The Housing Policy Changes and Housing Expenditures in the Czech Republic

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Introduction

There are only a few human needs that could be labelled as fundamental; housing is certainly one of them. The shape and potential changes of housing policy very often play an important role in key slogans of political parties. Nevertheless problems and social tensions in this field are being eliminated gradually and with great care. A sudden change in development could have and very often also has far-reaching political implications. The effort of Czech politicians to avoid the field of rental housing skilfully strengthens the conceit of pathological patterns apparent in the sphere of Czech rental housing that after certain time of their surviving they could justly expect to be legalised.

History

Under the Communistic regime, development of housing was subject to tight control of the state. All privately owned housing stock was nationalised (with the exception of family houses) in first step, the creation of new housing co-operatives was allowed then. Housing co-operatives were subjected to the state administration and all rents were controlled by the state. As a result of an extensive housing construction financed from the state budget, the share of state rental flats on the total housing stock was rapidly growing. The quality of these new flats was however very doubtful: large housing estates from concrete created new kind of cities. Four statuses of housing were dominant: state rental flats, company rental flats owned by state companies, co-operative rental flats and privately owned family houses. The state flats used to be assigned to applicants from the waiting list, the company flats used to assign to the company employees.

Tenants of both state and company flats had neither ownership rights nor duties, but they had a "decree" claiming their right to stay at the flat for "unlimited time" and, moreover, they had an automatic right to transfer the "decree rights" to their children. They were provided to applicants for free formally on the basis of needs and availability. Co-operative housing, which had had even pre-Communistic tradition in the Czech Republic, was based on the ideal of "collective investment" of the members of housing co-operative. Each citizen could become a member of one of the co-operatives by paying a membership fee. Although the construction of co-operative houses was partially subsidised by the state, residents had to cover substantial part of construction costs themselves (in some cases simply by paying the money, in other cases by unpaid work during the construction of the house). The rents paid by tenants in co-operative flats had to fully cover the maintenance costs and also included the repayment of the state loans then. The last legal status on housing market during the Communism was represented by privately owned (owner occupied) family houses. Self-construction of family houses was even partially supported through cheaper loans and subsidies.

Transition period 1990-1999

Following important changes on the field of housing have been observable (Kostelecký 2000):

1. The termination of state financed housing construction and deep decrease in the rental housing construction after 1991. The housing construction has increased after 1993, but it was mostly composed from the construction of new privately owned family houses or construction of block of flats that were or will be sold directly into the ownership then (not for the purpose of renting).

2. The rapid development of new private companies highly raised pressure for changing flats into offices and considerable number of foreigners entered the housing market (mainly in the most attractive cities). All that, together with an increasing need of housing for newly

arising families resulted in sharp growth of the prices of housing. Prices of privately owned flats and of family houses have grown geometrically after 1990 and up to 1996 the annual rise in prices of estates was above the general inflation rate.

3. Reformatory governments prepared, put through and relatively successfully implemented fundamental steps leading to the establishment of a more stable environment on the market with ownership housing. They were: introduction of building saving schemes, creation of conditions for establishment of a mortgage market, motivation encouragement in the form of state support of building savings[1], tax deduction of interest instalments from mortgage and building loans (loans from Building Saving Banks) or state non-addressing subvention of interests of mortgage loans (currently 4 %). In spite of the fact that prices of ownership housing increased sharply between the years 1989 and 1996, they remain at a relatively low level when compared to prices in developed Western democracies. The index of accessibility of ownership housing (the number of years of saving needed for purchase of a flat or a house into ownership) is in the Czech Republic, with help from the above mentioned fiscal and financial implements, only slightly higher than it is common in the countries of the European Union. Furthermore, the price of real estate has been decreasing since 1996, in connection with the stagnation of Czech economy, and there has been a considerable sharp drop in interest rates of mortgage credits in connection with the limitation of restrictive politics of the central bank in between 1997 – 1999.

4. Many state-owned blocks of flats have been returned to the previous owners or to their descendants by restitution laws. The government, however, decided to maintain the system of state regulation of the rents in houses returned to their former owners. Majority of state flats has been transferred only from the state to the municipal ownership. Overwhelming majority of company flats has been sold to private owners in the process of privatisation together with factories. Thus, the sectors of private and municipal rental houses have come into existence, while the company owned housing practically ceased to exist and the scope of state owned housing was substantially reduced. Table 1 provides the tenure structure of dwelling units in 1991 (last census): 41 % of dwelling units were owner-occupied, 27 % were state or municipally owned, 21 % were in co-operatives, and 11 % were rentals from private owners. By our estimation, the share of municipal flats decreased to the level of 19 % of the total housing stock and the share of ownership housing rose to the level of 48 % of total housing stock due to the privatisation of municipal flats that has started in 1994. Generally, the municipal flat is offered for sale to actual tenant for very "pleasant" price (sometimes the price is even 10 times lower then the market price for the same kind of flat in the same region).

5. Similarly as in other transforming countries, the reform of housing policy and current legislation in the field of rental housing did not become priority in the realisation of a complex reform of political and economic institutions. On the contrary, the field of rental housing seems to have gained the status of “compensation” for the reduction of living standard of inhabitants resulting from extensive privatisation of former state enterprises,

[1] The state supports building savings by the additional interest of 25% of the sum saved by the holder of the saving account during the current year (one year), maximally 4.500 CZK. After five years standard saving period the holder of the account may apply for qualified building loan with flexible repayment period and established interest rate of 6% p.a. This model has been transferred from Germany known as "Baumspaarkasen" (Building Saving Banks). The holder of the account is entitled to obtain the state support even in the case when the savings will not be used for housing, on the second side he is not entitled to obtain the qualified loan in that case. Though at the beginning of Czech transition the annual six percentage interest rate was relatively very advantageous, current limitation of restrictive monetary politics of Czech National Bank favoured the mortgage credits where the interest rate is moving around 8% (after state support and tax deduction of interests it may be only 2-3%).

increasing unemployment, liberalisation of prices, and release of foreign trade. Politicians postponed the reform in the field of rental housing intentionally to a later date. This was probably founded on relatively noble grounds: from the fear that liberalisation of rent could become the last drop in the full cup of "tolerated sacrifices" of Czech citizens, sacrifices connected with other fundamental reformatory steps.

"The hitch" of Czech housing is not in contradiction with the established belief in financial inaccessibility of ownership housing, which is "expensive" even for majority of young and lower income households in the countries of the European Union. The hitch is in the non-existence of functional rental housing.

Gradual liberalisation of prices of controlled rent has been taking place since the absolute beginning of transformation, regulation was excluded from vacant flats in 1993, and former state flats have been privatised to the hands of current inhabitants under preferential conditions since 1994. In spite of all these facts nothing has happened so far that could be taken for break through in actual policy of rental housing. On the contrary, we believe that privatisation of municipal flats (which is not co-ordinated, time-restricted and not sufficiently specified by central law); continuos non-addressing rent regulation; slow liberalisation of rent; insufficient system of control of use of municipal rental flats; survival of legislative provisions that create factual quasi-owners from tenants; absence of legal definition of social housing and governmental incentives for private investments in the field of social housing have led to a further intensification of current animosity and to the creation of a really alarming state.

I. Housing expenditures of households in the Czech Republic[2]

A common misunderstanding usually prevails when calculating the transparent index of housing expenditures burden of an average Czech household. On the one hand instalments of credits from Building Saving Banks or mortgage credits for purchase of a flat or a house are included into the housing expenditures (this concerns only households that own a house or a flat and eventually those that use a co-operative flat). On the other hand this data is often used to express the financial burden of households living in municipal flats. That is why it is essential to distinguish two ways of calculating *the coefficient of burden*, i.e. coefficient giving the proportion of housing expenditures to the total monthly net income of a household:

coefficient of burden = monthly housing expenditures / the total monthly net income * 100 (%)

when:

1) *basic* housing expenditures = sum total of expenditures on rent, central heating, hot water, electricity, gas, liquid and solid fuel, water supply, and other communal services

2) *complete* housing expenditures = sum total of basic housing expenditures and expenditures on building and flat maintenance, repairs and maintenance of household equipment of investment character, instalments of loans used for construction, reconstruction or purchase of a house or a flat and estate tax

[2] *Family Budget Survey 1996* [FBS 1996] will serve us a fundamental data file for analysis of housing expenditures. It is weighted in several basic categories according to representative survey *Mikrocensus 1996*; furthermore we have used unweighted (!) FBS's 1994, 1996 a 1997 for examination of time series. More detailed information concerning the methodology of FBS's see in Appendix A.

Rent expenses include strictly net rent expenditures of state or municipal flats (utilities are excluded). As far as co-operative flats are concerned, rent (respectively reimbursement for the use of the flat) includes an amount covering interest and amortisation of the unpaid part of investment credit, insurance of co-operative flat, fee for the maintenance of the building, and a housing society administration fee. Some households living in their privately owned flats also entered the amount determined for the fund of repairs as rent in their report diary. This amount is paid by individual owners of flats to the administration (if the entire house has been privatised) or to the housing society or to the municipality.
Expenses for building and flat maintenance (similarly as for repair and household equipment of investment character) include all expenditures for purchase or rent of building machinery, equipment and materials serving for construction or maintenance of the flat or the house that is being used, respectively owned, by the household. Unfortunately, the expenditures for a cabin, garage, cottage used by the household, have been included too.
It is also necessary to point out that estate tax paid for the so called second housing (cabin, cottage, garden and so on) cannot be excluded from FBS. That is why the expenditures on the estate tax for the second housing are also included in the calculation.

The total monthly net income of a household is calculated in such a way that income-tax and obligatory personal health and social insurance are deducted from sum total of overall gross income of all members of the household.

Before the actual results are introduced it is necessary to point out that the below mentioned coefficients of burden are in reality probably lower by several percentage points than it can be elicited from FBS 96. Reasons for this are following:

- inaccuracy and non-representativeness of FBS's that cannot be completely eliminated by weighting of data file in several fundamental categories;
- great extent of grey economics in the Czech Republic as well as non-taxed illegal incomes of Czech families, they are estimated to be at the level of 10 – 20 % of declared incomes;
- underestimation of declared incomes of households is typical for all sociological researches in Czech environment – it is believed that inquiry about income is culturally "unacceptable" (even though this is not intentional underestimation caused by illegal income);
- inclusion of expenditures on second housing in the calculation of coefficient of burden; the expenditures on second housing cannot be relevantly separated from the expenditures on primary housing – this is a great disadvantage when working with FBS's and even more so in the Czech environment where second housing is relatively wide-spread.[3]

According to FBS 96, the coefficient of burden for basic housing expenditures reached 12.93 % for an average Czech household in 1996; the coefficient of burden for complete housing expenditures reached 14.77 %. Basic housing expenditures of different income groups of households are given in detailed Table 2a – they are given in both their absolute (in CZK) and relative value (the coefficient of burden). Complete housing expenditures are presented in Table 2b. All households have been divided, according to the level of their total net income, into 32 equally sized categories. A great number of categories is used for practical reasons: people interested in a more thorough examination of the table can find out what percentage of households belongs to any defined "bearable" rate of burden. The method of calculation of the coefficient of burden, similarly as calculation of actual housing expenditures for statistic evidence, varies in different countries of the European Union. This

[3] According to 1991 census of households, 12,7% of households indicated they have the secondary residence but according to 1991 census of housing residencies (including cottages not separated from the list of primary housing and flats that are not occupied), this share is very probably higher (about 15%). In the EU-12 (Eurostat 1999) the average share of households having the secondary residence was 9% in 1994 with the highest in Spain (16%).

makes eventual comparisons harder. [4] However, it can be said, with certain distortion, that the average coefficient of rent burden is at about the level between 15 - 18 % in these countries. The average coefficient of burden for basic housing expenditures is, according to our definition, at the level between 21 – 23 %, and the average coefficient of burden for complete housing expenditures is at the level between 23 – 26 %[5]. The 20 % coefficient of rent burden, 30 % (at some places 25 %) coefficient of burden for basic expenditures, and 30 % coefficient of burden for complete expenditures are usually taken as maximum bearable rate of burden (so called normative rate of burden). If households, mainly in rental sector, exceed this rate then they can usually claim disbursement of housing allowance. Only a small percentage of Czech households were above the level of normative rate of burden common in the countries of the European Union: no Czech household reached the level of coefficient of rent burden of 20%; only 4.38 % of all Czech households reached the level of coefficient of burden of 25 % and more for basic expenditures; 3.33 % of households reached the level of coefficient of burden of 30 % and more for complete expenditures.

Tables 3a and 3b indicate the coefficient of burden and the structure of household expenditures according to the size of residence of the household. Basic and complete housing expenditures increase, in both their absolute and relative value, depending on the size of the residence – this corresponds with the situation in the countries of the European Union. The biggest "jump" was recorded between the value of coefficient of burden for residencies with up to 5,000 inhabitants and the value of coefficient of burden for residencies with 5,000 up to 20,000 inhabitants (from 9.71 % to 14.21 % for basic expenditures and from 12.14 % to 15.76 % for complete expenditures). This "jump" is caused by the difference between the housing expenditures in the villages (majority of households lives in their own family houses) and the housing expenditures in the city. Further growth is very gradual and the value of coefficient of burden of households living in residencies with more than 100,000 inhabitants is for complete expenditures even lower than for households living in residencies with 50,000 up to 100,000 inhabitants. The higher level of income of households living in the largest cities is probably the cause of it.

Tables 4a and 4b indicate the coefficient of burden and the structure of housing expenditures for categories based on the structure of the household. Considerable social tension can be noticed between households of retired and unemployed people and households, where at least one member of the family is economically active (EA). Whilst the coefficient of burden for households without EA member (mostly households of pensioners) is 18.06 % for basic expenditures (respectively 20.17 % for complete expenditures), the coefficient of burden for households with one EA member is 12.78 % (respectively 14.45 %) and with two EA members is 9.27 % (respectively 10.99 %). The group of households of pensioners seems to be, from the point of view of a relationship between housing expenditures and structure of the household, the most endangered social group. The absence of adequate calculation of housing allowance, that would at least partly cover those expenditures of households of retired people that exceed the bearable rate of burden of their budgets, makes their jeopardy even stronger. Similar, however not so outstanding, tension is noticeable even between childless households and households with

[4] Only the expenditures on heating are sometimes included in basic housing expenditures together with net rent. At other times, they are only the expenditures on net rent of households in rental sector and so-called implicit rent of households in ownership sector.

[5] For example, the average coefficient of rent burden in France was 19.6 % for households in rental sector after deduction of housing allowance in 1996. When including so-called implicit rent of privately owned flats and houses, the coefficient of burden for basic expenditures was 28.6 % for households in rental sector and 24.1 % in ownership sector.

at least one child (Tables 5a and 5b). The coefficient of burden for childless households reached a value of 14.93 % for basic expenditures (respectively 16.94 % for complete expenditures) and the coefficient of burden for households with one child reached only 10.21 % (respectively 11.99 %). Apparently, the influence of the structure of the household is partly displayed here (retired people do not live with their children already). The number of dependent children in the household has very little influence on the height of the coefficient of burden (!); the coefficient of burden for households with two, three and even more children always reached the value of about 10 % (respectively 11 %).

Comparison of the coefficients of burden based on the type of housing is also interesting (Tables 6a and 6b). The difference between the basic and complete expenditures should be more visible here. Whilst the difference between the coefficient of burden for basic expenditures and the coefficient of burden for complete expenditures is about one percentage point for households living in a private rental flat, for households living in their own house this difference is 2.54 percentage points. However, this difference does not, by far, correspond with the situation in the countries of the European Union, where the instalments of credits for the purchase of a privately owned house or a flat burden the budget of households living in "their own" more significantly. It is obvious that in the period of 7 years of transition the range of transactions is not as widely spread, as it is normal in the countries of the European Union. Before the year 1989 the price of real estate was much lower in the Czech Republic (similarly as with the price of construction work for the acquisition or real estate). The qualified loans had usually low interests and long maturity dates. The mortgage market has just come into existence; however, there is no need to believe that not long from now this manner of purchase of estates will not be common.

Households living in a municipal flat reached the highest values of the coefficient of burden (16.94 % for basic expenditures, 17.68 % for complete expenditures), on the other hand, households living in their own family houses reach the lowest values (9.08 % for basic expenditures and 11.62 % for complete expenditures). Comparing the coefficients for basic expenditures, this fact reflects quite a natural condition when households investing into their own housing (or at least into higher disposal of their housing) do not pay a rent and therefore their coefficient of burden is lower than in the rental sector.[6] Deregulation of rents makes itself felt, especially by higher burden of households living in municipal rental sector; nevertheless, the level of burden has not reached European standard here either. If a part of the rent of the lowest income households (retired people) was covered by the housing allowance, the reserve for further rent deregulation is entirely obvious.

If we have a look at the development of the coefficient of burden for all households between 1994 and 1997[7], we will find out, to our surprise, that neither the coefficient for basic expenditures nor the coefficient for complete expenditures has recorded a more significant rise! Whilst it reached the value of 12.89 % for basic expenditures in 1994, 12.23 % (unweighted) in 1996, and 13.18 % in 1997 (respectively the value of 16.55 % for

[6] It should be reminded that households living in so-called private rental sector are in our case always using a flat where a rent is regulated by the state. There is not even one family in the household sample of FBS 96 that would pay market rent, even though there are, in reality, quite a few of these households, at least in a certain age group. It is usually very difficult to include these households into the research; this is often caused by the fact that they do not have permanent residence there and that is why they are inaccessible for all inquiring nets.

[7] In this case we work with unweighted FBS's from the years 1994, 1996 and 1997. Due to the fact that FBS's 1994 and 1997 cannot be weighted by any other, more representative support, for the analysis of time series we are also going to use the FBS 1996 as unweighted so that there is no undesirable divergence. It is necessary to be minimally cautious about the reliability of given data.

complete expenditures in 1994, 14.77 % in 1996 and 15.68 % in 1997), it is somewhat elusive that the coefficient of burden has been increasing (or even decreasing) in such a slow manner. [8] We see the growth of incomes as the main cause for this. In between the years 1994 and 1996 nominal incomes grew faster than general inflation rate in bigger cities (especially in Prague) and these were especially big cities that were affected by the deregulation of rents and energies (as it is shown in Table 3b). Considering the fact that till July 1, 1998 average basic housing expenditures increased only by 13.5 %[9] in comparison with the value for the previous year, no significant growth of the coefficient of burden of an average household can be expected in the first half year of 1998.

The share of households that would exceed the bearable rate of burden of family budgets by housing expenditures (the level of coefficient of burden of 25 % for basic expenditures) was between the years 1994 and 1997 relatively very small. In 1994 the share of these households on the overall number of Czech households was 5.67 %, in 1996 (unweighted) 3.41 % and in 1997 4.77 %. From 1994 until 1997 households living in municipal flats displayed the highest coefficient of burden (from 16.26 % in 1994 up to 16.87 % in 1997). The growth of the coefficient of burden was about the same for all categories of types of housing between 1994 and 1997 (the highest, by 1.8 percentage point, was recorded by households living in their own flats).

The last important data noticeable from time series is the development of the coefficient of burden for the group of households that are burdened the most by housing expenditures. In between the years 1994 and 1997 the coefficient of burden for basic expenditures stayed at about the same level for the group of households of pensioners: it was 20.4 % in 1994 and 19.26 % in 1997. On the other hand the coefficient of burden increased by one percentage point on average for groups of households with one or two EA members. Even though the group of households of retired people is definitely an endangered one, the development of deregulation as well as the increase in pensions have not made their situation worse (yet there is certainly an influence of large savings of these households).

To find out the main factors influencing the height of housing expenditures and the height of rent expenditures we used the method of multiple stepwise regression on FBS 96 data file. This method is represented by successive stepwise acceptance of defined independent variables in resultant regressive model; namely in an order based on the height of the percentage share of these variables, by which they take part in explaining the variation of dependent variable. The model, which should have explained variation of dependent variable basic housing expenditures, was entered by independent variables concerning the characteristics of housing. These were: the size of the flat or house (in m^2), the size of residence, the qualitative category of the flat[10], disposal of the flat or house[11]. It was also entered by characteristics of household – the total net income of the household, the number

[8] According to the Czech Statistical Office the net rent rose by 23 % in between the years 1995 and 1994, by 26 % in between the years 1996 and 1995, and by 49 % in between the years 1997 and 1996 (all together by about 130 %).

[9] The average basic housing expenditures increased by more than 27 % in between July 1, 1996 and July 1, 1997; knowing the discrepancy between the level of market and regulated rent, an increase by 13.5 % in the following year seems to be certainly insufficient.

[10] There are four qualitative categories of flat used by Czech housing administration based on the equipment of the flat by central heating and own toilet and bathroom. The fact is that 90 % of flats are of the first category now in the Czech Republic.

[11] The disposal of flat is defined as the lowest for a rented flat, higher for a co-operative flat, even higher for a privately owned flat, and the highest for a privately owned family house. The household owning the flat are in most cases obliged to form the condominium of owners in the whole house and the disposal of flat may be restricted according to the settlement of the whole condominium of owners.

of dependent children, the number of EA members, the number of retired people, the education and the age of the head of the household.[12]

Accepted regressive model explains 51.4 % of variation of basic housing expenditures. Regression accepted all independent variables but the age of the head of the household into the resultant model. The factor of disposal of housing was chosen as the most important factor influencing the height of housing expenditures; the factor of total net income of the household took the second place (Table 7). Disposal is by far the most important factor of variance of basic housing expenditures: the expenditures of household in rental flats are the highest whilst the expenditures of privately owned family houses are the lowest. The size of flat and its qualitative category are relevant factors as well; on the other hand the structure of the household (number of children, retired people, EA members) and the education of the head of the household play only a minor role in the defined model. Rather an important influence of total net income of the household stresses the fact that similarly as in the countries of the European Union a simple rule applies to housing expenditures of Czech households: "richer households spend more and poorer ones spend less".

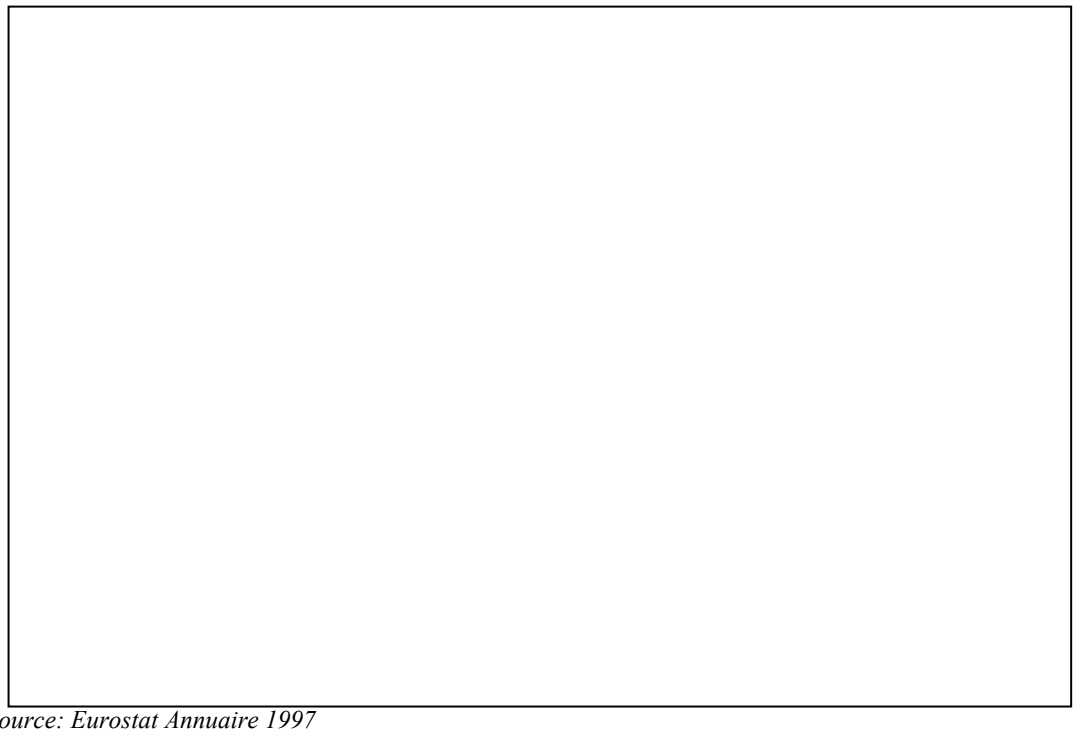
The factor of total net income of the household is, however, much less significant in the regressive model identifying the influence of equally defined independent variables on the height of rent expenditures (for households whose rent is higher than 0). The model explains 32.4% of variation of rent expenditures (Table 8). This time the main factors were by all means the characteristics of housing: the size of the flat or house, disposal of housing (municipal or co-operative flat), the qualitative category of housing; only later on come the number of dependent children and total net income of the household. The education and age of the head, the number of EA members or retired people in the household were completely excluded from the model by stepwise regression. Though higher income households spend more on utilities connected with housing (energies, water supply) they do not pay more for the rent.

I.I. Housing expenditures in the EU countries

Publication *Eurostat Annuaire 97* indicates the share of housing expenditures (rent, implicit rent, heating and electricity) on the total expenditures of European households in 1995 (Figure 1).

[12] The meaning of this regressive analysis was not to gain exact regressive coefficients, but only to specify main factors influencing the expenditures of a household. This is the reason why categorised variables, as the size of residence or disposal, were supposedly considered as continuos variables.

Figure 1: The rate of housing expenditures burden of European households, 1995 (percentage of total household expenditures)



Source: Eurostat Annuaire 1997

According to the Eurostat report the most important item of family budgets in the 70's and 80's were the food, beverages and tobacco expenditures. This category of consumption was shifted to the second position in the 90's. The highest position is currently occupied by the rent, heating and electricity expenditures – this also includes so-called implicit rent for the ownership sector of housing (however, the method of calculation of implicit rent is absolutely impossible in the conditions of Czech rental housing).

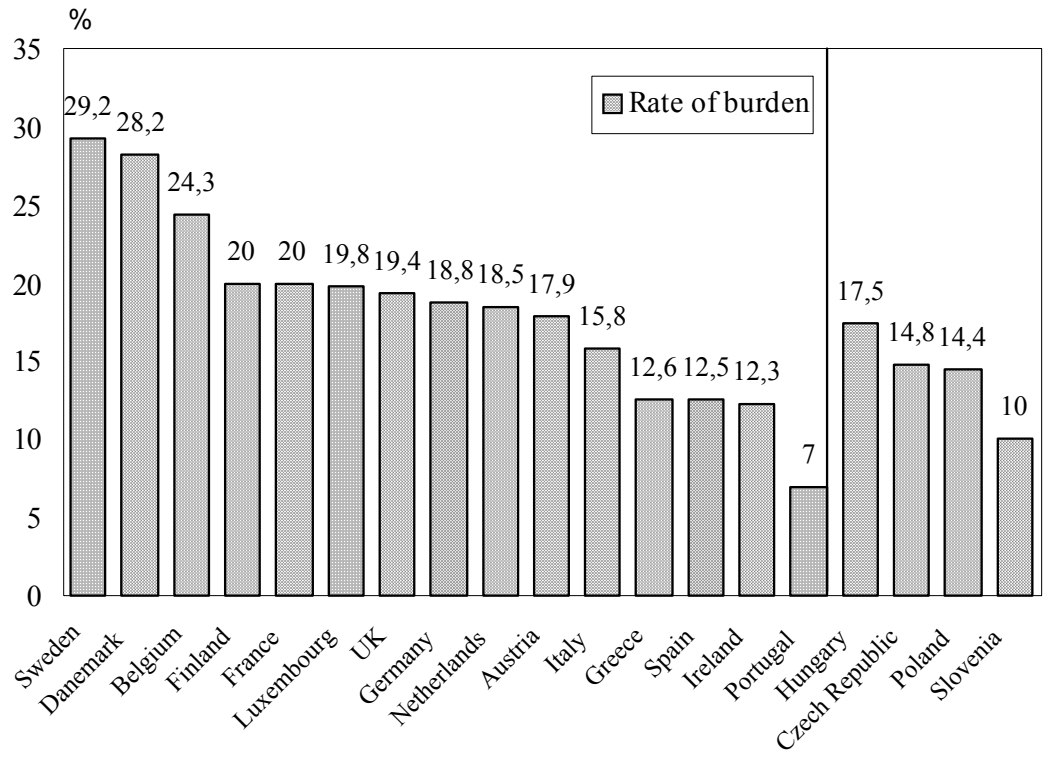
Since 1986 the average share of housing expenditures on the total household expenditures in the countries of the European Union has increased from 18 % (1986) to 19.8 % (1995). The highest increase can be noticed especially in Scandinavian countries, e.g. Sweden (by 7 percentage points) or Finland (by 5 percentage points), an above-average increase can be also seen in Italy (by 3.3 percentage points) and in France (by 3.2 percentage points). Given average coefficient refers, in principle, to complete housing expenditures, based on our definition. However, according to European standards, expenditures on repairs and expenditures on building and housing maintenance of rental flats are not included in these expenditures (they are included in the rent itself). It is also necessary to take account of a lower share of secondary housing in European countries. It is an important fact too that the given rate of burden was already lowered by the housing allowance that is received by an essential part of households in European countries; the real expenditures could be much higher without housing allowance. Furthermore, data supplied by Eurostat are lower than the data we gained through direct contacts of national statistical offices (below in more detail).

Portrait statistique du logement dans les États membres de l'Union Européenne 1995/96 is another resource of international comparisons; it is published by CECODHAS, Paris. Figure 2, shown below, indicates comparison of countries, based on the height of the rate of burden by housing expenditures - now in their classical relationship to total net income (the coefficient of burden). For a greater transparency, we have also indicated data, comparable

to a certain extent, concerning some countries from the Central and Eastern Europe. The entry about Hungary refers to 1997 (complete housing expenditures except households living in market rental sector), the entry about Poland refers to 1998 (basic housing expenditures except market rental sector), the entry about the Czech Republic refers to 1996 (complete housing expenditures except market rental sector), and the entry about Slovenia refers to 1994 (basic housing expenditures except market rental sector).

Figure 2: The coefficient of burden for housing expenditures of European households, 1992

(percentage of total net income)



Source: COCEDHAS 1999, RÚ 1996, Regional Housing Indicator 1995, Price of Housing in Hungary (MRI 1998), Urzad Mieskalnictwa i Rozwoju Miast 1999[13]

According to the information from the Ministry of Housing in Haag the average coefficient of net rent burden (the share of net rent on total net income) was 21,1 % in the Netherlands 1995. With the assumptions that imputed rent in the ownership sector is generally higher than in the rental sector and that the rent forms two thirds of total housing expenditures, we can expect the coefficient of burden was in reality between 6 and 7 percentage points higher in 1995 than the Figure 2 shows (Ministerie van Volkshuisvesting 1998). According to *Housing Finance Review 1999/2000* from Steve Wilcox the average coefficient of burden was 25 % in the Great Britain 1998, i.e. 5 percentage points higher than it is indicated in the Figure. Similarly, the results from the representative survey *Enquete Logement 1996/1997* realised by INSEE (French Statistical Office) show the difference of three percentage points; the average coefficient of burden was 26,7 % in the rental sector without housing allowance and 23 % with housing allowance, the average coefficient of housing burden was 24,1% in the ownership sector and 23,1% with housing benefit. According to our estimation

[13] Even though the publication COCEDHAS was published in 1999, data concerning the rate of burden of individual member states of the European Union refer to 1992!

the real coefficient of burden (with housing allowance) was then around 23 % in France 1997.

From the above mentioned, it becomes clear that the real up-to-date coefficient of burden (in reference to total net incomes of households) is in the countries of the European Union **higher** than it is shown in Figure 2 (drawing from resources of COCEDHAS organisation). The gap between the situation in the Czech Republic and in the EU countries is therefore deeper than it is shown in the Figure. Between the years 1994 and 1998 the basic and complete housing expenditures of Czech households had a **significantly lower** share in family budgets than it was common in the countries of the European Union (and it cannot be expected that the current situation should be distinctly different). The coefficient of burden rose by **imponderable percentage share** for both basic as well as complete expenditures between the years 1994 and 1997. The coefficient of burden for complete expenditures counted for weighted FBS 1996 (its height is 14.77 %) can be taken for the most representative data. Even though the household income is an important factor of the height of basic housing expenditures, it plays only **an insignificant part** in the explanation of the variation of rent expenditures. Households with higher income spend more money on services. However, this does not mean that they would pay more also for basic rent - it is influenced by a non-addressing rent regulation. The social group of retired people is certainly an endangered one (not families with more children). Even more so because of the way of disbursement of housing allowance in the Czech Republic, which does not take into consideration the height of real nor tariff housing expenditures and which contrasts with the construction of housing allowance models in the countries of the European Union completely. Similarly endangered is the group of non-residing households. Even with the increase of 13.5 % of basic housing expenditures included (as of 1 July 1998) and with the knowledge of economical recession in the Czech Republic (the decrease of growth of incomes) - it can still be assumed that the average coefficient of burden of residing households (for complete expenditures) did not reach 17 % (18,5 % for rental sector) in the first half of 1999. Social tensions that are naturally created by such a policy of "idleness" are very bluntly underestimated.

II. Social tensions on the Czech housing market

For our purpose we have simply defined social tension as conflict among those groups of households that have "objectively" significantly unequal status on the housing market. There is an inexhaustible number of conflicts (e.g. unequal status of households with handicapped people or households living in ecologically or socially inappropriate environment and so on). We consider the following three types of social tension as the fundamental ones:

1) the tension between the group of pensioners and the group of households with at least one EA member;
2) the tension between the group of households that own the rental houses gained mostly during the restitution of houses and the households of tenants in these houses;
3) the tension between the group of non-residing households and the group of residing households; more precisely, the tension between the households forced to live in flats with so-called market rent and households living in flats where rent is controlled by the state (as well as the tension between those families that want to change their housing, e.g. because of regional unemployment, but they cannot do it because it contrasts to the interests of those who do not want to change their housing).

"From the objective point of view", we do not consider social tension between groups of households of owners and tenants who gained their housings before 1989 as justifiable. We

believe that profits and losses of all residing households that gained or were given housing before 1989 are more or less equal now. Even though households living in municipal flats reach the highest coefficient of burden now, they were not forced to spend even one crown from their budget when "gaining" their housing. The flat was given to them by the state, respectively the municipality, free of charge and mostly for an unlimited period of time. At the end a large proportion of households living in municipal flats has had or will have the option to buy their flat into ownership for "accounting" and somehow favoured market price. The co-operative flats have, under the law, higher legal disposal than municipal flats now (i.e. there is a possibility to "sell" co-operative flat, buy it into ownership during privatisation or to rent it with the approval of the housing co-operative). Nevertheless, members of a housing co-operative had been forced to pay their co-operative share (fee) before gaining the flat (it equalled even about ten-month-salary before 1989). Furthermore they had to amortise a qualified loan for which the construction of their flat was obtained (70 % of construction costs), by regular instalments of annuity. For all given reasons it was "more expensive" to live in a co-operative flat than in a state flat before 1989. When constructing their houses owners of family houses (that was the only option to become an owner of housing before 1989) profited from construction loans with low interests and long-term maturity dates. In addition, market value of their real estate rose sharply after 1989.

The situation of the group of retired people is a challenge for more fundamental changes in the field of housing in current social policy of the state. Households of retired people very often live in unfit circumstances of "cheap" flats of lower category. The best and the fastest solution to the situation of households of retired people would be a well-adjusted housing allowance, respecting the real housing expenditures. [14]

For ages there has been a tension between the owner of a house and a tenant of a flat in the given house in the private rental sector. After the First World War, when a regulation of rent was gradually introduced for lack of flats, this tension was changed from "gallery" quarrels into a real social conflict. It was reinforced by more thorough rent regulations after the Second World War in perhaps all countries of today's the European Union (it also resulted in a significant decrease of share of private rental sector on the total housing stock of European countries). Ever since the 60's and in some places ever since the 80's there has been a gradual deregulation of prices of rent in the private sector, respectively the prices of rent in the private sector have been controlled less (or not at all) than prices in so-called "social" sector. Thanks to this the piquancy of the social conflict between the owners and the tenants has decreased. Unjustly expropriated buildings have been returned to original owners or their descendants (within the frame of restitution of immovable assets in the Czech Republic), but the rent in housing units of these houses remained as controlled by the state as in rental houses belonging to the state (later to municipalities). Rent control is excluded only from vacant housing units. With respect to the fact that, according to actual legal adjustments, the owner is entitled "to change" his rental flat or even "to bequeath" it to his or her relatives, a case of vacation of a controlled rental flat is rather unusual in bigger cities, because of artificial lack of flats.

[14] Providing a housing allowance is currently liable to testing of family incomes in a quarter of a calendar year (social transfers are taken as income as well). If a family income was lower than 1.6 multiple of a subsistence minimum in the last quarter of a calendar year then the owner of the flat or the tenant with permanent residence is entitled to a housing allowance. This allowance is given all round with no regard to what type of flat entitled household lives in, if it is a municipal, co-operative or ownership flat or a flat in their own house. There is no regard on real housing expenditures of entitled household too. In such a case a housing allowance is more the part of the state social support for the poorest households than the effective mean of state housing policy. Only 3,6 % of Czech households received this "housing allowance" in 1998.

The institutionalised clash of the Civic Association of House Owners with the Association of Tenants has relatively widespread publicity. The owners justify their request to increase rents by lack of finances for basic maintenance of their houses and by pointing out unfair state restrictions of constitutional proprietary rights. The tenants naturally do not want to give up their quasi-proprietary rights.

"The relationships between the owners of rental houses (people who gained them in restitution) and tenants (users) testify the persistence and social strength of the institution of tenancy and enjoyment. The situation is brought to a head because both legal ownership as well as tenancy (quasi-ownership) are represented by strong concrete subjects with completely concrete interests… I also know cases when owners (people who gained houses in restitution) use their established quasi-market machinations proved by life in socialism to gain "their" other proprietary rights. As I found out compensation in money for vacation of flat is an established practice." (Šmídová 1996).

Considering the fact that restitution of rental houses applied to relatively small proportion of housing stock, political will to accommodate valid claims of owners would be suicidal. From a long-term perspective the non-existence of private rental sector (resulting from zero private housing rental construction and continuing dilapidation of already existing fund) can have far-reaching results. The deficit of private rental sphere, which makes up 15 – 20 % of total housing stock in European countries, would mean not only a sharp decrease of so-called market rents. However it would also mean further intensification of social tension between those who are endowed by "a decree" to a rental flat and those who are restricted to free market.

According to the estimate of Terplan (Andrle, Dupal 1999), joint stock company occupied by housing research and territorial planning, since 1991 (a year of census) till now the number of households in "unwanted" co-living (also non-residing households) has increased from 170,000 to 280 – 300,000 households (currently 7 – 7.5 % of all Czech households according to the data from 1991 census). Lack of flats naturally concerns mainly big cities, but almost a half of Czech population lives there. The extent of housing construction decreased sharply immediately after 1990: a construction started before 1990 reached the value between fifty-five and sixty thousand flats per year, in 1991 it was only 10,899 flats, in 1992 8,429 flats and in 1993 7,574 flats! There has been a steady growth of housing construction since 1993 (10,964 flats in 1994, 16,548 flats in 1995, 22,680 flats in 1996, and 33,152 flats in 1997). However, it is made up mainly by construction of family houses and ownership flats and **the share of rental flats on total housing starts** was only **6.1 %** in 1997.

The European Union does not have any common social housing policy - it stays within the jurisdiction of individual countries. Nevertheless, we can find a sector of rental housing called "social housing" in almost every country of the European Union, it creates from 3 % (Spain) up to 40 % (the Netherlands) of the total housing fund.[15] The sector of social housing is non-profitable (the target of construction and operation is not to gain profit). It

[15] The only exception is Greece where there is 100 % of housing fund in private ownership; out of which 75 % is in the ownership of users. A low share of social housing is common especially in South European countries, e.g. Spain (8 % of rental flats, 3% of total housing fund), Portugal (10 % of rental flats) and Italy (6 % of total housing fund). Sweden is also mentioned in some resources as a country without a sector of social housing because the admission into "quasi-public" sector of housing is not restricted (flats are owned by non-profit organisations whose activities are regulated by municipalities). However, the share of this sector in the total rental housing is very high – about 50 % (20 % of the total housing fund) – and that is why we tend to incline towards those resources (Balchin 1996, Kroes, Ymkers, Mulder 1988) that talk about social housing under these circumstances.

can be public (it can be owned by a public-legal subject, e.g. municipality); and it is designed mainly for population with lower incomes, that could not afford to get housing on the free market. The construction of social housing flats is financed either by direct subventions from state, respectively municipal, budgets (there is almost no such a case in the countries of the European Union, though)[16] or by means gained on free capital market, in this case the state contributes to investment cost reduction through the medium of subventions (e.g. of interest instalments). The construction can also be financed by various combinations of private capital and subsidised credits. Private investors are usually granted a certain rate of profit for keeping determined conditions (e.g. in Germany). The allocation of social flats always depends (besides Sweden) on fulfilment of certain social criteria; a law applied nation-wide in many countries defines explicitly the maximum income level of a household for admission into the sector of social housing (e.g. France) or it only specifies targeted groups in some other countries (e.g. Great Britain). The Swedish concept of social housing, when there is no testing of income nor other examination of social need of claiming households (about 20 % of Swedish housing fund), results from the situation of relative housing sufficiency[17], furthermore it is undergoing a profound reform recently.

The household income does not have to be examined only when a contract is signed but it can also be examined during the time of the occupation of social flat. Non-profit organisations providing social housing in France (HLM) are obliged to increase rent to those households whose total incomes overstep the tariff (set by national law) by 40 %. If the household oversteps the given tariff by 10 – 40 % HLM organisations are allowed to increase rent but they are not obliged to do it. Gradual increase of rent is a part of German concept of "transferring" social housing.

If the sector of social housing is not able to cover the entire need of all low income households these households look for rental housing in the private rental sector, where rent is higher. The state or the municipality can help these households to decrease their housing expenditures through the media of targeted housing allowances. Naturally, the claiming housing allowances is not restricted in any way for households in the sector of social housing. Allowances are, in some countries, disbursed, in combination with fiscal relieves upon payment of taxes, even to owners of flat or house (if they are redeeming investment or mortgage loans for their purchase). Even though it varies in different regimes of social state, addressing disbursement of allowances is, in majority of European countries, one of fundamental, if not the fundamental, corner stones of housing policy.[18]

In spite of the fact that some kind of rent regulation is applied in all countries of the European Union (it even exists in the liberal USA) it is nowhere as non-addressing and as detached from real market rental prices as in the Czech Republic. Usually only certain part of the housing stock is liable to crucial regulation, generally this is the social sector of

[16] Mass construction of social flats allocated by public budgets took place in the period of lack of housing after the Second World War. Economical crises and unbearable indebtedness of public budgets in all European countries in the 70's resulted in budget cuts and in profound reforms of state housing policies. Their target was to return ousted private investments into the housing market.

[17] According to the data supplied by Eurostat in 1991, there are 478 flats for 1,000 inhabitants in Sweden, which is by far the most from all countries of the European Union.

[18] The share of households getting housing allowances varies in individual countries and unfortunately it also varies according to different statistic resources. According to the Eurostat, this share was 27 % in France, 22 % in Denmark, 18 % in Spain, 20 % in the United Kingdom, 13 % in Sweden, 18 % in Finland, 15 % in the Netherlands, 9 % in Ireland, in Germany (7 % in former Federal Republic of Germany, 30 % in former German Democratic Republic) and so on. Allowance for housing does not exist only in Greece (apart from support for elderly citizens) and in Italy, it is only a part of social support for the poorest households.

housing. The lowest level of rent in these social flats is, with only unique exceptions, established for the rent to cover all costs connected with housing (so called economical or cost rent): operation, maintenance, administration, repairs and more importantly also instalments of loans that were used to finance the construction of the flat.

One main fact applies thanks to this targeting help to households, and it applies even in Sweden or the Netherlands: **the type of housing always reflects the total income of a household; lowest income groups live in social rental flats, higher income groups live in co-operative and private rental flats, and the highest income groups usually live "in their own".**[19]

Let us return to the Czech Republic of the 90's. Regulation of rents, which are several times under the value of their market equivalent and which do not correspond even with the above defined economical rent, is almost non-targeting and irrespective of the income of a household and of the type of rental housing (regulation of private rental flats). The elimination of regulation in vacant rental flats is the only exception. This fact, apart from already mentioned results, also influences the growing unsatisfied need for flats, especially social flats. What could we call the sector of social housing, though? Municipal and state rental flats? According to the 1991 census data, 27 % of housing stock were made up by rental flats owned by the state or municipality. In our opinion, privatisation of municipal flats, started in 1994, resulted in decrease of this share down to 19 %[20] - this correspondents with slightly above-average representation of social sector in the housing fund of countries of the European Union. However, let us focus on question whether households living in these flats really have lower incomes.

Based on the calculation of several statistic coefficients of data from ISSP 99 research [21] it is possible to prove **that the type of housing that the household lives in is completely independent of the household total income in the Czech Republic. This applies to both the cases when we, in our comparison, include incomes of households living in family houses and when we work only with households living in flats** (Table 9). In other words the share of both rich and poor households is comparable in different types of housing. The influence of "rural" way of ownership housing is certainly indispensable in the Czech environment (overwhelming majority of village inhabitants with lower incomes lives in their own houses and the ownership of a family house does not have the character of a "luxurious" goods as in the countries of the European Union). Nevertheless, statistic significance among the types of housing will not appear even if we release family houses from the analysis and if we evaluate only the situation for households living in flats.

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[19] It is obvious that higher income households live "in their own" while lower income households live in the rental sector – this applies very probably to all countries of the European Union. Due to the targeting allocation of social housing flats, it also applies that households in social housing sector have "significantly" lower average total incomes than households in sector of private rental housing. It is the fact even for the Netherlands; these difference are not of a more significant character only in Sweden, the share of private rental housing is too small in England to come up with such a conclusion. Balchin writes about the situation in Sweden: "There is a certain over-representation of households in the private-rental sector in the highest deciles, but the differences are not great. Taken together, the households in the private-rental sector have somewhat more resources than do those in the social sector." (Balchin 1996). The comparison of level of incomes of households with the type of housing is presented especially by Kroes, Ymkers, Mulder 1988, Balchin 1996, Boelhouwer, van der Heijden 1992.

[20] Our estimation is based on the situation in Prague, we take it for the model sample for the entire republic. There are municipalities where an absolute majority of flats have been privatised and there are municipalities where privatisation has not started yet. Similarly heterogeneous is the situation among individual Prague quarters.

[21] Details on research and its methodology see in Appendix A.

In general, municipal and state flats are smaller, respectively they have fewer living rooms, than co-operative flats. In our opinion, an "ideal" rightful allocation of municipal and state flats would be, in the conditions of relative housing shortage in the Czech Republic (not corresponding with the situation in the countries of the European Union[22]), if flats were divided according to a key: number of members of a household = number of rooms in its flat. There would be only one break – we believe that a three rooms flat would be appropriate for a household with four members (it is usually a family with two children), not a four rooms flat, which so far signifies certain luxury in the Czech Republic. An "ideal" allocated flat for a-five-member-family would be a four rooms flat, for a-six-member family a five rooms flat and so on. It can be seen from the results of ISSP 99 research that 32.16 % of households using a municipal flat lives in a flat bigger than ideal, on the other hand, 21.3 % of households live in a smaller flat. The measure of unequal allocation in percentage representation (rate of flats that are not ideally allocated) is 53.46 %, i.e. a slight majority; the share of households living "above the standards" is higher than the share of households living "below the standards".

The non-existence of transparently defined social sector of housing and factual "non-social" status of municipal flats have fatal consequences for non-residing households. The waiting-time for subvention of a flat can take dozens of years in Prague, even if social criteria for subvention are fulfilled. Furthermore, housing policy in Prague is decentralised into a huge number of city quarters and there is no united concept for judging social necessity within the frame of the entire capital. The allocation of vacant municipal flats is very sporadic (tenants try to "keep" the flat even if they do not actually use it, they are afraid of the housing crises) and it usually takes place only in completely unavoidable cases. The argument of low income is certainly not sufficient for subvention of a flat. The situation is incomparably better in areas with high unemployment rate or with bad natural environment.

The remaining question is – which groups gain the most from the present situation; i.e. for which groups of households is the present "almost non-addressing" regulation of rents in municipal rental flats the most advantageous. Is it perhaps the group of the lowest income households?

The *Regional differences in market housing prices 1996 – 97* research[23] tried to find out, by monitoring advertisements, the level of market rent[24] and some fundamental variables connected with the offered or demanded flat. These variables were the size of the flat, the size of residence and so on. It results, from the conclusions of the study of the team, that the size of residence and the unemployment rate in given region are the main independent variables influencing the height of market rent (Kostelecký 2000). We have carried out a regressive analysis (linear regression) based on the data from this research. In this analysis the dependent variable of the height of market rent is explained by independent continuous variables - the size of the flat (the number of habitable rooms) and the unemployment rate in given region (according to different regions) and by a categorised variable – the size of

[22] In the countries of the European Union, the average number of rooms in dwellings is about 4 (e.g. in 1992 in Germany 4.4, in Finland 3.6, in Great Britain 5), while in the Czech Republic this number was 2.66 in 1991. The average area of a flat is 86.6 m^2 in Germany, 92 m^2 in Sweden and even 107 m^2 in Luxembourg, but only 46 m^2 in the Czech Republic. It is even less than the most backward Greece (in this index) – 79.6 m^2.

[23] More detailed information on research and its methodology see in Appendix A.

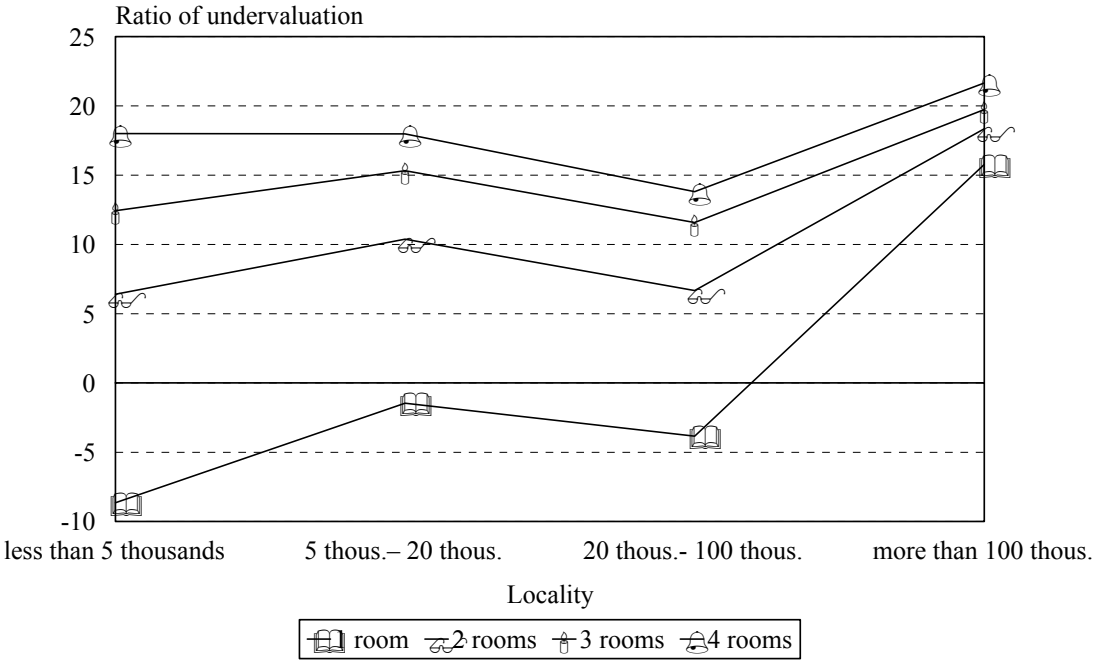
[24] A flat can be rented for market rent if it is in private or co-operative ownership (consent of the co-operative is necessary if it is a co-operative flat) after 1993 or if it is a vacant rental flat in a house that was gained by the owner in restitution.

residence. Prague could not be counted as a separate region from methodological reasons - it would probably increase the percentage of explained variation. Nevertheless, it still reached 47.3 %. We have used appropriate coefficients of regressive equation for the calculation of the height of market rent for households using municipal flats, reportedly examined by FBS 96. FBS 96 research either included the same independent variables or we completed it with them (the unemployment rate in regions). The value of market rent counted by us enabled us to determine the average coefficient of underevaluation for different types of flats or groups of households.

As the original regressive model did not explain the variance of independent variable for 100 % (it is almost impossible in practice) a negative difference between the newly counted market price and the really paid controlled price of rent rose in some cases. This happened only with rent in the smallest flats (with one room) and in areas with the highest unemployment rate (North Bohemian region). The lower level of market rent in these flats, in comparison with the level of controlled rent, does not correspond with reality – it is only the result of already mentioned methodological problems. Average values (not the extreme ones) reflect the real underevaluation of controlled rents much more. The difference between the market and controlled price of rent for an average household (i.e. an average "gift" of the state housing policy to tenants living in municipal flats) reached 6,052 CZK in 1996 (a half of an average month salary). It clearly results, from comparison of *indexes of underevaluation* of flats[25], that underevaluation of a flat (as well as higher profit from regulation for a household) increases with the size of residence (with the exception of cities with 20,000 – 100,000 inhabitants) and the size of flat. It decreases with the level of unemployment in given region. The average value of index of underevaluation was 11.24 for all municipal flats in the Czech Republic in 1996; this means that every municipal flat was on average underevaluated by 1124 % because of rent regulation! The index equals even 20.82 for Prague municipal flats, it is 21.65 for Prague flats with four rooms. A transparent presentation of results can be seen from following figure:

[25] The index of underevaluation was constructed as the difference between the market price and the controlled price of rent divided by the controlled price of rent.

Figure 3: The index of rent underevaluation of flats in the municipal sector of housing, Czech Republic



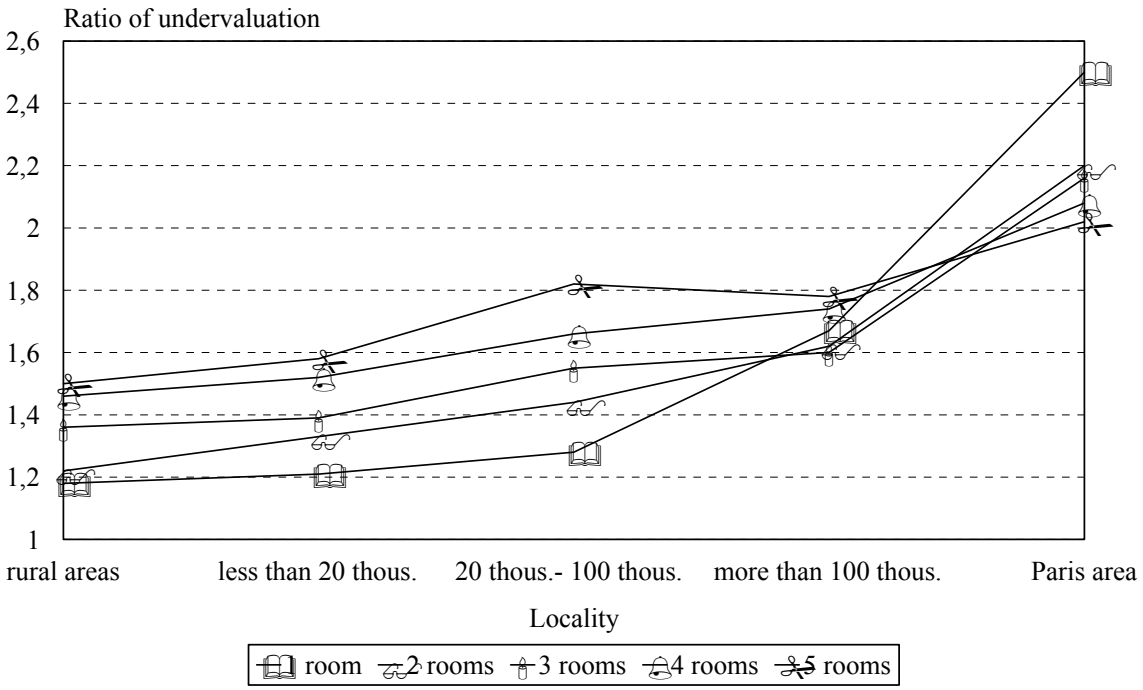
Source: Own calculations, FBS 96, Regional differences in prices in the market with housing 1996 – 97

The extreme lines (of flats with one and four rooms) do not express reality to a certain degree (from the above mentioned methodological problems with transfer of regressive coefficients from one data file to another), in fact they are somewhat closer to the average value of underevaluation. It can be also expected that the average value of coefficient of underevaluation is not as high as we indicate it. For the one thing, the research of market rent included also rents for equipped flats and for luxuriously equipped flats (their height depends on the demand of foreign residents, especially in Prague). And for the other, the eventual deregulation would increase the offer by so far kept empty flats and the level of market prices could significantly decrease because of it. Because of total absence of relevant data, it cannot be found out exactly what the share of kept flats and the elasticity of the offer and demand curves on the housing market are. The demand on rental housing would be restricted by income of households in the case of deregulation too. In reality, the coefficient of underevalutaion could be lower by several percentage points.

Nevertheless, it is clear form the Figure that the level of controlled rents for flats with one room is "roughly" at the same level with their market equivalents (in the villages and in cities with up to 100,000 inhabitants). However, the difference between the market and controlled prices has been rising sharply for flats with more rooms. Cities with 20,000 – 100,000 inhabitants have a special status, the rate of underevaluation of their municipal flats is lower than for the previous category of the residence size. For comparison, we present a similar Figure from the study *The Effect of Social Housing on Households Consumption in France* of authors David le Blanc and Anne Laferrére. Based on an index of

underevaluation defined in the same way, it describes a relationship between the height of "market"[26] rent in private rental sector and controlled rent in social rental sector in France:

Figure 4: The index of rent underevaluation in social housing sector, France



Source: Enquete Logement 1996 – 97 (published in Le Blanc, Laferrére, 1998)

The French specific is, besides almost incomparable difference in the average value of index of underevaluation, that certain decrease of growth of the index sets in for cities with 100,000 inhabitants and more (with the exception of Paris, where there is its growth).

The fact that for group of higher income households (households placed in the two highest quintiles according to total net income) the index of underevaluation had value 11.41 while for group of lower income households (remaining three quintiles) it was only 11.13 (the average was 11.24) is an important discovery for us. This data means that higher income households profit really more on the rent regulation in municipal flats. They also live in this sector of housing more often than it is normal in a sector of social housing in the countries of the European Union.

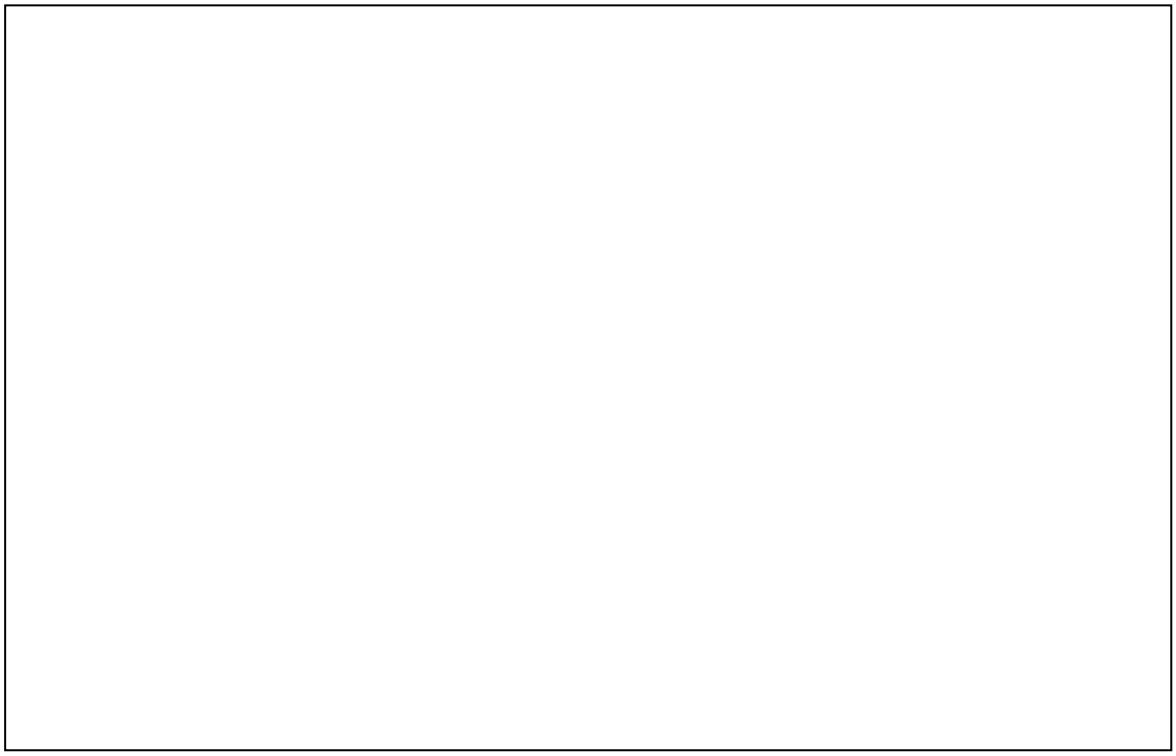
No nation-wide random research, focusing only on the area of housing, has been carried out in the Czech Republic so far. However, various attitudes towards the issue of housing and housing policy have been established within the frame of other examinations. One battery of questions, within the frame of nation-wide representative research *Religion 1999*, dealt with the attitudes of Czech respondents towards the black market with housing and towards the use of flats with state controlled rent by higher income households.[27] Generally, it can be said that the absolute majority of respondents adopts a sharply negative attitude towards so called "black renting" of municipal flats and towards "sales of decrees" for assigned

[26] Market rents are partly controlled in France, similarly as in Germany. It means that the growth of rent cannot annually exceed certain level and the rent price cannot be completely different from the usual level of rent prices for given size of flat in given area.

[27] More detailed information on research and its methodology see in Appendix A.

municipal flats. Respondents are more tolerant of the issue that a flat with state controlled rent is used by higher income households (Figure 5).

Figure 5: Respondents' attitudes towards black market with housing and occupation of rent controlled flats by higher income households



Source: Religion 1999

Complete wording of questions: Housing is a complicated issue these days. Do you think that it is bad or that it is not bad if…
regulation: Rental flat, where the state keeps the rent at a low level (controlled rent), is occupied by a household that has very high incomes if compared with others.
renting: A user of an assigned municipal or state flat rents this flat out even though he or she knows that it is illegal.
black market: The state observes, without any respond, when a user of a municipal flat sells his or her user's rights on the black market, even though it is illegal.

One of the significant factors standing in the background of variation of answers is the respondent's age. **Given situation better suits younger people.** It applies to all mentioned questions that there is a statistically important relationship between an answer to a given question and respondent's age - the higher the respondent's age the higher his or her dissatisfaction with a given situation was. We have actually noticed the most significant correlation relationship between respondent's age and the question of *regulation*; to our surprise this means that especially young people do not mind as much as elderly respondents that a big proportion of controlled rental housing stock is used by higher income households.

In the course of a more detailed classification of the third order it becomes clear that the dependence of age and satisfaction with given situation is for the question of *regulation* given by the size of respondent's residence, to a certain degree. The significance of this relationship is high in smaller towns, the bigger the residence size the lower the significance was– it might disappear completely. The relationship between the age and the variable

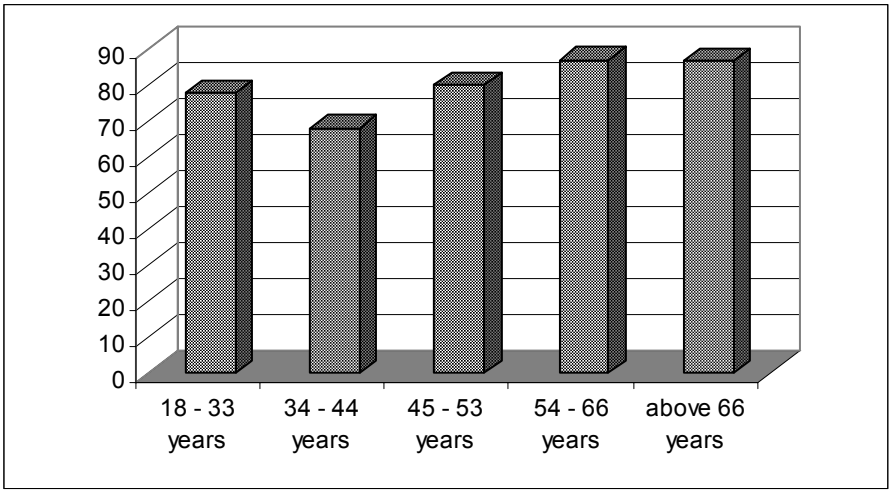
regulation would not be confirmed in cities with more than 100,000 inhabitants and in Prague.

This situation should have an important impact on the entire future housing policy in the Czech Republic. It is obvious; that a great part of young households in big cities makes use of black renting to solve their temporary complicated housing situation. That is why they do not think it too bad (as it is the case with elderly respondents) to rent out these flats, they are afraid that if this chance disappeared it would not be at all possible to find financially acceptable rent. Similarly, it is certain that many young households, especially from smaller towns, make use of existent system of "inheriting" of decrees from grandparents. This is the cheapest way of solving their housing problem. Considering the fact that these days the incomes of younger households are usually higher than incomes of their parents' households, it is obvious and common, that these "new tenants" of municipal flats belong to the group of higher income households.

Even though we do not have any support of data, we do not believe that existent system would suit younger respondents. Bearing in mind that in the near future there will probably be no real change leading to a more stable housing market, these people only use actual pathological patterns in a certain natural way. So to speak, once they have used them they also defend them. However, we think that they would not protest to a more fundamental reform of housing policy in the field of rental housing. On the contrary, they could initiate it. More than 90 % of respondents are against the sale of decrees (answers *it is bad* and *it is really bad*) even in the youngest age category (up to 28 years). 74 % of young respondents are against black renting and 53 % of them are not satisfied with the reality that higher income households live in flats with controlled rent. Compared with younger respondents, elderly ones are usually more critical of current economical and social situation in general.

On the other hand, it can be noticed that attitudes towards housing are a very unusual area: in comparison with elderly people, young people in general express "more industrious" attitudes in the field of social policy. They support more targeting kind of social help than non-addressing social benefits, from which profit even higher income households; it seems to be the other way round, to a certain degree, where the issue of housing is concerned. This fact is confirmed by statistic independence of all attitudes mentioned in our battery of answers on respondent's self-classification on the right-left scale of positional political continuum (!). It is also confirmed by the attitude towards the role of the government (respectively of the state) in the issue of housing, examined by the representative research ISSP *The Role of the Government 1996* (Figure 7).

Figure 7: Generally speaking, should the government be obliged to provide reasonable housing for those who cannot afford it?



Source: The Role of the Government 1996
(columns show the frequency of answers certainly yes and probably yes for different age groups)

The youngest respondents have a relatively more positive attitude towards the state intervening in the field of housing.

Opponents of deregulation often object that, in comparison with households in the countries of the European Union, Czech households are relatively more burdened by food expenses. Even though we cannot reject this argument completely, it is essential to mention the fact that in the last few years nominal incomes of inhabitants have been growing (even in the period of economical stagnation) while nominal prices of food have either stagnated or they have even gone down. The reality of a somewhat higher burden caused by food expenses is also affected by the fact that in 1997 Czech households, influenced by various factors (advertisements, consumption), bought higher amount of food in real prices of 1990 than was the actual case in 1990. The analysis of FBS clearly shows that between the years 1995 and 1997 there was a significant growth of absolute and relative expenditures on leisure time activities[28] of households (Table 10). To tell the truth, consumption and higher expenditures on leisure time activities concern mainly well developed regions and big cities; nevertheless, they will also be affected the most by eventual deregulation.

Opponents' arguments is based also on the fact that the value of coefficient of burden for households in rental sector would increase dramatically because of deregulation; nevertheless, for owners' households would the coefficient remain deep below the average level. The created discrepancy would cause a new social tension on the housing market. However, this argument does not take into account that in the event of vigorous increase of rent many higher income households would leave the "social" sector to the ownership one. This would happen because the increase of rent would not be compensated for them by an adequate housing allowance and living "in municipal" would become disadvantageous for them. As these households would try to obtain their own housing in the end – either for the price of single payments or for the price of long-term instalments of investment credits – the coefficient of burden of these households for complete expenditures would increase considerably. On the other hand withdrawal of these households from the social sector would mean vacation of municipal flats for needier households.

[28] Relative expenditures are defined as the share of leisure time expenditures on total expenditures of household.

A new situation would certainly bring even new problems. We consider the problem of social segregation and exclusion as the gravest one (the social sector of housing could become a domain of the lowest income households).

VII. Conclusion

We consider the following to be the most significant causes of current deformation of the Czech rental market:

- the absence of legal definition of social housing sector (and rules of its functioning);
- the absence of central co-ordination of the privatisation process of municipal flats via a law valid nation-wide;
- the absence of political will for the fastest possible deregulation of rent, making place for creation of a new form of rental policy ("locally appropriate rent");
- the absence of a well-set model for the calculation of housing allowance, which would compensate for increased housing expenditures to lower income household.

We consider the preparation of a new and long-term functional model for the calculation of housing allowance and a fast liberalisation of rent to be completely essential for the Czech housing policy in the future. Contrary to other authors, we believe that even though rents in social sector should follow market principle to a certain degree (i.e. they should be for example higher in Prague than in other cities), regulation of their height should in principle remain, because of the social function of this type of housing. If rents in social housing sector were completely liberalised, it could be expected that the state expenditures for disbursement of housing allowance would increase in a relatively ineffective way. The division of state finances among the support "per brick" and the support "per head", within the state housing policy, is often subject to ideological disputes. Such an approach that does not leave out even one of these forms seems to be sensible, because each form has its advantages as well as drawbacks. Private rental sector should not be in a more significant way bound when assigning the height of rent in the future (certain limits always have their foundation, and besides they are applied in all European countries including Great Britain). Nevertheless, we believe that because of possible social turns it is very important that in the social sector (where there would be valid clear and nation-wide effective criteria for its use) should remain a certain form of regulation of rent (for the "new" social housing flats it may unwound for example from costs of construction, which will reflect even market specifics in a natural way). This would enable mainly starting households to gain appropriate housing.

Privatisation of municipal flats could have been the fastest way to introduce elementary market logic on the rental housing market. It could also be the fastest way to get with anachronisms of quasi-proprietary rights of old rental contracts. However, a successful privatisation policy depends on central control and co-ordination to a great degree (at least with things of general range and use of means gained in privatisation). The chaotic privatisation of flats, in Czech environment exclusively in competency of individual municipalities, made it impossible to control its course in any way, even only statistic one. Even the responsible Ministry for Regional Development does not own relevant information about final balance of privatisation, e.g. for the end of 1998. The plans of individual municipalities for the privatisation of their flats in the coming years are not known either (e.g. the city of Prague wanted to keep 20 % of total Prague housing stock in private ownership for social housing; other municipalities have radically different plans, though). Not only the course of the privatisation is incongruous, similarly is incongruous the use of

means gained in privatisation, as well as the criteria for occupying of vacant municipal flats. Time "diffused" privatisation of flats, that has not become a mass phenomenon yet, as opposed to Hungary or Slovenia, was not accompanied by clear legal restrictions of ownership rights of municipalities and set of rights of concerned tenant households. The privatisation did not have clear date of the start and the date of the end and it did not create sufficiently motivating environment (by the thread of rent deregulation in remaining rental flats). Moreover, in spite of general success of Hungarian privatisation, Hungarian specialists are not so optimistic: the loss of social rental sector to the benefit of ownership sector led to a certain decrease of geographical mobility. For the future it created in principle a rigid housing market not corresponding with the modern model of flexible labour market. The issue of satisfaction of housing needs of the lowest income households remains unsolved as they cannot afford to gain a flat into ownership even if they use all fiscal and tax advantages. Private investments into rental construction have not been re-established in any case (Erdösi, Hegedüs and Somogyi 1999). The share of rental sector on the total housing stock in Hungary, Slovenia and Latvia has rapidly decreased to a historically exceptional level, which certainly does not correspond with the average situation in the countries of the European Union. It is more characteristic for traditional, southern European countries than for countries of western and northern European space. Although the offer predominates the demand these days, it can happen that the situation will turn for certain demographic-economical reasons, and the non-existence of social sector of housing could lead the government to introduction of new regulations of private rental sector and to renewal of "socialistic" housing policy. In current conditions, the best solution seems to be the termination of Czech privatisation or determination of clear date of its ending so that there is no further intensification of already considerable social inequalities (the privilege to gain the flat into ownership for a fraction of its market price).

As we have shown, there is a sector of social rental housing in almost every European country. Its construction is provided by public budgets to a certain degree. This financial participation focuses at present, i.e. after or during fundamental reforms of housing policy in the countries of the European Union, on indirect fiscal instruments (tax advantages, guarantee of national housing funds), eventually on subvention of interests of mortgage credits of private capital. A bigger independence is given to independent social housing operators – housing associations, private investors, non-profit organisations and others. That is why we believe that recovery of state investments in the sphere of construction of social housing would make sense only in the case that these interventions are in concordance with actual tendencies in the countries of the European Union (focus on indirect support, decentralisation of decision making to municipalities, respectively to new independent social housing operators). In contrast to the Czech Republic, Poland and Slovenia have already moved significantly forward by legalising rules for functioning of "new" social rental housing. Several dozens of private companies were founded in Poland and their interest is to take part in construction of new social rental flats. The new concept of housing policy, passed by the Czech government not so long ago (autumn 1999), counts explicitly only with construction of co-operative social flats and not classical rental flats. Housing societies of future tenants would gain various fiscal advantages for housing construction, based on special contracts with competent municipality (that is actually happening even these days) and they would also gain direct state subventions for new, so far municipal, housing construction. Crediting of the construction itself would be covered, apart from a certain financial participation of members of the housing society, by a newly created State Housing Fund. It would either credit the construction directly or it would guarantee private mortgage credit with its assets. Mortgage credits of housing societies would gain 4 % state subvention for credit instalments, so far not claimed.

Any form of co-operative ownership is, for the participant, always more expensive than a classical rental form, because a member of the co-operative is forced to pay down a proportion of the purchase price of the flat from his or her own sources before the actual construction. Entry to the sector, i.e. licence to become a member of the society and a tenant-to-be of a "social" flat built with a more considerable help of public budgets, should not be limited by income or anything else, at least according to the actual conception. Social efficiency is very weak then, and in our opinion, as opposed to the expectancy of authors of the conceptions, this way of exclusively "social" co-operative construction will result in a much greater polarisation and social segregation.

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Appendix A: Data files and surveys

The Family Budget Surveys (FBS's) provide us with a basic data source for an analysis of change in housing expenditure burden of Czech households. FBS was established in 1958 as a quota sample-based survey of households and it is conducted on about 0,1 percent sample. The main quotas currently form following social categories: manual workers, employees, co-operative farmers, pensioners and entrepreneurs. The survey is based on the daily records of all incomes and expenditures of sample households. Its realisation, however, is marked by some methodological and statistical defects: the lowest income households are under-represented in research samples and the definitions of housing expenditure items do not separate the expenditures on primary housing from the expenditures on secondary housing (secondary housing is very popular in the Czech environment and pivotal for its analysis). To assure higher representativness, the FBS 96 was weighted according to Microcensus 1996 by control variables age of head of household (HH), economic activity of HH, sex of HH, finished education of HH and the region of the household residence (8 regions). Microcensus is the most representative research on individual and household incomes in the Czech environment and it is realised by Czech Statistical Office too. FBS 96 served us therefore as the main data source for analysis of housing expenditures and of the coefficient of burden of Czech households. The research sample of FBS 96 contained 2693 Czech households. For time series comparison we were forced to use unweighed FBS 94 and FBS 97 (as well as unweighted FBS 96); the interpretation of time series must be therefore very careful.

The *Regional differences in market housing prices 1996 – 97* research was conducted by a research team, based at the Institute of Sociology (SoÚ AV ČR), that engages in local and regional problems. Data collection in the field was organised by the Institute of Sociology with the co-operation of regional universities. The empirical research was focused on the acquisition of regional differences of housing prices overview. It was particularly focused on the data collection concerning the market costs of housing. The research was held in the all regions of the Czech Republic. The basic characteristics of the house or the flat were also recorded, such as the location, size, quality, ownership relations and other characteristic that may influence the price. The basic source of information about the costs on the housing market were advertisements in the appropriate regional advertisement press and information published by estate agents. Specialised advertising press predominant in the studied regions was surveyed. Data from advertisement press were collected weekly during the period of six months, respectively, from the beginning of September 1996 until the end of February of 1997. Twenty three periodicals were used altogether, out of which eight focused purely on advertisement. Only those advertisements that contained information on the size, locality and price of the housing were analysed. Others were excluded from the analysis. Information on more than 22,000 cases were collected. After the final checking and elimination of incomplete and duplicated data 12,943 records on prices on the side of supply and 8,745 records on the side of demand remained.

The representative survey *Social Inequality and Justice ISSP* (ISSP 99) was organised by the Research team on social stratification of the Institute of Sociology, Academy of Sciences of the Czech Republic, Prague as part of the project Social Trends. The ISSP module was fielded as a core part of the survey on Social Inequality and Justice and it covered general evaluation of inequalities, the role of government in relation to inequalities and social problems, factors of wage differences, support for further growth of inequalities, etc. In addition to the ISSP module the questionnaire included also questions from the Social Justice surveys (International Social Survey Project; Czech Republic 1991, 1995). The size of sample was 1834 respondents and it was two-stage random stratified sample.

Stratification factor were regions, the basic sample unit was household. In the first stage the household was chosen by random selection from the database VACUS (households which pay for electricity, gas, TV or radio), in the second stage the respondent was chosen according to the nearest birthday date.

The representative survey *Religion ISSP* (Religion 1999) was organised as a part of the International Social Survey Programme (ISSP). The survey was devoted to influence of religion to social, political and ethic attitudes. Topics of questions: respondent's religion and church attendance, religious socialisation, religious experiences and feelings, etc. The battery of questions on attitudes towards rental housing market was added. The sample size was 1 223 respondents and it was three-stage random stratified sample. Stratification factor were regions, the basic sample unit was household. In the first stage the region was randomly selected from 150 election districts. In the second stage the households from each district were randomly selected. In the third stage the respondent was selected (Kish grid).

Appendix B: Tables

Table 1: Structure of the Czech housing stock according to the tenure, 1991

Type of Housing	Number of Units (thousands)	Percent of Total
Owner-Occupied		
In family houses	1.509	40%
In other buildings	42	2%
Rental units		
Co-operatives	717	19%
Municipal and state buildings	1.003	27%
In single family houses	66	2%
In private buildings	289	8%
Other rental units	38	1%
Other legal reason	42	1%
Total	3.706	100%

Source: Czech Statistical Office

Table 2a: The average basic housing expenditures and the coefficient of burden for basic housing expenditures according to the different income groups

Income group	Number of households	The share on total number of households	Cumulative frequencies	Housing expenditures (in CZK)	Coefficient of burden (in %)
The lowest income group	81	3,09	3,09	823	22,11
2	82	3,13	6,22	1007	24,42
3	81	3,08	9,31	986	21,69
4	83	3,18	12,48	945	19,35
5	83	3,14	15,63	1096	20,65
6	82	3,12	18,75	1089	18,35
7	82	3,13	21,88	960	13,84
8	82	3,12	25,00	1066	13,74
9	83	3,14	28,14	1263	15,46
10	81	3,08	31,22	1369	16,02
11	82	3,13	34,36	1334	15,07
12	83	3,15	37,50	1329	14,24
13	81	3,10	40,60	1465	14,80
14	83	3,16	43,76	1426	13,68
15	82	3,13	46,89	1429	12,84
16	81	3,09	49,98	1447	12,23
17	83	3,16	53,15	1404	11,27
18	82	3,11	56,25	1537	11,71
19	82	3,13	59,38	1453	10,56
20	82	3,12	62,51	1461	10,16
21	82	3,11	65,61	1478	9,86
22	83	3,16	68,77	1576	10,11
23	82	3,13	71,90	1454	9,01
24	82	3,13	75,03	1605	9,59
25	82	3,11	78,13	1625	9,26
26	82	3,13	81,26	1615	8,77
27	82	3,13	84,39	1593	8,27
28	82	3,14	87,53	1769	8,72
29	82	3,11	90,64	1828	8,46
30	81	3,09	93,73	1824	7,76
31	83	3,17	96,91	1831	7,03
The highest income group	81	3,09	100,00	1796	5,31
Total	2628			1403	12,93

Source: FBS 96

Table 2b: The average complete housing expenditures and coefficient of burden for complete expenditures according to the different income groups

Income group	Number of households	The share on total number of households	Cumulative frequencies	Housing expenditures (in CZK)	Coefficient of burden (in %)
The lowest income group	81	3,09	3,09	871	23,42
2	82	3,13	6,22	1058	25,64
3	81	3,08	9,31	1076	23,68
4	83	3,18	12,48	1020	20,89
5	83	3,14	15,63	1151	21,68
6	82	3,12	18,75	1166	19,67
7	82	3,13	21,88	1087	15,64
8	82	3,12	25,00	1176	15,19
9	83	3,14	28,14	1500	18,36
10	81	3,08	31,22	1508	17,65
11	82	3,13	34,36	1435	16,22
12	83	3,15	37,50	1626	17,43
13	81	3,10	40,60	1638	16,54
14	83	3,16	43,76	1590	15,24
15	82	3,13	46,89	1662	14,96
16	81	3,09	49,98	1710	14,44
17	83	3,16	53,15	1564	12,56
18	82	3,11	56,25	1702	12,96
19	82	3,13	59,38	1831	13,32
20	82	3,12	62,51	1627	11,31
21	82	3,11	65,61	1663	11,09
22	83	3,16	68,77	1794	11,52
23	82	3,13	71,90	1668	10,34
24	82	3,13	75,03	1897	11,33
25	82	3,11	78,13	2026	11,54
26	82	3,13	81,26	2388	12,93
27	82	3,13	84,39	2101	10,92
28	82	3,14	87,53	2198	10,84
29	82	3,11	90,64	2182	10,09
30	81	3,09	93,73	2344	9,97
31	83	3,17	96,91	2301	8,84
The highest income group	81	3,09	100,00	2394	6,92
Total	2628			1655	14,77

Source: FBS 96

Table 3a: The structure of basic housing expenditures (in CZK) and the coefficient of burden (in %) for basic expenditures according to the size of residence of household

	up to 4 999 inhabitants	**5 000 - 19 999 inhab.**	**20 000 - 49 999 inhab.**	**50 000 - 99 999 inhab.**	**above 100 000 inhab.**
Total net monthly income	13031,85	12037,01	12795,13	12977,58	14443,11
Average size of family	2,67	2,35	2,51	2,39	2,38
Average number of children	0,78	0,64	0,72	0,64	0,63
Average number of EA members	1,26	1,08	1,11	1,11	1,16
Total of housing expenditures	**1109,16**	**1384,95**	**1506,89**	**1568,59**	**1662,31**
Rent	121,26	302,56	332,06	398,63	469,06
Central heating, hot water	51,23	349,96	465,17	508,99	462,78
Electricity	478,25	307,64	269,23	239,82	251,33
Gas	146,55	184,92	172,52	181,33	164,95
Fuels	211,74	49,61	47,00	12,65	17,74
Water supply	69,47	130,19	146,63	147,95	157,97
Other services	31,56	61,31	72,07	78,61	136,66
The coefficient of burden	**9,71**	**14,21**	**14,12**	**14,70**	**14,67**

Source: FBS 96.

Table 3b: The structure of complete housing expenditures (in CZK) and the coefficient of burden (in %) for complete expenditures according to the size of residence of household

	up to 4 999 inhabitants	**5 000 - 19 999 inhab.**	**20 000 - 49 999 inhab.**	**50 000 - 99 999 inhab.**	**above 100 000 inhab.**
Total net monthly income	13031,85	12037,01	12795,13	12977,58	14443,11
Average size of family	2,67	2,35	2,51	2,39	2,38
Average number of children	0,78	0,64	0,72	0,64	0,63
Average numbed of EA members	1,26	1,08	1,11	1,11	1,16
Total of housing expenditures	**1448,57**	**1581,25**	**1732,93**	**1786,95**	**1869,10**
Rent	121,26	302,56	332,06	398,63	469,06
Central heating, hot water	51,23	349,96	465,17	508,99	462,78
Electricity	478,25	307,64	269,23	239,82	251,33
Gas	146,55	184,92	172,52	181,33	164,95
Fuels	211,74	49,61	47,00	12,65	17,74
Water supply	69,47	130,19	146,63	147,95	157,97
Other services	31,56	61,31	72,07	78,61	136,66
Estate tax	19,57	10,69	12,63	10,64	14,16
Building and flat maintenance	254,39	131,20	165,09	123,26	162,21
Repairs and household equipment of investment character	33,60	23,16	24,00	24,96	23,40
Instalment for building and mortgage loans	30,53	30,26	22,05	57,62	7,47
The coefficient of burden	**12,14**	**15,76**	**15,98**	**16,16**	**16,07**

Source: FBS 96

Table 4a: The structure of basic housing expenditures (in CZK) and the coefficient of burden (in %) for basic expenditures according to the number of economically active members of household

	Without EA members	1 EA member	2 EA members
Total net monthly income	6795,12	11963,28	18383,56
Average family size	1,52	2,47	3,22
Average number of children	0,00	0,91	1,09
Total of housing expenditures	**1149,98**	**1381,46**	**1599,49**
Rent	261,71	333,89	309,58
Central heating, hot water	276,03	338,23	347,47
Electricity	255,63	315,98	399,40
Gas	129,19	132,36	209,63
Fuels	87,00	63,14	102,44
Water supply	84,42	123,34	149,32
Other services	54,77	77,35	82,64
The coefficient of burden	**18,06**	**12,78**	**9,27**

Source: FBS 96

Table 4b: The structure of complete housing expenditures (in CZK) and the coefficient of burden (in %) for complete expenditures according to the number of economically active members of household

	Without EA members	1 EA member	2 EA members
Total net monthly income	6 795,12	11 963,28	18 383,56
Average family size	1,52	2,47	3,22
Average number of children	0,00	0,91	1,09
Total of housing expenditures	**1 313,53**	**1 610,67**	**1 928,12**
Rent	261,71	333,89	309,58
Central heating, hot water	276,03	338,23	347,47
Electricity	255,63	315,98	399,40
Gas	129,19	132,36	209,63
Fuels	87,00	63,14	102,44
Water supply	84,42	123,34	149,32
Other services	54,77	77,35	82,64
Estate tax	11,49	7,99	20,18
Building and flat maintenance	124,97	159,52	234,57
Repairs and household equipment of investment character	20,42	26,12	32,10
Instalment for building and mortgage loans	5,79	33,64	41,24
The coefficient of burden	**20,17**	**14,45**	**10,99**

Source: FBS 96

Table 5a: The structure of basic housing expenditures (in CZK) and the coefficient of burden (in %) for basic expenditures according to the number of children of household

	Without children	1 child	2 children	3 and more children
Total net monthly income	10253,20	16437,56	17800,24	17875,04
Average family size	1,66	3,00	3,95	5,06
Average number of EA members	0,75	1,77	1,77	1,58
Total of housing expenditures	**1254,51**	**1515,52**	**1675,51**	**1730,00**
Rent	276,16	322,65	337,83	346,69
Central heating, hot water	292,54	349,77	385,87	322,68
Electricity	290,16	350,55	415,45	478,38
Gas	149,75	179,76	195,62	193,36
Fuels	91,62	81,47	78,73	117,57
Water supply	92,95	148,81	172,98	182,59
Other services	61,27	84,16	91,27	88,72
The coefficient of burden	**14,93**	**10,21**	**10,01**	**10,14**

Source: FBS 96

Table 5b: The structure of complete housing expenditures (in CZK) and the coefficient of burden (in %) for complete expenditures according to the number of children of household

	Without children	1 child	2 children	3 and more children
Total net monthly income	10253,20	16437,56	17800,24	17875,04
Average family size	1,66	3,00	3,95	5,06
Average number of EA members	0,75	1,77	1,77	1,58
Total of housing expenditures	**1478,32**	**1835,17**	**1960,91**	**1948,39**
Rent	276,16	322,65	337,83	346,69
Central heating, hot water	292,54	349,77	385,87	322,68
Electricity	290,16	350,55	415,45	478,38
Gas	149,75	179,76	195,62	193,36
Fuels	91,62	81,47	78,73	117,57
Water supply	92,95	148,81	172,98	182,59
Other services	61,27	84,16	91,27	88,72
Estate tax	14,17	13,38	16,06	18,10
Building and flat maintenance	164,70	246,31	189,51	119,58
Repairs and household equipment of investment character	23,40	36,30	28,75	28,69
Instalment for building and mortgage loans	19,84	22,76	51,29	52,02
The coefficient of burden	**16,94**	**11,99**	**11,53**	**11,37**

Source: FBS 96

Table 6a: The structure of basic housing expenditures (in CZK) and the coefficient of burden (in %) for basic expenditures according to tenure of household

	Private rental flat	Municipal rental flat	Co-operative flat	Own flat	Own family house
Total net monthly income	12815,53	12328,98	13902,79	14435,75	13322,73
Average size of family	2,26	2,34	2,52	2,58	2,63
Average number of children	0,55	0,64	0,73	0,71	0,75
Average number of EA members	1,13	0,99	1,31	1,16	1,23
Total of housing expenditures	**1521,19**	**1661,20**	**1679,63**	**1329,74**	**1040,90**
Rent	502,54	530,39	468,09	184,38	0,46
Central heating, hot water	246,98	514,62	651,95	323,80	5,14
Electricity	279,53	232,22	221,03	337,16	482,93
Gas	173,17	98,70	76,12	192,23	264,17
Fuels	48,39	27,94	19,06	58,59	181,16
Water supply	148,42	158,22	138,29	130,87	80,25
Other services	116,44	100,14	99,86	94,73	27,47
The coefficient of burden	**14,86**	**16,49**	**14,62**	**10,52**	**9,08**

Source: FBS 96

Table 6b: The structure of complete housing expenditures (in CZK) and the coefficient of burden (in %) for complete expenditures according to tenure of household

	Private rental flat	Municipal rental flat	Co-operative flat	Own flat	Own family house
Total net monthly income	12815,53	12328,98	13902,79	14435,75	13322,73
Average size of family	2,26	2,34	2,52	2,58	2,63
Average number of children	0,55	0,64	0,73	0,71	0,75
Average number of EA members	1,13	0,99	1,31	1,16	1,23
Total of housing expenditures	**1658,31**	**1807,56**	**1944,17**	**1548,94**	**1387,55**
Rent	502,54	530,39	468,09	184,38	0,46
Central heating, hot water	246,98	514,62	651,95	323,80	5,14
Electricity	279,53	232,22	221,03	337,16	482,93
Gas	173,17	98,70	76,12	192,23	264,17
Fuels	48,39	27,94	19,06	58,59	181,16
Water supply	148,42	158,22	138,29	130,87	80,25
Other services	116,44	100,14	99,86	94,73	27,47
Estate tax	6,88	6,18	10,24	12,05	24,87
Building and flat maintenance	91,32	111,32	190,77	97,94	248,76
Repairs and household equipment of investment character	25,96	18,37	22,58	41,11	35,32
Instalment for building and mortgage loans	12,16	10,30	37,96	60,76	37,54
The coefficient of burden	**15,86**	**17,68**	**16,34**	**12,17**	**11,62**

Source: FBS 96

Table 7: The independent variables in the regression model explaining the variation of basic housing expenditures (in order according to their significance)

Independent variable	t	Significance
DISPONI	-28,903	0,000
INC	5,688	0,000
M2	11,549	0,000
KAT	-10,783	0,000
RES	9,037	0,000
CHILD	10,702	0,000
RET	8,977	0,000
EA	8,400	0,000
EDUC	3,488	0,000

Source: FBS 96

DISPONI - legal disposal with the flat or house (1-rental flat, 2-co-operative flat, 3-own flat, 4-own family house)
INC - total net monthly income of household
M2 - size of flat or house (in m^2)
KAT - qualitative category of the flat or house (I., II. , III. or IV.)
RES - size of residence
CHILD - number of dependent children of household
RET - number of retired members of household
EA - number of economically active members of household
EDUC - education of the head of household

Table 8: The independent variables in the regression model explaining the variation of rent expenditures (in order according to their significance)

Independent variable	t	Significance
M2	17,242	0,000
DISPONI	-12,233	0,000
KAT	-6,054	0,000
CHILD	4,457	0,000
INC	3,097	0,002
RES	2,170	0,030

Source: FBS 96

M2 - size of flat or house (in m^2)
DISPONI - legal disposal with the flat or house (1-rental flat, 2-co-operative flat, 3-own flat, 4-own family house)
KAT - qualitative category of the flat or house (I., II. , III. or IV.)
CHILD - number of dependent children of household
INC - total net monthly income of household
RES - size of residence

Table 9: Total net income of household according to the type of housing (without family houses)

Type of housing	Total net income of household					Total
	first quintile	second quintile	third quintile	forth quintile	fifth quintile	
municipal or state flat	95 *(20,9)*	104 *(22,9)*	79 *(17,3)*	103 *(22,6)*	74 *(16,3)*	455 *(100)*
co-operative flat	50 *(16,7)*	70 *(23,4)*	46 *(15,4)*	70 *(23,4)*	63 *(21,1)*	299 *(100)*
owner-occupied flat	25 *(20,7)*	28 *(23,1)*	23 *(19)*	26 *(21,5)*	19 *(15,7)*	121 *(100)*
private rental flat	19 *(27,5)*	15 *(21,7)*	13 *(18,8)*	12 *(17,5)*	10 *(14,5)*	69 *(100)*

Tests:	value	df	significance
Pearson Chi-quadrate	8,855	12	0,715
Likelihood Ratio	8,730	12	0,726
T-test	-17,672	943	0,000

Source: ISSP 1999
Note: The first figure refers to the absolute frequency in the research sample, the second figure is the relative row frequency in %.

Table 10: Relative expenditures of Czech households during the transition

1990	1991	1992	1993	1994	1995	1996	1997	
29,09	30,80	29,75	31,78	29,05	29,86	30,75	29,13	**food**
7,68	7,36	6,97	5,72	6,74	7,09	5,8	5,65	**beverages+tobacco**
10,92	11,89	14,79	17,03	17,45	17,46	17,62	19,37	**housing**
8,05	8,06	7,75	8,05	7,77	6,87	8,59	8,68	**housing equipment**
10,5	10,33	9,77	8,92	10,01	10,67	9,48	9,1	**transport**
12,35	10,40	9,45	9,65	8,94	6,68	6,14	5,46	**clothing+footwear**
2,77	4,46	5,03	4,19	5,25	5,45	4,89	5,09	**personal care**
11,79	10,92	11,20	11,01	10,38	11,28	13,1	13,09	**leisure time**
6,95	5,92	5,48	4,14	4,69	4,86	4,11	4,43	**miscellaneous**

Source: FBS's 1990-1997
Note: Relative expenditures (first row figure) are defined as the share of x-expenditures on the total household expenditures.