statistics of the suitability of the whole model is 25.17. This value is statistically significant for the P-value <0.0001. The determination coefficient reaching 47.23% is sufficiently high. The appropriateness of the regression model can be proved by the fact that the values of the 27 countries of the EU 28 are situated in the 95% responsibility line. The three countries of them (Belgium, Austria and Sweden) are lying almost directly on the regression line. On the contrary Bulgaria is out of 95% predictions limits. It means that the dependence between the rent and the utility is markedly different compared to the model situation. Its position below the line indicates sharply lower rent in regard to the utility.

It would be expected logically that the quality of the housing stock is in the coherence with the economic power of the country defined by the GDP per capita/ PPP and public expenses on the housing and the community amenities. It is obvious from the dendrogram that the countries split into two large groups.

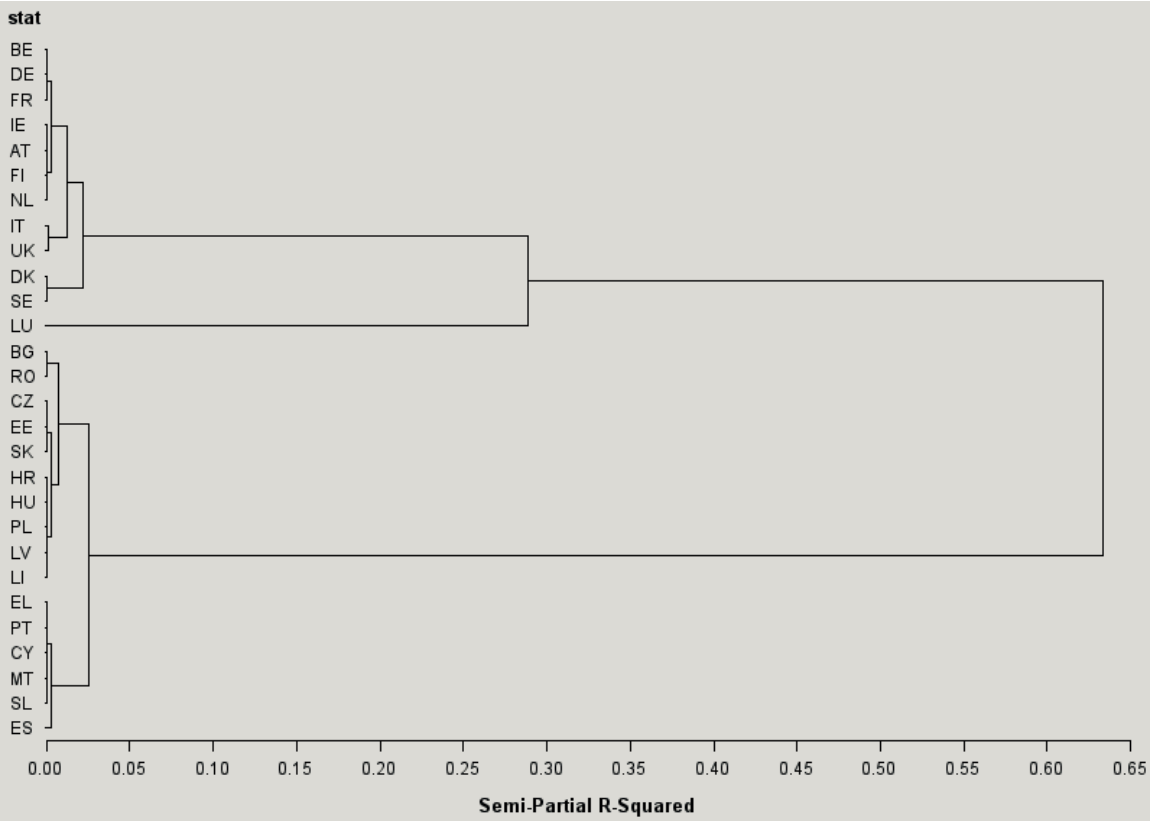
The first group comprises post-communist countries, such as Bulgaria, Romania, the Czech Republic, Estonia, Slovakia, Croatia Hungary, Poland, Latvia and Lithuania. Greece, Portugal, Cyprus, Malta, Slovenia and Spain belong to this group, too. These countries can be characterized by their weaker economic results. The second group consists of twelve developed countries with the unique position of Luxembourg (see Fig. 5).

The share of the public expenditures for the housing and the community amenities is only the relative indicator in connection with the GDP. This indicator can misrepresent the volume of the real support of the country. The indicator of public expenses on the housing and the community amenities per capita seems to be more objective. It is in its absolute value and it can be stated that it really better reflects the situation in the housing in the EU countries. The leading position among the EU countries according to this indicator has Luxembourg, followed by France, succeeded by Cyprus. The highest rate of the public expenditures on the housing and the community amenities has Bulgaria with the value of 2.1%. But this country ended on the eleventh position from the expenses per capita point of view.

According to the share it is followed by Cyprus (1.8%). Cyprus is from the expenses per capita point of view on the second place and this fact proves relatively high GDP per capita in purchasing power parity (PPP). The lowest expenditures on the housing and the community amenities per capita are in Greece, Lithuania and Estonia. Estonia has in the average of the housing problems



4: *The dependence between the rent and the utility*
Source: Own processing



5: *Dendrogram of the similarity of the EU countries from the GDP per capita in the purchasing power parity point of view (PPP) and the share of the public expenses on the housing and the community amenities from the GDP*
Source: Own processing

the high value (15.44). It is the second country in the sequence in the average of the housing problems.

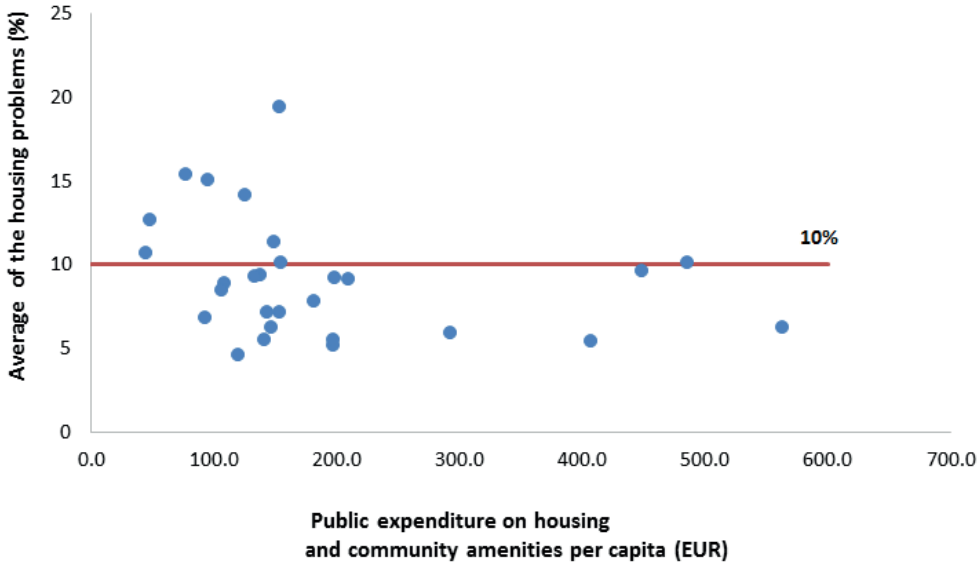
Latvia is ahead of Estonia in this indicator with the value of (19.48%). Denmark is the country with only marginal housing problems and the second highest GDP per capita in PPP among the EU countries. Based on this paradoxical is the fact that Denmark shows only 0.2% of the public expenses for the housing and the community amenities. Sweden is also remarkable with its low share of housing problems, the high rate of the GDP per capita in PPP and relatively low share (0.7) of the public expenses on the housing and the community amenities.

The presented analysis (see Fig. 6) shows the expected results on the one hand, but on the other hand there are also some paradoxes. It is obvious from the Fig. 7 which demonstrates the dependence between the average of the characteristics of the housing problems and the public expenditures on the housing and the community amenities per capita. Countries are divided into two main groups. The first group is typical for its high expenses per capita (Luxembourg, France, Cyprus, Sweden, and Ireland) and shows relatively the low average of the housing problems characteristics.

It is interesting to mention that in countries with the average of housing problems below 10% the value of public expenditures on the housing and community amenities per capita does not make any difference. There are 6 countries above 10% with very low level of public expenditures on housing and community amenities per capita.

Country	Share of public expenditure on housing and community amenities	Public expenditure on housing and community amenities per capita	GDP per capita in PPP	Average of the housing problems
Belgium	0.3	136.6	45 538	9.48
Bulgaria	2.1	153.9	7 328	10.17
Czech Republic	0.7	132.1	18 871	9.40
Denmark	0.2	118.3	59 129	4.68
Germany	0.4	180.0	45 000	7.87
Estonia	0.4	75.4	18 852	15.44
Ireland	0.6	291.6	48 608	5.98
Greece	0.2	43.7	21 857	10.77
Spain	0.5	145.8	29 150	6.32
France	1.1	485.1	44 099	10.22
Croatia	0.8	107.2	13 401	8.92
Italy	0.6	208.3	34 715	9.19
Cyprus	1.8	447.6	24 867	9.69
Latvia	1.0	151.9	15 187	19.48
Lithuania	0.3	46.9	15 649	12.76
Luxembourg	0.5	562.4	112 473	6.29
Hungary	1.1	147.3	13 388	11.41
Malta	0.4	91.6	22 892	6.89
Netherlands	0.3	152.4	50 816	7.26
Austria	0.4	196.2	49 039	5.28
Poland	0.7	94.0	13 435	15.10
Portugal	0.5	105.0	20 995	8.51
Romania	1.4	124.2	8 874	14.21
Slovenia	0.6	139.9	23 314	5.57
Slovakia	0.8	141.6	17 706	7.24
Finland	0.4	196.2	49 055	5.59
Sweden	0.7	406.1	58 014	5.50
United Kingdom	0.5	196.9	39 372	9.30

6: *The analysis of the EU countries according to the chosen indicators*
Source: Own processing



7: *The dependence between the average of the characteristics of housing problems and the public expenditures on the housing and the community amenities per capita*
Source: Own processing

CONCLUSION

The housing quality is in the close relation with the quality of life. It is significantly influenced by the public expenses on the housing and the community amenities. The expressing power of the whole public expenditures on the housing and the community amenities in individual countries of the EU in connection with the housing quality problems does not reflect the real relation between the examined qualitative characteristics and the expenses. Therefore the public expenses indicator calculated per capita was used. Countries with the share of the average housing quality problems below 10% have the large extent of variation of expenditures. It relates to countries with low as well as high level of public expenditures on the housing and the community amenities. The developed countries with the low level of public expenses have been historically characterized by the quality housing stock. We do not suppose that the low level of housing quality problems results from the lower claims of the inhabitants. On the contrary, countries with the high share of the housing quality problems and the low level of public expenses are those, in which the public expenditures are insufficient for the ensuring of the quality housing. It stems from results that countries such as Estonia, Latvia, Lithuania, Hungary, Poland and Romania should re-evaluate the proportion of public expenditures on the housing and the community amenities. The analysis shows that individual problems do not occur isolated and that there is the statistically significant dependence among the qualitative housing characteristics. It can be stated that the socio-economic standard of the EU countries has not only been affected by the Human Development Index, but the housing quality, too.

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